

Testimony of

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Airline Delays and Consumer Issues

## **INTRODUCTION**

The National Air Traffic Controllers Association (NATCA) is the exclusive representative of over 14,000 air traffic controllers serving the Federal Aviation Administration (FAA), Department of Defense and 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.

Aside from the millions of air travelers who experienced the pain and frustration of this summer's record level of flight delays first-hand, nobody had a better view of the congested runways, taxiways, gate ramps and airways than this nation's air traffic controllers. These controllers worked record amounts of hours and overtime in a high stress work environment, where most facilities were understaffed, to try and move the system along as efficiently as possible, while keeping safety above all as our highest priority and guiding principle.

As part of our commitment to serving the flying public and watching out for air travelers' best interests, we have created a web site devoted to helping travelers avoid flight delays and receive advice from the people with the front-row perspective on the National Airspace System – the air traffic controllers. NATCA launched [www.avoiddelays.com](http://www.avoiddelays.com) in 2006 as flight delays began their ascent into record territory. Then this spring, we added some enhancements to improve the site, including the addition of tips from controllers at each of the busiest airports across the country, offering words of wisdom as to the best times to fly, and many other nuggets of useful information about the operation at those airports.

But despite NATCA's best efforts, no amount of assistance has seemed sufficient thus far in 2007. As *The Washington Post* stated in an editorial two weeks ago, "This summer in air travel was terrible." The delays were the worst since the federal government started keeping a running total in 1995.

## **AS NEW YORK GOES, SO GOES THE NATION**

The problems this summer mostly revolved around the highly congested New York airspace, where one-third of all flights pass through daily. Three of the five worst airports for delays -- Newark Liberty International, John F. Kennedy International and La Guardia -- all serve the New York metropolitan area. As the *Post* reported, "time and again, trouble at those airports means trouble almost everywhere else."

In her final public remarks two weeks ago, former FAA Administrator Marion Blakey cited New York, but she also talked about Chicago's O'Hare International Airport, where in 2004, the FAA forced the airlines to reduce the number of takeoffs and landings between 7 a.m. and 8 p.m. to 88 per hour, down from a high earlier this decade of 130 or more. As a result, according to the *Post*, delays were reduced by 24.5 percent in 2005.

However, NATCA's research shows that O'Hare is still one of the most congested and overscheduled airports in the country and that is having an effect on the increasing delays. O'Hare, the three New York airports and Philadelphia International round out a "Top Five" list of the most overscheduled airports in the country, which NATCA believes is the number one reason for the surge in delays in 2007.

As early as 2000 and 2001, when NATCA made regular appearances before this committee and also before various Senate committees that were working to try and solve the problem of flight delays, we talked directly, and in great detail, about the problem of ground capacity and airline over scheduling, identifying this as a major concern. Below is from our testimony in May 2001:

*"An airport's capacity to handle air traffic is a function of its size, the layout of its runways, the air traffic patterns, both arriving and departing, and the time frame in which a surge of traffic must be dealt with due to airline scheduling. Our system is built to allow for unfettered discretion in adding demand. However, you can not add limitless demand to a finite system. Case in point is what happened at New York's LaGuardia Airport last summer (2000) when airlines filed for 600 slot exemptions within about a week. Market forces failed to limit the number of flights at LaGuardia, so the FAA and the New York/New Jersey Port Authority had to step in.*

*"Delays occur every day at every major U.S. airport. Schedules are made to reduce operating costs and maximize revenue without regard for other airlines, terminal airspace or airport capacity. At 'peak' times, dozens of planes are simultaneously taxiing for take-off or queuing above the airport in a finite amount of terminal airspace. This is where the laws of physics kick in. Given runway capacity, only certain number of flights can depart and arrive within a specified time period. Therefore, scheduling during peak hours contributes to delays at busy airports even in good weather. All scheduled flights will not be able to arrive on time. Responsible scheduling of flights within airport capacity limits will go a long way toward alleviating delays."*

Here we are again, more than six years later, and NATCA's message on this subject has not changed: **Scheduling during peak hours contributes to delays at busy airports even in good weather. All scheduled flights will not be able to arrive on time. Responsible scheduling of flights within airport capacity limits will go a long way toward alleviating delays.**

We were pleased to hear Administrator Blakey echo our position in her farewell speech when she told the Aero Club of Washington, "The airlines need to take a step back on scheduling practices that are at times out of line with reality. ... I predict passengers will continue to be fed up with delays, and that's got to be taken more seriously by our airlines."

