

***Actions to Enhance Capacity and
Reduce Delays and Cancellations***

Department of Transportation

***Report Number: CR-2001-075
Date Issued: August 17, 2001***



Memorandum


U.S. Department of
Transportation

Office of the Secretary
of Transportation

Office of Inspector General

Subject: **ACTION:** Update II: Actions to Enhance
Capacity and Reduce Delays and Cancellations
CR-2001-075

Date: August 17, 2001

From: Alexis M. Stefani 
Assistant Inspector General for Auditing

Reply to
Attn. of: JA-50:x69970

To: Deputy Secretary
Federal Aviation Administrator

On August 2, 2001, at a hearing of the Appropriations Committee, Subcommittee on Transportation and Related Agencies, U.S. House of Representatives, we provided testimony on the status of our actions, and those of the Department of Transportation (DOT) and Federal Aviation Administration (FAA) to address the growing problem of flight delays and cancellations. The commitments to actions were made during the March 15, 2001 hearing on aviation delays. A copy of our August 2, 2001 statement is attached.

DOT and FAA have continued to make progress on many of the remaining action items since the last hearing.¹ The most significant items include the issuance of FAA's Operational Evolution Plan (a set of initiatives and milestones for expanding capacity in the air traffic control system), FAA's Report to Congress on Environmental Review of Airport Improvement Projects, and the airlines' inclusion of the customer service commitment provisions in their contract of carriage—thereby making them legally enforceable. As we emphasized at the last hearing, the key for each of these actions is implementation and execution.

Notwithstanding the progress, there is more to be done. Our statement highlighted several areas that require management attention. An issue of immediate importance is the new runway being built at Detroit, which FAA ranked as the 15th most delayed

¹ At the request of Chairman Rogers, a series of hearings are being held to review ongoing progress in addressing the delay problem. To date, three hearings have been held (March 15, 2001; May 3, 2001; and August 2, 2001), with a fourth one planned for later this year.

airport in 2000.² DOT's Bureau of Transportation Statistics also reported that nearly 29 percent of all flights flown by the 10 major airlines to Detroit were either delayed, canceled, or diverted last year—affecting an estimated 4.6 million passengers.

Although the new runway is scheduled to be completed this year, airport officials have cited several concerns involving FAA's need to ensure navigational aid equipment (i.e., instrument landing system and airport surveillance radar) is in place and operational, and appropriate funding is provided for these navigational aids. According to FAA officials, appropriate funding has been provided. They also noted that the needed equipment is being installed and will be operational by the end of the year. Nevertheless, until this equipment is fully operational, the new runway—even if completed—will be limited to visual flight rule traffic. To ensure Detroit's new runway is fully operational by the end of this year, we recommend that FAA:

1. Complete the installation and testing of needed navigational aid equipment (instrument landing system and airport surveillance radar) for Detroit's new runway by December 2001.

In addition to Detroit's new runway, we identified several other areas requiring DOT's and FAA's attention. With respect to the Department's progress in establishing a uniform system for tracking the causes of flight delays and cancellations, there has been progress in recent weeks. Specifically, on August 16, 2001, the Deputy Secretary in a letter to the Chairman, Subcommittee on Transportation of the House Appropriations Committee, reported that the 10 major air carriers have agreed voluntarily to submit data on the causes of flight delays to DOT starting no later than September 15, 2001. Concurrently, the Department is drafting a notice of proposed rulemaking that would require the major airlines to report this data routinely. DOT expects the final rule to be issued in April 2002. In the meantime, DOT is working to obtain voluntary agreement from the airlines to allow it to release the new delay and cancellation causal data to the public as soon as it is practical (e.g., sufficient confidence in the new reporting system and its data).

Regarding FAA's airspace choke points initiative, Operational Evolution Plan, and capacity benchmarks, we recommend that FAA:

2. Complete development of metrics for assessing the impacts and benefits of choke point initiatives by the end of September 2001; and develop metrics for assessing capacity benefits from initiatives identified in the Operational Evolution Plan, including an approach for reporting benefits, progress to date, and user equipment rates on a periodic basis.

² According to FAA's Capacity Benchmark Report (April 25, 2001), the new runway will increase Detroit's capacity by 25 percent during good weather conditions.

3. Establish procedures for keeping capacity benchmarks for the major airports current.

Finally, with respect to efforts to streamline the environmental assessment process for those projects that would enhance airport capacity, we recommend that FAA:

4. Monitor and evaluate the effectiveness of its six initiatives designed to streamline the environmental impact statement (EIS) process.
5. Finalize FAA Order 1050.1E, Environmental Impact: Policies and Procedures, incorporating policies and procedures for implementing FAA's initiative to streamline the environmental process to use more categorical exclusions, and to shorten and streamline environmental assessments, environmental impact statements, and findings of no significant environmental impact.
6. Strengthen its *Guide to the Best Practices for Environmental Impact Statement Management* by including specific approaches, procedures, and tools that proved successful or unsuccessful in the EIS process for major runway projects. One suggestion would be to provide an example of the EIS process for an actual major runway project identifying what practices in each step of the process worked well, needed improving, or did not work well.

In accordance with DOT Order 8000.1C, we would appreciate receiving your written comments within 20 days. If you concur with our recommendations, please indicate the specific actions taken or planned and the target dates for completion. If you do not concur, please provide your rationale. Furthermore, you may provide alternative courses of action that you believe would resolve the issues.

We appreciate the courtesies and cooperation extended by your staff. If you have any questions or need further information, please contact me at (202) 366-1992 or Mark R. Dayton, Deputy Assistant Inspector General for Competition, Economic, Rail, and Special Programs, at (202) 366-9970.

Attachment

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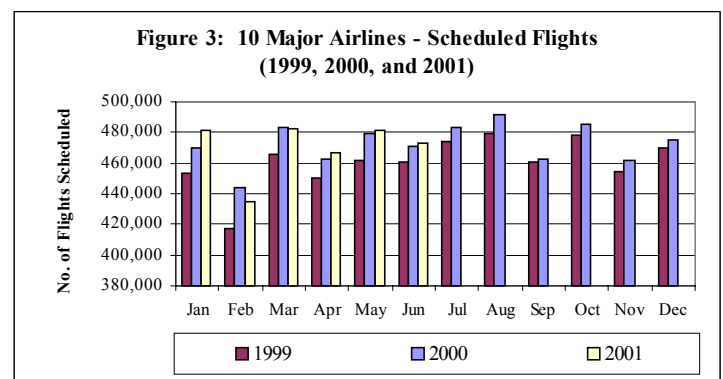
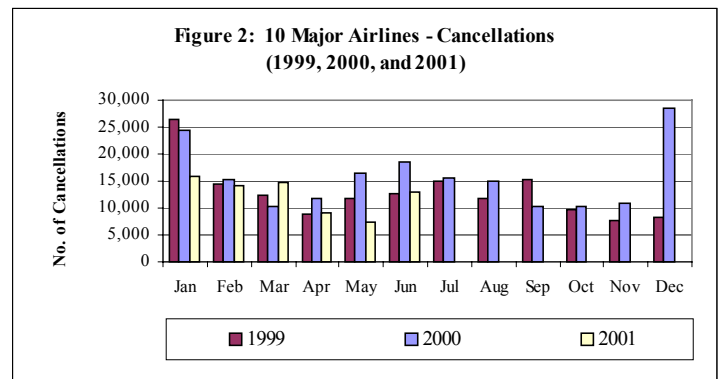
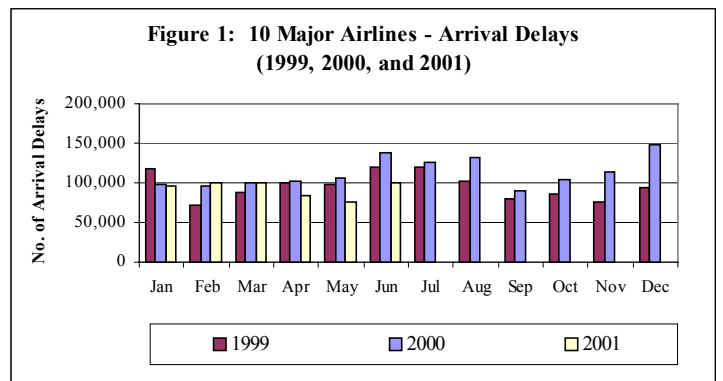
Mr. Chairman and Members of the Committee:

At your March 15, 2001, hearing on aviation delays, you asked each of the panelists to list five actions they would take to help reduce the growing number of flight delays and cancellations. On May 3, 2001, we met to discuss progress in completing these actions. Mr. Chairman, we want to commend you and the Committee for holding this series of hearings. Bringing this group together periodically to review progress in addressing the delay problem has helped focus attention on this important issue and ensured accountability among all parties. Today, we would like to report on delay vital statistics and where things currently stand with respect to the commitments—including progress made and remaining actions.

Vital Statistics Show Noticeable Improvement in 2001

At the May hearing, we presented three charts illustrating how the delays, cancellations, and scheduled flights for the first 3 months of this year compared to those of the prior 2 years. At that time, the 2001 trends were uncertain, with the numbers closely tracking those of 2000. However, today we can report—as illustrated by the three figures to the right—that the current trends point to a significant reduction in both delays and cancellations this summer.

- ✓ During the first 6 months of 2001, 22.6 percent of flights scheduled by the 10 major airlines were delayed, canceled, or diverted, affecting an estimated 63 million passengers. In comparison, 26.4 percent of scheduled flights in the first 6 months of 2000 were similarly impacted, affecting an estimated 78 million passengers.
- ✓ Arrival delays decreased nearly 13 percent (638,727 to 557,138) during the first 6 months of 2001



as compared to the same period in 2000. Flight cancellations dropped at an even faster pace, decreasing nearly 23 percent (96,727 to 74,660).

- ✓ Not only were there fewer delays, but those occurring were shorter in duration. Of those flights arriving late, the average delay was about 49½ minutes during the first half of 2001—a decline of 3 minutes from last year’s average.

- ✓ The number of flights experiencing taxi-out times of 1 hour or more decreased over 20 percent (from 21,753 to 17,368) during the first 6 months of 2001 as compared to the same period in 2000. Flights with taxi-out times of 2, 3, 4, and 5 hours decreased at even higher rates of 48, 57, 51, and 82 percent, respectively.

**Number of Flights with Taxi-Out Times of 1 to 5+ Hours, January-June 2000 and 2001
(BTS Data for 30 Largest Airports)**

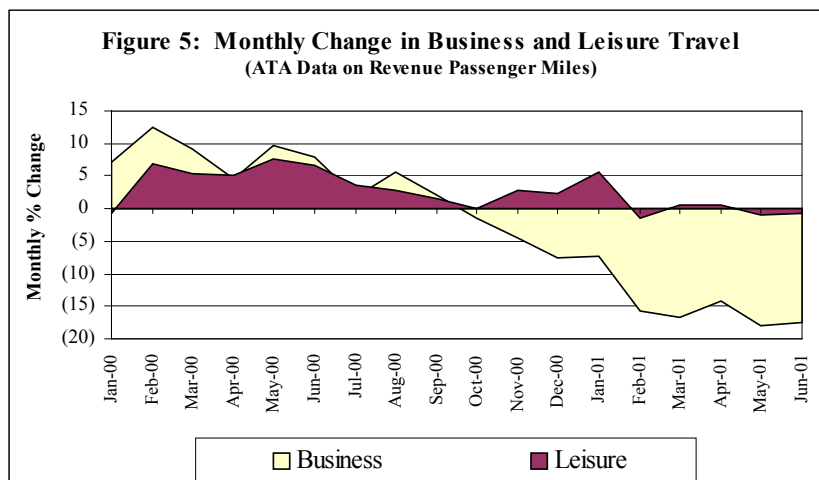
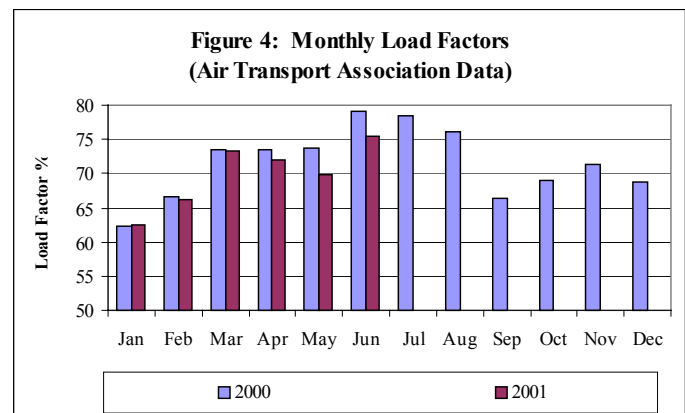
Time Period	2000	2001	% Change
1-2 Hrs.	18,020	15,493	-14%
2-3 Hrs.	2,888	1,513	-48%
3-4 Hrs.	689	296	-57%
4-5 Hrs.	122	60	-51%
5 or > Hrs.	34	6	-82%
Total:	21,753	17,368	-20%