However, these comments were too little, too late, coming at the end of the summer travel season and not before, when controllers knew over scheduling would be the reason for a surge in delays. NATCA agrees with Chairman Costello, who said the administrator waited too long to criticize airlines for over scheduling, and said she should have made her remarks in January "when they might have had some effect on the summer travel season."

NATCA is aware that many pilots share our view that ground capacity, not air capacity, is where the problems lie in our overcrowded system. In a recent article in an aviation magazine, pilot J. Mac McClellan wrote: "The point of this — other than the obvious, that New York is a pain in the butt at rush hour — is that pavement, not airspace, is the fundamental congestion problem." (Flying Magazine, J. Mac McClellan, September 2007, "Left Seat: There Is Plenty of Airspace")

## **ATLANTA'S NEW RUNWAY IS AN EXAMPLE OF HOW CAPACITY CAN BE INCREASED AND DELAYS DECREASED**

The best evidence that supports NATCA's position that current problems are ground-based is at Atlanta Hartsfield-Jackson International Airport.

Before the new runway was opened last year, the departure rate per hour was 96 in clear weather; what is known as "VFR" (visual flight rules) conditions.

But with the new runway -- making three total for arrivals and departures -- the VFR departure rate increased to 114 aircraft per hour and 104-106 aircraft per hour in less ideal weather conditions. The arrival rate now stands at 126 aircraft per hour in VFR conditions, 112 per hour in less ideal weather conditions and 96-104 in poorer weather conditions, known as "IFR" (instrument flight rules).

Additionally, Atlanta has built a taxiway (Taxiway Victor) that goes around Runway 26L/8R, a designated departure runway, virtually decreasing the possibility of runway incursions by 95 percent according to ATL controllers and ensuring a continuous flow of departures off the north side of the airport. Once again, concrete, when used correctly, can decrease delays off the airport and almost all possibilities of runway incursions and read-back / hear-back errors in communications between pilots and controllers.

The bottom-line is simple: Atlanta's fifth runway was opened on May 27, 2006. A comparison of operations and delays was run from May 27 to September 30, 2006 against the same time period in 2005. ATL had an increase 3,097 Total Operations and had 13,927 fewer delays in 2006.

## **EXACTLY HOW AIRLINE OVERSCHEDULING IS DRIVING THE SURGE IN FLIGHT DELAYS**

The following, from an operational perspective, is a quick review of five airports facing a chronic delay situation: JFK, EWR, ORD, LGA, and PHL. All data comes from the Enhanced Traffic Management System (ETMS) – a tool used by Traffic Management staff to predict, on national and local scales, traffic surges, gaps, and volume based on current and anticipated airborne aircraft. That data allows traffic management staff to use optimal airport configurations to maximize capacity at each airport.

### **New York-JFK**

At New York-JFK Airport, the optimum arrival configuration for runways 13L/31L means a 56 airport arrival rate (14 aircraft per quarter hour) and a 32 airport departure rate (eight aircraft per quarter hour). One of the optimum departure configurations is runway 22R/31L, which allows for a 52 airport departure rate (13 aircraft per quarter hour) and a 35 airport arrival rate (11 per quarter hour).

On a typical Tuesday in August (Aug. 7, to be exact), there were 57 flights scheduled to take off from JFK between 8 a.m. and 9 a.m. – which is more than top airport capacity, according to the FAA's Operational Evolution Plan guidelines covering capacity benchmarks for the airport in perfect weather conditions. That day, Aug. 7, only 38 of those flights took off. As reported by *USA Today*, "the overload cascaded into the next two hours."