- ✓ Flights chronically delayed (30 minutes or more) and/or canceled decreased 62 percent (from 96,737 to 36,796) between 2000 and 2001.³ Likewise, the number of unique flight numbers associated with these chronically delayed and canceled flights decreased nearly 45 percent (from 6,033 to 3,324).
- ✓ Against this backdrop of decreasing delays and cancellations, consumer complaints also dropped. The Department of Transportation (DOT) Air Travel Consumer Report disclosed that consumer complaints against the major air carriers decreased nearly 20 percent (10,647 to 8,540) between the first 6 months of 2000 and 2001.
- ✓ Scheduling data present a mixed picture, with some data showing little change from the prior year, while other data show more significant increases or decreases. For example:
 - BTS reported less than a 1-percent increase in the number of domestic flights operated by the 10 largest air carriers during the first half of 2001 as compared to the same period in 2000.

³ Under our definition, which differs slightly from Bureau of Transportation Statistics (BTS), chronically delayed and/canceled flights are those regularly scheduled flights (e.g., Chicago to Miami) that arrived at least 30 minutes later than scheduled and/or were canceled at least 40 percent of the time during a single calendar month.

- When breaking out schedule data by airport, we found considerable differences, with LaGuardia (16 percent),⁴ Baltimore (14 percent), and National (13 percent) experiencing the largest increases in operations, and Dulles (-23 percent), Cincinnati (-13 percent), and San Francisco (-5 percent) experiencing the largest decreases.
- By comparison, Official Airline Guide (OAG) data (which also include regional commuter airlines) for June through September 2000 and 2001 identified a 2.2 percent increase in schedule flights, with much of this growth involving smaller aircraft (70 passenger seats or fewer).
- Finally, we found very little evidence to indicate that the 10 largest airlines were dispersing flights from their major hubs to the smaller, less congested airports. For the last 5 years, roughly 67 percent of all scheduled domestic departures occurred at the 30 major airports.

✓ As a sign of the softening economy, we found that the number of vacant seats has increased from last year. The average load factor (number of passenger seats filled) was down during the first half of 2001 for all months except January—as illustrated by Figure 4.⁵



Moreover, the number of business travelers, as measured by revenue passenger miles (RPM), decreased significantly faster than leisure travel during the first half of 2001. Overall, ATA reported that business travel has declined 15 percent this year.

⁴ The increase in LaGuardia occurred primarily as a result of slot exemptions allowed under AIR-21. Although FAA’s lottery program reduced the number of scheduled flights beginning in January 31, 2001, these numbers are still above the pre-AIR 21 period.

⁵ BTS data on load factors for the 10 major airlines show a similar trend in 2001.

Multiple Factors Contributed to Recent Declines in Delays

We noted at the March 15th hearing, the extent to which delays and cancellations increase or decrease in 2001 will depend on several key factors, including weather conditions, labor disputes within the airline industry, the impact of a softening economy on air traffic demand, and how existing capacity is managed at already congested airports. For the most part, factors that were a major cause of delays last year are not as severe so far this year or haven't materialized. For example:

- ✓ The National Weather Service reported a 6 percent reduction in the number of Significant Meteorological Events (SIGMETs)⁶ in the Eastern United States during the first half of 2001 as compared to the same period in 2000. This area includes such delay-prone airports as Atlanta, Boston, Kennedy, LaGuardia, Newark, Philadelphia, and Reagan National.
- ✓ None of the major airlines have experienced significant labor disruptions so far this year. This is in contrast to last year, in which one major airline canceled over 24,000 flights⁷ due to labor problems. The only labor disruption this year has been the strike at Comair, a Delta Air Lines subsidiary that reduced demand on the system, particularly at the Cincinnati and Orlando airports.
- ✓ The Federal Aviation Administration (FAA) and airline actions over the last year to improve communication, air traffic management, and airspace/airport usage appear to be bearing fruit. Having gone through the worst year on record with respect to delays and cancellations, FAA and the airlines now appear to be working together to avoid some of last year's problems through such efforts as Spring/Summer 2001 and Collaborative Decision Making. The slot lottery at LaGuardia has also played a role in helping ease delays, both in the New York City area as well as nationally.
- ✓ Finally, voluntary actions by several of the major airlines with respect to adjusting their flight schedules and using larger aircraft have helped reduce congestion, and, in turn, delays at several of the major airports. (See pages 9 through 11 for figures illustrating changes in the number of arrival delays, cancellations, and scheduled flights for Atlanta, Dallas/Ft. Worth, and Newark airports over the last 3 years.)

⁶ SIGMETs are reports of any weather patterns that may be deemed hazardous to all aircraft, such as thunderstorms (convective) and snow or ice storms (non-convective). Because of insufficient regional data on non-convective events, our analysis focused only on SIGMETs involving convective weather.

⁷ This figure represented approximately 13 percent of all cancellations reported by the 10 major airlines in 2000.

While Progress Has Been Made on Many of DOT's and FAA's Commitments, Much Work Remains

Although the current delay statistics and trends look favorable, we must not be lured into a false sense of security. Any of the previously noted factors could still play a role this year or next in causing a return to a higher number of delays and cancellations, and higher levels of consumer dissatisfaction with the airlines. With this in mind, we would now like to turn to the commitments and what progress has occurred.

DOT and FAA have continued to make progress on many of the remaining action items since the May hearing. The most significant items include the issuance of FAA's Operational Evolution Plan (a set of initiatives and milestones for expanding capacity in the air traffic control system), FAA's Report to Congress on Environmental Review of Airport Improvement Projects, and the airlines' inclusion of the customer service commitment provisions in their contract of carriage—thereby making them legally enforceable. As we emphasized at the last hearing--the key for each of these actions is implementation and execution. By contrast, there are six items for which we feel progress has been either insufficient or action is needed sooner, rather than later.

- (1) DOT still lacks a uniform system for tracking the causes of flight delays and cancellations—as first required by AIR-21.⁸ While some progress has been made, we had hoped a system would be in place by this summer. We understand that DOT expects additional airlines to participate in the program voluntarily before the end of 2001 and hopes to complete an expedited rulemaking (i.e., mandatory reporting of causal data by all airlines) by September 2002.
- (2) Airlines need to notify passengers at the time of booking, without being asked, the prior month's on-time performance for those flights that have been consistently delayed (i.e., 30 minutes or greater) and/or canceled 40 percent or more of the time. None of the airlines, to date, has chosen to adopt this proposal, despite the fact that we have recommended this several times. Although the number of chronically delayed and canceled flights has dropped 62 percent so far this year, nearly 37,000 flights were still consistently delayed. Nevertheless, without Congressional or DOT action (i.e., legislation or regulation) it is unlikely that the airlines will begin reporting such information to passengers.
- (3) Airlines also need to clarify to customers their rights when put in an overnight situation due to delays, cancellations, or diversions. Although the

⁸ The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181, April 5, 2000).

airlines announced they had established a task force to address this issue, consumers have seen no change, and the actions to be taken by the task force have not yet been specified nor have timelines been established.

- (4) Although FAA has made progress with respect to the 7 major airspace choke points, the agency needs to set firm milestones and budget parameters for implementing several of the remaining action items, which include establishing an interface between U.S. and Canadian facilities for exchanging radar data. This is important to take full advantage of re-routing traffic through Canadian airspace to lessen congestion in the Great Lakes Corridor. These implementation dates should be incorporated into the performance agreements of accountable FAA managers.
- (5) FAA needs to finalize budget and plans for Free Flight Phase 2, and address how Free Flight Phases 1 and 2 will be integrated and linked with satellite-based systems, which can provide precision landing capability and improve a pilot's situational awareness.⁹ Taken together, these initiatives represent multi-billion dollar investments.
- (6) Airport runway projects are in various stages of progress. Responses from the various airport authorities (see pages 7 and 8) provided a wide range of information as to challenges to meeting estimated completion dates. FAA has initiated an effort, known as the Runway Template Action Plan, to track runway milestones for the 14 planned new runways. This plan is intended to assign responsibility and establish a climate of accountability for FAA, airports, and airlines. Detroit, which FAA ranked as the 15th most delayed airport in 2000, is scheduled to complete a new runway this year. Concerns expressed by airport officials include FAA's need to ensure navigational aid equipment is in place and operational, as well as, appropriate funding is provided for these navigational aids. Nevertheless, FAA and airport officials expect the runway to be completed by November or December 2001. FAA needs to carefully track all runway projects to monitor timeframes and estimated costs because of their vital interest and nature.

In addition to monitoring actions by FAA and DOT, we committed to three additional actions. Since the last hearing, we have developed a baseline of the 14 currently proposed runway projects, examined the voluntary actions some airlines have taken to reduce delays, and developed a list of demand management options that we are reviewing. Runway construction and demand management actions, however, will not provide relief this summer. Each of these commitments will be fully examined in longer-term analysis and review, and will result in two reports on airline delays that we will issue later this year.

⁹ New satellite-based systems include the Local Area Augmentation System (LAAS) and Automatic Dependent Surveillance-Broadcast (ADS-B).