- From 9 a.m. to 9:59 a.m. on Sept. 7, 59 flights are scheduled to depart, which is more than the FAA's listed airport capacity of 32-52 per hour.
  - **A minimum of 7 flights will automatically be delayed.**
- In terms of arrivals, 35 flights are scheduled to arrive in the 30-minute block between 5:15 p.m. and 5:44 p.m. Optimum rate only allows for 28 flights to physically touch down in that time frame.
  - **Another 7 flights will be instantly delayed.**
- In a *USA Today* story focusing on JFK's problems on July 9, it was reported, "Officials at JetBlue, the seven-year-old carrier that has become JFK's leading airline, carrying 11.6 million passengers into and out of the airport, have taken the unusual step of endorsing limits on flights because they say that at peak times, airlines are scheduling more flights than JFK can handle."
- The evidence indicates there is NO impact of general aviation or business jets on the congestion and delay problems at JFK. On April 30, 2007, there were 972 air carrier takeoffs and landings, 289 air taxi (regional jets) and SIX (6) GA aircraft using JFK. On an average day in August: 1019 air carrier takeoffs and landings; 317 air taxi (regional jets); 30 GA

#### Newark

At Newark-Liberty International Airport, on the morning of Sept. 5, controllers arrived at work and discovered that they would instantly need to start issuing delay information to specific flights. The reason? **Between 9-10 a.m., there were 57 flights scheduled to depart the airport. But Newark can only handle 45. That meant 12 flights right off the bat were instantly delayed** before the beautiful sunny morning could even progress any further.

A more detailed look:

- In the three hours from 5-8 p.m., when the airport can accept 46 arrivals per hour for a total of 138, there were 160 scheduled arrivals. Those late arrivals put a heavier burden on the "big" 8 p.m. departure hour when 51 departures were scheduled.
- **Adding in all the late arrivals, there are more than 60 planes needing to depart in that hour when the airport can only support 44-45.**

There are many reasons for delays that are never mentioned:

- Every arrival at EWR must eventually cross the departure runway. That's why the 44 rate, BUT, a few times each hour one of those arrivals fails to clear the runway, extending the wait for the next departure.
- Every so often the first plane lined up at the runway is not ready to go, or has a maintenance issue. That plane must be moved aside, extending the wait for the next departure.
- The acceptance of overflow arrivals to the crosswind runway during periods when they are not necessary. Landing 10 overflows, and 35 main runway arrivals, when we could have landed 45 on the main runway only, is unnecessary, and on a North flow it kills 10-15 departure slots.
- The bottom-line is that once the airport is scheduled beyond its capacity, any operational issue will only worsen delays built into the system by airline over scheduling.

### Chicago-O'Hare

At Chicago-O'Hare International Airport, for the optimum arrival configuration, the airport uses three runways: 4R, 10 and 9R. The maximum rate for arrivals is 100 per hour (25 per quarter hour). Maximum departure rate is also 100.

But on Sept. 7, for example, there were many 15-minute periods in which both the scheduled number of both arrivals and departures EXCEEDED 25. For example, from noon to 1 p.m. CDT, in what controllers call the "noon balloon," the airlines scheduled 26 arrivals from noon -12:15 p.m., 28 from 12:16 - 12:30 p.m., 21 from 12:31 - 12:45 p.m. and 29 from 12:46 - 1 p.m. **That's a total of 104, which is four more than the airport could handle if EVERYTHING had gone perfectly.**

Also on Sept. 7, the delays were scheduled to mount. And that's before any aircraft touched the runways. **At 8:15 a.m., there were 41 departures scheduled. But the airport can only handle 25** as previously stated. This means there were 16 flights that automatically were delayed due to the laws of concrete and physics. Those 16 flights spilled into the next half hour, which already had 16 flights scheduled, bringing the total for that 15-minute block to 32, which is SEVEN more than the airport could handle and which spilled into the next half hour, where there were 19 flights scheduled.