**AIRPORT RESPONSES TO OIG SURVEY OF NEW RUNWAY PROJECTS
(Ordered by Estimated Completion Date)**

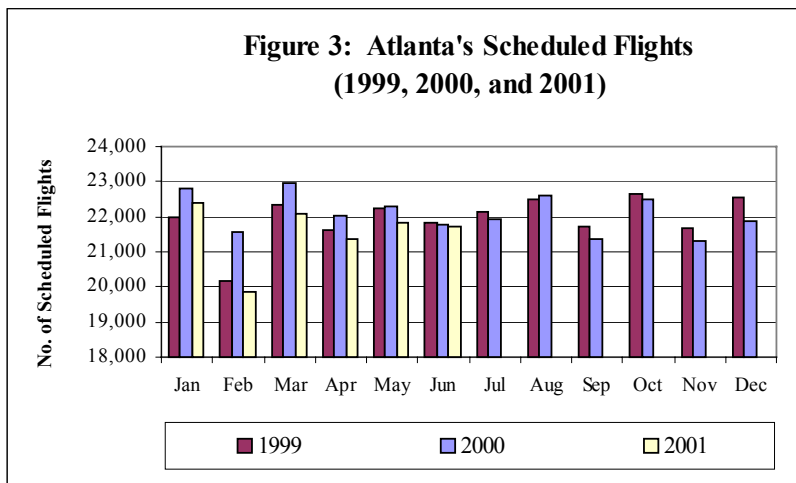
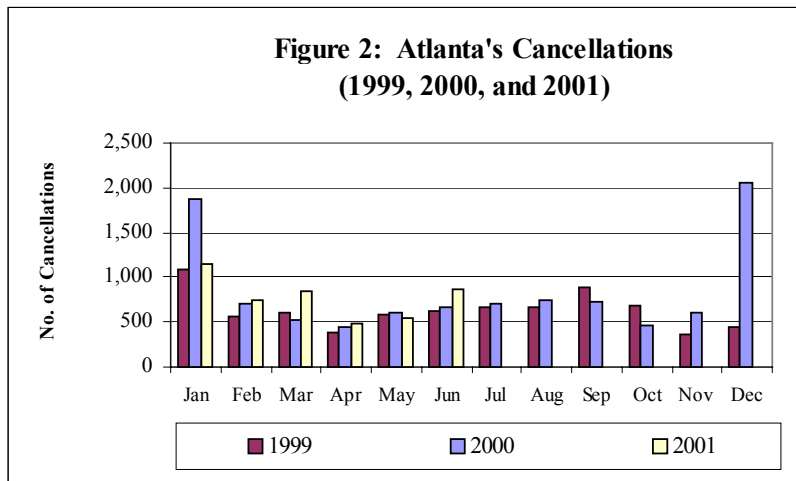
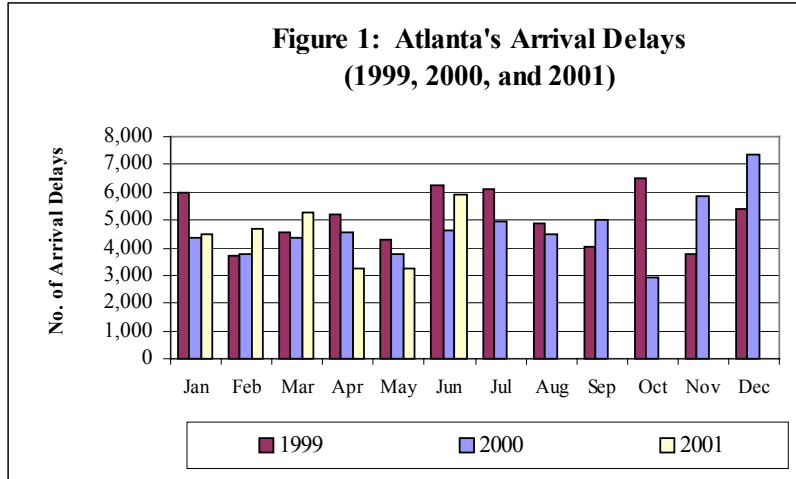
Airport	Estimated Completion Date	Phase	Cost Estimate (Millions)¹⁰	Challenges to Timely Completion (as provided by the airport)
Detroit	2001	Construction	\$224	<ul style="list-style-type: none"> ✓ Timely delivery of NAVAIDs. ✓ Removal, relocation, and installation of new electrical and communication utilities. ✓ Grading requirements not identified in the contract schedule. ✓ Conduct of runway instrumentation tune-up and flight check.
Miami	2003	Construction	\$213	<ul style="list-style-type: none"> ✓ None cited.
Orlando	2003	Construction	\$203	<ul style="list-style-type: none"> ✓ None cited.
Houston	2003	Construction	\$257	<ul style="list-style-type: none"> ✓ None cited.
Denver	2003	Construction	\$166	<ul style="list-style-type: none"> ✓ Obtaining and installing the paving and lighting project components is contingent upon FAA funding approval. ✓ FAA follow through on commitments to fund, design, and install NAVAIDs.
Minneapolis	2003	Construction	\$528	<ul style="list-style-type: none"> ✓ Cooperation among Federal and state permitting and approval agencies. ✓ Inclement weather delays. ✓ Contractor ability to carry large bonds and reliability in completing existing contracts on time due to accidents, labor actions, work force availability, and material shortages.
Charlotte	2003	Construction	\$161	<ul style="list-style-type: none"> ✓ Obtaining sufficient Federal funding to retire debt from runway land acquisition.
Atlanta	2005	Environmental	\$1,100	<ul style="list-style-type: none"> ✓ Obtaining fill material for both runways. ✓ FAA issuance of the 9,000 foot runway Record of Decision. ✓ Corps of Engineers 404 (wetlands) permit modification. ✓ Local authorities relocation of existing road, utilities, and NAVAIDs. ✓ FAA funding and installation of NAVAIDs. ✓ FHWA and Georgia DOT design of runway support structures for the runway portion that extends over I-285.
Boston	2005	Environmental	\$76	<ul style="list-style-type: none"> ✓ Public and political opposition, including lawsuits from opposing groups and organizations. ✓ Lengthy EIS process.
Cincinnati	2005	Environmental	\$233	<ul style="list-style-type: none"> ✓ Construction beginning by March 2002. ✓ Timely land acquisition.
St. Louis	2005/06	Construction	\$1,109	<ul style="list-style-type: none"> ✓ None cited.

¹⁰ Estimates were provided by airport authorities.

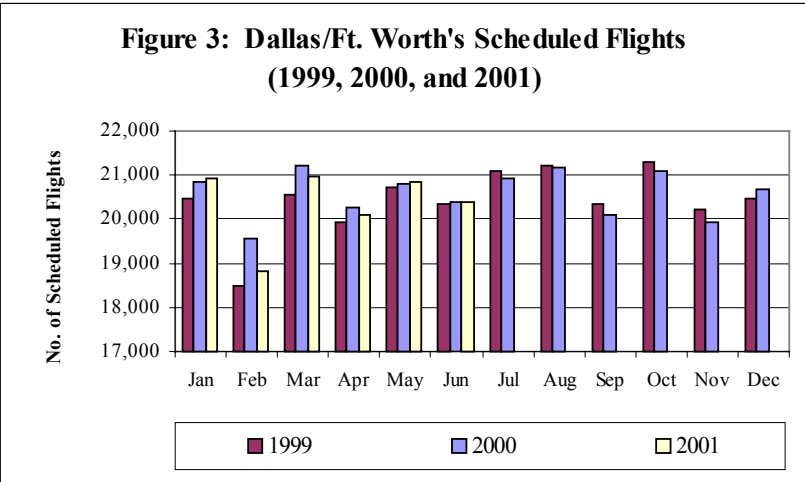
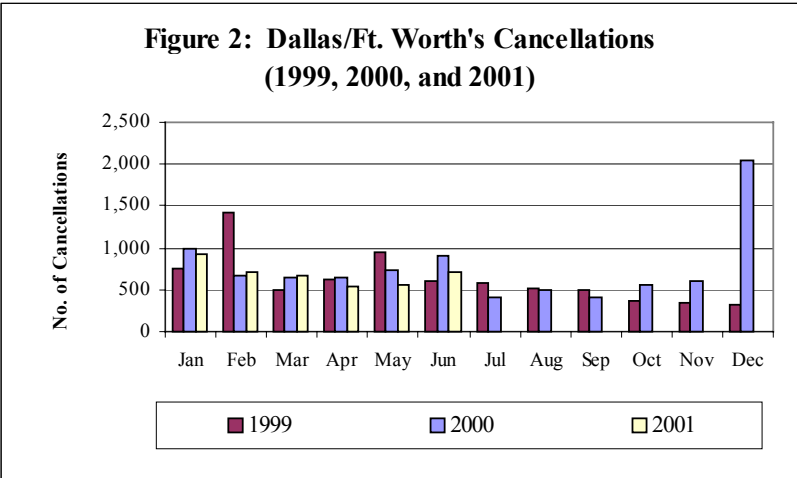
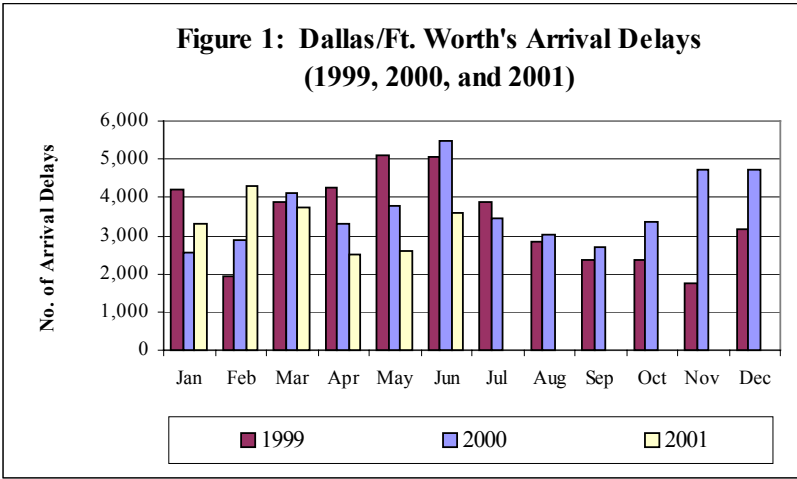
**Airport Responses to OIG Survey of New Runway Projects
(Ordered by Estimated Completion Date)**