- At 10 a.m., there were 39 departures scheduled, meaning that if everything went perfectly, 14 flights were late just by sheer volume delays caused by overscheduling.
- At 1 p.m., there were **50 departures scheduled, with another 28 waiting to depart** at 1:15 p.m. and 26 more at 1:30 p.m. Between 1 - 2 p.m. CDT, **the total departures scheduled were 123. The airport can only handle 100.**

### New York-LaGuardia

At New York-LaGuardia Airport, the optimum configuration for runways 13/22 means a 40-44 airport arrival rate (11-12 per quarter hour) and 40 airport departure rate (10 per quarter hour).

NATCA looked at one day earlier this month and went through the schedule before the traffic started. Under optimum configurations LGA will be able to depart 10 aircraft per hourly quarter, 40 per hour.

- 14:15-14:29L (Local Time) 17 aircraft are proposed for departure, **7 aircraft will be delayed to the next quarter creating a backlog**
- 14:30-14:44L another 10 aircraft are proposed for departure, **7 aircraft remain in the backlog**
- 14:45-14:59L 11 aircraft are proposed for departure, 1 aircraft will be delayed to the next quarter, totaling **8 backlog**
- 15:00-15:14L 13 aircraft are proposed for departure, 3 additional aircraft are added to the backlog, totaling **11 in the backlog**
- 15:15-15:29L 7 aircraft are proposed for departure, 3 aircraft can be departed from the backlog, **8 aircraft remain in the backlog**

- 15:30-15:44L 10 aircraft are proposed for departure, **8 aircraft remain in the backlog**
- 15:45-15:59L 6 aircraft are proposed for departure, 4 aircraft can be departed from the backlog, **4 remain in the backlog**
- 16:00-16:14L 14 aircraft are proposed for departure, 4 aircraft are added to the backlog, **8 are again in the backlog**
- 16:15-16:29L 10 aircraft are proposed for departure, **8 remain in the backlog**
- 16:30-16:44L 8 aircraft are proposed for departure, 2 aircraft can be departed from the backlog, **6 aircraft remain in the backlog**
- 16:45-16:59L 7 aircraft are proposed for departure, 3 aircraft can be departed from the backlog, **3 aircraft remain in the backlog**
- 17:00-17:14L 12 aircraft are proposed for departure, 2 additional aircraft are added to the backlog, totaling **5 aircraft in the backlog**
- 17:15-17:29L 4 aircraft are proposed for departure, all 5 aircraft can be departed from the backlog, **for the first time since the 1415-1429L timeframe, the backlog is empty**

- **The controllers will not recover the time for nearly three hours. Neither do the passengers on the delayed aircraft.**

#### Philadelphia

Finally, at Philadelphia International Airport, the optimum configuration for West operation, runways 27R/26/35, means a 52 airport arrival rate and airport departure rate (13 per quarter hour). For East operation, runways 9L/8/35: 48 airport arrival rate and airport departure rate (12 per quarter hour).

- Under optimum configurations PHL will be able to depart **12-13 aircraft per hourly quarter**, 48-52 per hour. The following breakdown for Sept. 7 demonstrates the cascading effect overscheduling has on delays that effectively deliver scheduled delays:
  - 9:45-9:59L 15 aircraft are proposed for departure, **depending on configuration 2-3 aircraft will be delayed to the next quarter creating a backlog**
  - 10:00-10:14L another 15 aircraft are proposed for departure, again depending on configuration another 2-3 aircraft will be delayed to the next quarter, totaling **4-6 in the backlog**
  - 10:15-10:29L 17 aircraft are proposed for departure, again depending on configuration another 4-5 aircraft will be delayed to the next quarter, totaling **8-11 backlog**
  - 10:30-10:44L 8 aircraft are proposed for departure, depending on configuration 4-5 additional aircraft can be added from the backlog, **4-6 remain in the backlog**

- 10:45-10:59L 9 aircraft are proposed for departure, depending on configuration 3-4 additional aircraft can be added from the backlog, **1-2 remain in the backlog**
- With only 3 aircraft proposed from 11:00-11:14L, the backlog of traffic is absorbed.

Here's the situation in the afternoon:

- 17:45-17:59L 19 aircraft are proposed for departure, depending on configuration **6-7 aircraft will be delayed to the next quarter creating a backlog**
- 18:00-18:14L an additional 18 aircraft are proposed for departure, again depending on configuration another 5-6 aircraft will be delayed to the next quarter, totaling **11-13 in the backlog**
- 18:15-18:29L an additional 17 aircraft are proposed for departure, again depending on configuration another 4-5 aircraft will be delayed to the next quarter, totaling **15-18 backlog**
- 18:30-18:44L 9 aircraft are proposed for departure, depending on configuration 3-4 additional aircraft can be added from the backlog, **11-15 remain in the backlog**
- 18:45-18:59L 11 aircraft are proposed for departure, depending on configuration 1-2 additional aircraft can be added from the backlog, **9-14 remain in the backlog**
- 19:00-19:14L 10 aircraft are proposed for departure, depending on configuration 2-3 additional aircraft can be added from the backlog, **6-12 remain in the backlog**
- 19:15-19:29L 3 aircraft are proposed for departure, depending on configuration 9-10 additional aircraft can be added from the backlog, **3 remain in the backlog**
- With only 3 aircraft again proposed from 19:30-19:44L, the backlog of traffic is absorbed.

- **The controllers will not recover the time for an hour and a half. Neither do the passengers on the delayed aircraft.**

### **FEWER EYES WATCHING MORE PLANES EQUALS GREATER AND LONGER DELAYS**

Understaffing remains the number one issue for this nation's air traffic controller workforce and this year, we have witnessed its effects on the efficiency of the system and our ability to squeeze as much capacity out of the system as possible. For eight years now, NATCA has warned the FAA and the flying public about a coming wave of retirements and the need to plan proactively to

build the next generation of controllers, instead of waiting for veterans to leave to hire their replacements, as the FAA has done, because it takes 2-3 years on average to complete the thorough and arduous training process. History will show that our fears were justified.

In fact, NATCA said the following in our testimony before this committee on May 3, 2001 on the subject of flight delays and the fact that more controllers were needed to avoid a staffing crisis that would worsen any delay problem: "The thousands of controllers hired during the post (1981 PATCO) strike recovery period will reach retirement eligibility in just a short period of time. Retirements will dramatically increase until 2007, when they will peak at 8.4 percent of the workforce. By 2010, cumulative retirements will exceed 50 percent of the workforce. We need to ensure that there are enough qualified and trained air traffic controllers to handle today's increasing workload and to prepare for the coming wave of controller retirements. Mandatory overtime, six-day work weeks and understaffed shifts are what air traffic controllers will be facing if something is not done now to prepare for this crisis. Currently, there are not enough controllers to fill the gap."

All of these things have occurred, including the mandatory overtime, six-day work weeks and understaffed shifts, which permeated the controller work environment this past summer.

The FAA waited until just the past two years to begin hiring our veteran controllers' replacements, three years too late in our view. In fact, in 2004, the year the FAA should have hired more than 1,000 new prospective controllers to be ready to work this summer's record number of planes and passengers, the agency instead hired 13.

As a result, there are now just 11,467 experienced and fully certified air traffic controllers on staff in our 314 facilities as of May 26, 2007, according to FAA figures. That is the lowest number in 11 years, since there were 11,355 on staff at the end of the 1996 fiscal year. It's also 1,113 controllers less than what we had on staff on 9/11, the day our growing and thriving system was ground to a halt by the unspeakable horror of those terrorist attacks. According to an *Associated Press* story from Sept. 2, the FAA is projecting 800 retirements in the 2007 fiscal year that ends this Sunday. This number has been revised upward not once but twice by the FAA since June 2006, with the reason being that more controllers are leaving the workforce due to the work rules and pay cuts imposed on controllers on Sept. 3, 2006. As of Aug. 1 of this year, there were already 697 retirements according to NATCA's own research. We expect that the final tally of retirements will reach or exceed 800, meaning this country is even less able than ever before to handle the growing number of flights and mitigate the resulting delays.