Airport	Estimated Completion Date	Phase	Cost Estimate (Millions)	Challenges to Timely Completion (as provided by the airport)
Seattle	2006	Environmental	\$773	<ul style="list-style-type: none"> ✓ Issuance of the Washington State Department of Ecology's 401 Water Quality Certificate and the U.S. Army Corps of Engineers 404 (wetlands) permit. ✓ Pending citizen lawsuits. ✓ Competing demands on FAA funding, equipment, and personnel.
Dulles	2007	Planning	\$252	✓ None cited.
Dallas/ Fort Worth	2007/2008	Planning	\$361	✓ Timely completion of the EIS and adoption of a rigorous project schedule.
		TOTAL	\$5,656	

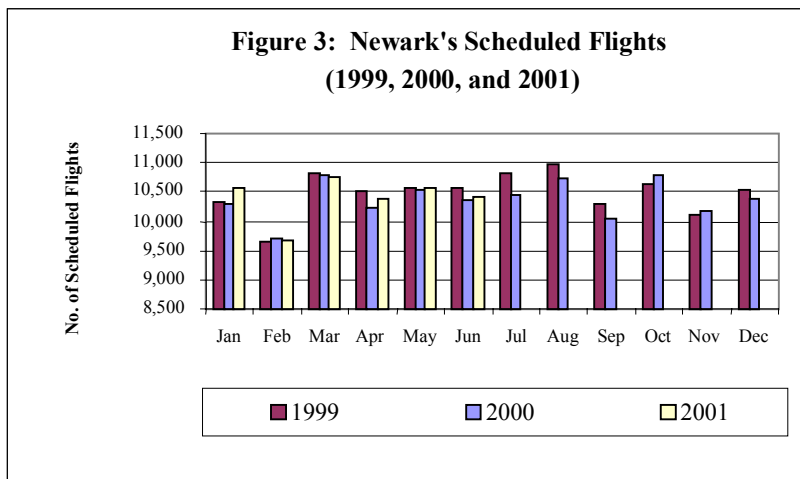
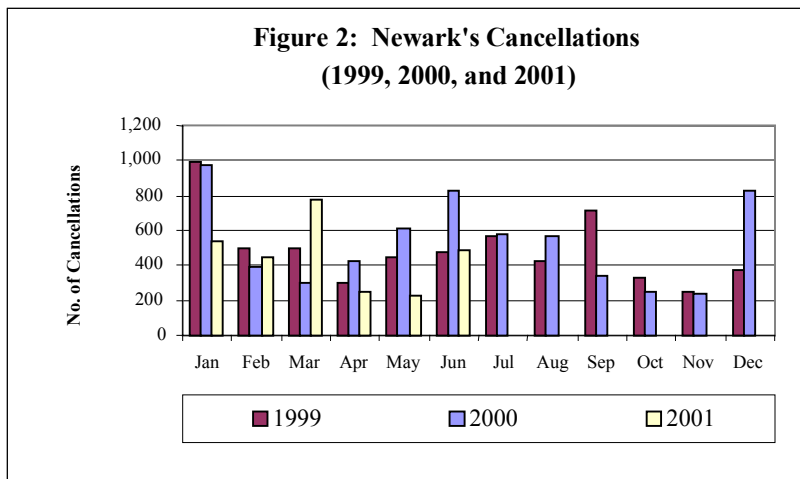
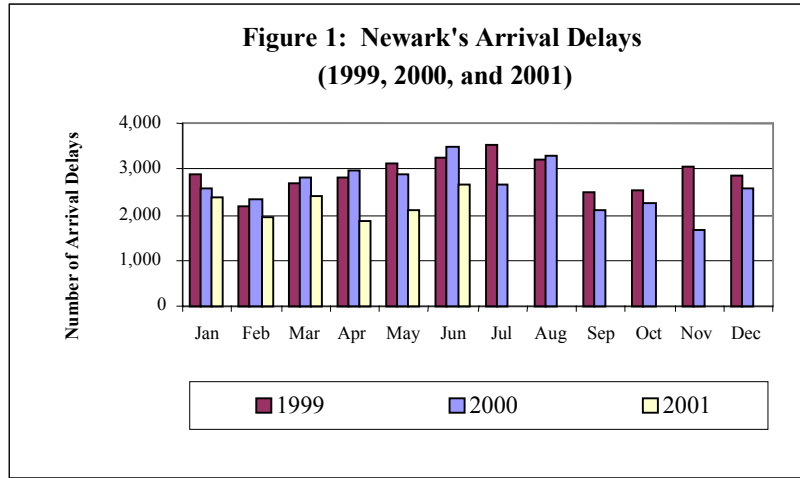
**ATLANTA: NUMBER OF ARRIVAL DELAYS, CANCELLATIONS,
AND SCHEDULED FLIGHTS**
(BTS Data from 10 Major Airlines)