Nowhere is the relationship between traffic, staffing and delays more apparent than at New York's John F. Kennedy International Airport. In 2001, JFK Air Traffic Control Tower handled an average of 1,000 takeoffs and landings per day. This summer, the airport has set numerous records with the tower handling an average of 1,400 takeoffs and landing per day. This is a 40 percent increase. Over the same six-year span, staffing at the tower has fallen from 37 fully certified controllers down to 28, which has resulted in regular occurrences of combining two positions into one due to staffing shortages. This means fewer eyes watching record high numbers of planes. This is first and foremost a safety concern, but is also one of the secondary factors that has made JFK the poster child for flight delays in 2007, behind over scheduling by air carriers.

As the FAA has stated in the media on numerous occasions and also in its own controller workforce plan, its first priority is safety. Thus, the FAA has made it clear that if it does not have enough staffing, it will worsen the delay crisis by putting more space between planes as an added safety margin. On Aug. 17, FAA Spokesman Ian Gregor was quoted in the North County Times

(Calif.) as saying the following: "Safety is always our top priority. In the worst-case scenario, if we did have a bunch of people call in sick (in the case of a tuberculosis outbreak, which is what this story was about), we'd reduce services. We could keep planes further apart. Normally we have them three to five miles apart. We could separate them further and slow down the volume." NATCA believes this is a sad commentary on the predicament the FAA has placed itself in by allowing a staffing crisis to develop and worsen. There should always be enough staffing to overcome its employees' needs to use accrued sick and vacation leave and still be able to keep the system running at full capacity and efficiency. Yet we are now in a situation where the FAA has staffed the system to budget, leaving no flexibility and no room to avoid falling off the razor's edge when staffing prevents them from opening up every available control position in its tower and radar facilities. Nearly every one of the 314 facilities in the country is now below the safe staffing levels agreed to by the FAA and NATCA in 1998.

Understaffing is one of the reasons why delays have worsened at the five airports discussed earlier in this testimony: New York-LaGuardia, New York-JFK, Newark, Philadelphia and Chicago O'Hare. The charts below detail this situation:

*(LEGEND: "Authorized" is agreed-upon staffing levels between NATCA and the FAA before last year's FAA imposed work rules; "Funded" is what the FAA has committed to spending to staff; "CPCs" is certified professional controllers on staff; "Trainees" are developmental controllers; "TMCs" are traffic management coordinators; "Staff" are staff specialists; "Supes" are supervisors; "CPC eligible end of 07" indicates experienced controllers soon to reach retirement eligibility; and "CPC eligible end of 08" indicates experienced controllers who will reach retirement eligibility by the end of next year:*

Facility	Authorized	Funded	CPCs	Trainees	TMCs	Staff	Supes	CPC eligible end of 07	CPC eligible end of 08
LA GUARDIA ATCT	36	27	25	4	4	2	4	3	unk

Facility	Authorized	Funded	CPCs	Trainees	TMCs	Staff	Supes	CPC eligible end of 07	CPC eligible end of 08
JOHN F KENNEDY INTL ATCT	37	32	28	1	3	2	5	6	9

Facility	Authorized	Funded	CPCs	Trainees	TMCs	Staff	Supes	CPC eligible end of 07	CPC eligible end of 08
NEWARK INTL ATCT	40	35	29	1	4	2	5	5	7

Facility	Authorized	Funded	CPCs	Trainees	TMCs	Staff	Supes	CPC eligible end of 07	CPC eligible end of 08
PHILADELPHIA INTL ATCT	109	86	63	21	5	4	12	18	20