**DALLAS/FT. WORTH: NUMBER OF ARRIVAL DELAYS, CANCELLATIONS,
AND SCHEDULED FLIGHTS**
(BTS Data from 10 Major Airlines)



**NEWARK: NUMBER OF ARRIVAL DELAYS, CANCELLATIONS,
AND SCHEDULED FLIGHTS**
(BTS Data from 10 Major Airlines)



The following includes a brief summary of each commitment and progress that has occurred.

1. Monitor DOT's progress in establishing a uniform system for tracking the causes of flight delays and cancellations.

Done:

- On March 28, 2001, Administrator Garvey announced before this Committee that FAA would adopt the Department's current definition of a delayed flight—as one arriving 15 minutes or more after the scheduled arrival time.
- All four air carriers that volunteered to participate in the delay reporting pilot program have submitted causal data for flight delays and cancellations occurring in February 2001.
- Prior reporting discrepancies have been resolved and all four air carriers have agreed to submit additional causal data (March through June 2001) to permit further system testing and refinement.
- A meeting has been set to extend the causal reporting methodology to the other airlines in DOT's delay reporting system.

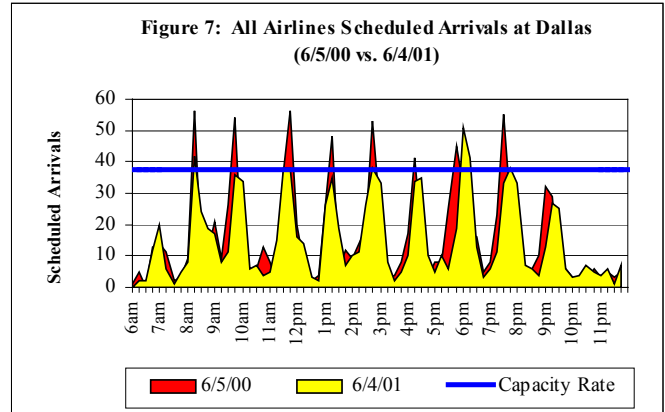
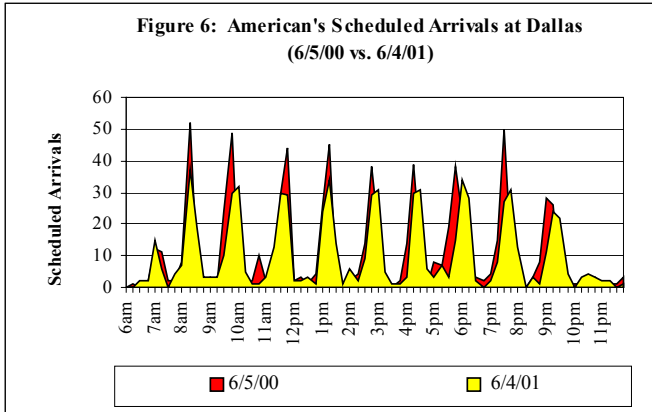
Actions Needed:

- Begin voluntary causal reporting by the airlines (without release to the public) by October 2001.
- Begin an expedited rulemaking immediately to require mandatory reporting of the causal data by no later than September 2002.
- Begin releasing the voluntarily reported causal data to the public beginning January 2002.
- Airlines should notify air travelers before they book their flights if they are purchasing a ticket on a chronically delayed or cancelled flight, that is, one that has been cancelled and/or delayed at least 40 percent of the time in the prior month.

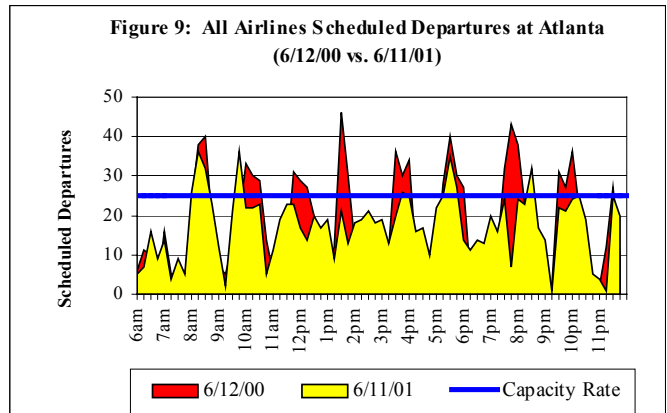
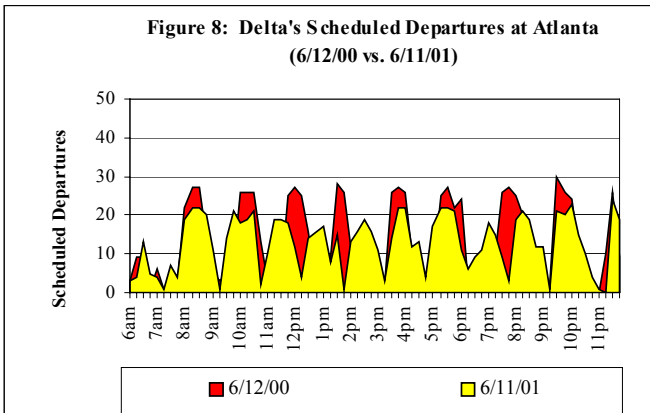
2. Track airline voluntary actions, such as dispersal of flights from hubs to smaller airports, to help reduce flight congestion and delays.**Done:**

- BTS performed an analysis of the OAG flight schedules for all carriers (majors, nationals, regionals, commuters, and small air carriers) for the period April through June 2000 and 2001, to determine what changes in air carrier schedules have occurred and how they may have contributed to the reduction in flight delays so far this year.