Facility	Authorized	Funded	CPCs	Trainees	TMCs	Staff	Supes	CPC eligible end of 07	CPC eligible end of 08
CHICAGO O'HARE INTL ATCT	71	71	47	11	5	3	11	11	17

## **HOW FEWER CONTROLLERS TRANSLATES INTO MORE SPACE BETWEEN PLANES AND, THUS, MORE DELAYS**

There is a clear link between understaffing and delays. Below are some examples of what has occurred:

- Earlier this month, United Airlines Flight 169 from O'Hare to Minneapolis was intentionally held to an altitude of 22,000 feet due to understaffing in the North Area of the FAA's Chicago Air Route Traffic Control Center in Aurora, Ill. UAL operations called to ask why the aircraft was held down and they were told that it was due to staffing.
- Also earlier this month, an episode of understaffing at Kansas City Center meant that the FAA would be unable to hold inbound traffic from O'Hare due to staffing.
- In a San Francisco television news story this month about the unprecedented number of new controller resignations at Oakland Center in Fremont, Calif., it was reported that the trainees at Oakland Center need to be brought up to speed by the FAA sooner rather than later; otherwise, air travelers will be the ones who suffer. The television station's aviation consultant, Ron Wilson, said, "They're (the controllers) not going to control more planes than they can handle, and the only way to do that is (for the FAA) to lessen the flow into these airports which they will do with San Francisco, which is the main Bay Area airport, and it will result in delays."
- According to controllers at Oakland Center, there is a systemic impact of delays to one airport affecting the traffic flows to other airports. There is a rise in the complexity factor for sectors working holding and through traffic simultaneously without adequate staffing to have two controllers at each position. Additionally, inefficient flow times means airlines miss their departure windows. That causes airborne delays and sequencing problems that further impact the flows of traffic.
- According to controllers at Indianapolis Center, delays are being caused routinely by the following factors: Additional in-trail restrictions on internal departures from major airports, additional in-trail restrictions on adjacent centers/facilities, stopping departures during push times when traffic exceeds capacity and choosing less than optimum cruising altitudes and routes to avoid sectors/areas without adequate staffing.



No amount of airspace capacity-enhancing modernization will enable us to overcome the laws of physics and wake turbulence, which dictate the absolute maximum number of aircraft that can use a runway in a given amount of time.

The FAA has tried a large-scale expansion of the airspace just recently and it did nothing to stem the rising tide of delays. In January 2005, Domestic Reduced Vertical Separation Minimum (DRVSM) was instituted nationwide. DRVSM reduced the vertical separation standard between aircraft from 2,000 feet to 1,000 feet for altitudes between 29,000 and 41,000 feet. The point is it effectively doubled the capacity between those altitudes. However, we saw no improvement in delays. Why? Because there is only so much concrete at the airports.

In a press release on Aug. 25, 2005, the FAA promoted DRVSM by saying the following: “A doubling of high-altitude airspace routes between 29,000 feet and 41,000 feet (is) an action that gives pilots and air traffic controllers additional choices by allowing aircraft to fly more direct routes at the most fuel-efficient altitudes. DRVSM saves fuel, which saves the airlines money. In addition, more efficient routes can reduce flight times. DRVSM simultaneously adds airspace routes, increases capacity, and maintains the same high level of safety. DRVSM also makes working today's volume of traffic less complex for air traffic controllers. This reduces the potential for error and provides more options for controllers to help aircraft avoid turbulence and bad weather. In the summer of 2003, the FAA estimated that DRVSM would save airlines and other aircraft operators \$5.3 billion over 10 years, a conservative estimate considering the increase in jet fuel since 2003. The FAA estimated the cost of implementing DRVSM was about \$869 million, primarily to airlines due to re-equipping older aircraft. The first-year savings are estimated to be about \$393 million.”

While controllers may have been able to help aircraft avoid turbulence and bad weather, we are certain that DRVSM did nothing to mitigate flight delays, as evidenced by the record surge the past two years.

Air traffic controllers support modernization and we hope the next FAA administrator will heed calls by the GAO, this Congress and others to work with controllers to build the system of tomorrow. But we must not get carried away. A modernized air traffic control system is a decade away and it will not solve delays, address the ground capacity problem at our busiest airports or keep the airlines from overscheduling these airports. NextGen won't stop bad weather or bring planes closer than they already are while about to land or take off. We could increase the amount of planes we have in the air right now with current technology but we don't have anywhere to put them on the ground. NextGen won't solve that.

Additionally, without a strong, motivated, well-staffed controller workforce, all the high tech equipment in the world counts for little. We can't wait until the next generation or beyond. People are the most important part of the air traffic infrastructure and, because of decisions by this generation of FAA leaders, we don't have enough of them controlling aircraft to support today's traffic demands, let alone tomorrow's.

## **CONCLUSION**

America's air traffic controllers have a front-row seat to the flight delay crisis in the National Airspace System. This summer we witnessed from towers, centers and approach control facilities the highest level of flight delays in recorded history. With passenger levels expected to continue

to increase, we can only anticipate the delays to continue to grow if not addressed quickly and comprehensively.

Despite years of warnings from NATCA and other industry groups, the Agency failed to properly plan for the expected rise in flight levels. In 2001, NATCA cautioned that scheduling at peak hours at busy airports, even in good weather, would contribute to increased delays. Those fears have come to fruition as more passengers have been stuck on runways and stranded at airports this year than any other on record. Instead of addressing the issue of over-scheduling and adding more runways capacity, the Agency has instead hung its hat on a technological solution that, under the best case scenario, is a minimum of 13 years from implementation.

While equipment modernization will aid in mitigating air traffic congestion, it is by no means a cure-all for the aviation delay dilemma. Air traffic controllers support modernization efforts, and we hope the next FAA Administrator will heed calls by the GAO, this Congress and others to work with controllers to build the system of tomorrow. But a modernized air traffic control system is over a decade away and it alone will not solve delays.

In the long-term, ground capacity restrictions at our busiest airports are going to continue to be a leading cause of congestion. New runway capacity must be added at our busiest airports to coincide and compliment the airway capacity expansions that are expected to be provided by NextGen. The amount of airspace in the sky is irrelevant if we have no place to land the planes on the ground.

In the near-term, we must ensure that as we plan for NextGen we do not lose sight of the NowGen. The chronic over-scheduling by airlines at the nation's busiest airports will intensify the runways capacity limitations. Steps can be put into place to ensure that the busiest facilities are not overwhelmed, causing bottlenecks that ripple throughout the system.

Meanwhile, understaffing of air traffic control facilities will continue to exacerbate the inefficiencies of the current system. As the NTSB warned earlier this year, we cannot continue to push our controller workforce beyond its limits. Controller fatigue rates are increasing at frighteningly high levels as air traffic continues to grow at unsustainable rates.

The U.S. National Airspace System is the safest and most efficient in the world, but as evidenced by this hearing, it may soon lose that distinction. Eleven-hundred fewer certified controllers currently watch the skies than on 9/11, when 5,200 aircraft were landed safely in 90 minutes. An additional 70 percent of the current workforce is soon facing retirement. Efforts are going to have to be made to stabilize our controller workforce and allow the segment of the U.S. economy that is increasingly dependent upon air travel to keep moving.

NATCA is taking a proactive role in trying to help the flying public avoid delays to the greatest extent possible. We have launched a public information campaign which includes our website, [www.avoiddelays.com](http://www.avoiddelays.com). We encourage Members of this Committee and the flying public to visit the site and to provide their input.

We appreciate the opportunity to appear before the Committee to provide our input on the aviation congestion crisis. We also welcome opportunities to work with the FAA in a collaborative manner to help fulfill the promises of NextGen and to address the delay problems of the NowGen.