- American reduced the size of peak operations periods at Dallas/Fort Worth by slowing its arrival and departure rates and providing more connecting time between flights. (See Figures 6 and 7.)



- Delta reduced the size of peak operations periods at Atlanta by increasing the number of departure and arrival banks from 10 to 12. Banks are the clustering of arriving and departing flights into narrow periods of time (e.g., scheduling 15 departures from 7:00 a.m. to 7:15 a.m.). This was done without reducing flight opportunities to its customers because the total number of flights per day has remained the same. (See Figures 8 and 9.)



- Continental and United have increased the size of aircraft operated at selected delayed airports. For example, our comparison of Official Airline Guide (OAG) data for the months of June 2000 and June 2001 found that United had decreased the number of smaller aircraft (125 seats or less) at San Francisco by 42 percent, while increasing the number of mid-sized aircraft (126 to 150 seats) by 15 percent.

Actions Needed:

- Rescheduling at hub airports by airlines that have not done so on an independent and voluntary basis.
- DOT continue efforts to compare 2001 and 2000 flight schedules of airlines at their hubs to gauge the effects of the airlines' voluntary actions on flight delays and cancellations.
- Beyond the airlines' scheduling practices, another factor that will have a growing impact on airport and airspace usage in the years ahead is the rapid growth in the number of smaller jet aircraft. As the following table illustrates, scheduled flights involving aircraft with 70 passenger seats or fewer grew at a much faster pace than their larger counterparts.

While such aircraft provide valued service, especially to smaller communities, unrestrained use at the

**10 Major Airlines and Regional Affiliates
No. of Scheduled Flights at the 30 Largest Airports by
Aircraft Size (OAG/BTS Data)**

Aircraft Size	6/2000	6/2001	% Change
70 Seats or fewer	6,588	9,543	44.9%
71 to 125 Seats	144,148	162,162	12.5%
126 to 250 Seats	496,318	496,474	<1%
250 Seats or greater	25,498	21,699	-14.9%
Total	672,552	689,878	2.6%

larger hub airports creates a number of issues that both the Department and FAA will need to address (e.g., how to balance the needs of communities with little or no air service with growing congestion at the larger airports).

3. Monitor runway construction at the major airports, including costs and schedule status, to ensure additional capacity is produced within established milestones.

Done:

- OIG developed an initial baseline of the 14, currently proposed, runway projects, including estimated completion dates, current status, estimated costs, and major challenges to completing runways on time. (See pages 7 and 8.)
- OIG has received responses from all 14 airport authorities concerning runway construction projects. The responses are being coordinated with FAA Headquarters and regional officials to determine their reasonableness.

Actions Needed:

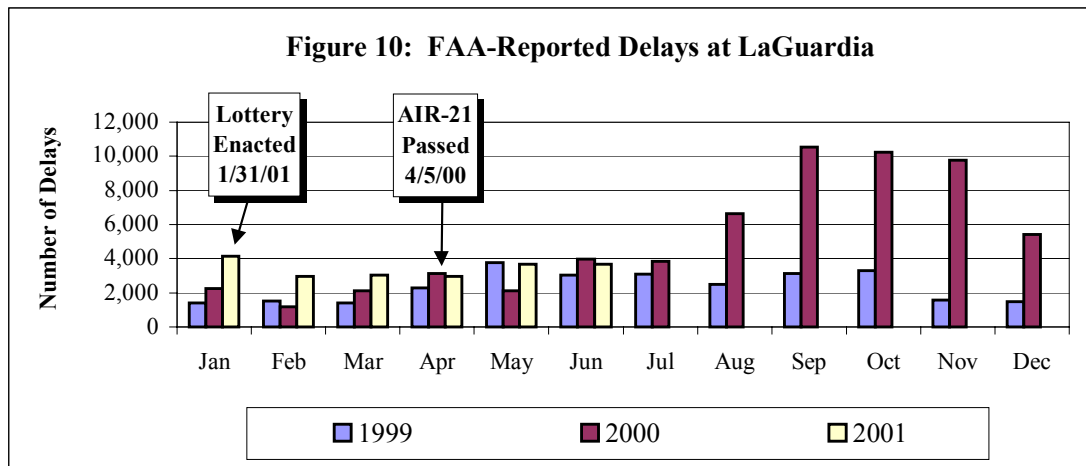
- OIG finalize runway baseline and publish results by this fall.
- Continuous tracking of this baseline by FAA and prompt action to keep runway projects on schedule as risks to meeting planned completion dates are identified.

4. Analyze administrative and market-based options as short-term measures for managing excess demand at congested airports.

Done:

- OIG developed a list of demand management options that are currently being examined as part of an ongoing study. These options range from administrative actions, such as slot lotteries and anti-trust immunity for scheduling, to market-based solutions, such as congestion pricing and flat landing fees.
- FAA issued a “Notice of Alternative Policy Options for Managing Capacity at LaGuardia Airport and Proposed Extension of the Lottery Allocation” on July 12, 2001. The Notice, published in the *Federal Register*, discusses both market-based and administrative options and proposes the temporary extension of the current lottery allocation to October 26, 2002.

As Figure 10 illustrates, with passage of AIR-21 and the resulting increase in scheduled flight operations at LaGuardia, delays rose dramatically, especially from August to December 2000. With enactment of the lottery program on January 31, 2001, delays—although generally higher than monthly totals in 1999 and 2000—are more in line with those reported by FAA prior to AIR-21.



Actions Needed:

- OIG complete study and publish findings this fall regarding the pros and cons of each demand management option including who benefits and who bears the cost of each option.
- FAA and the Port Authority of New York and New Jersey reach a decision on whether to extend slot lottery at LaGuardia (as proposed by the current Notice) or select some other alternative before the current program expires on September 15, 2001.

5. Monitor FAA’s progress towards meeting its six commitments.

Commitment 1: Complete action items pertaining to seven major airspace choke points and measure results.

Done:

- FAA has completed 14 of the 21 action items designed to reduce the effect on air traffic of the 7 major airspace choke points, all of which are east of

the Mississippi River. As part of this effort, eight new air traffic control sectors have been established thus far. FAA expects to establish a total of 19 new sectors for the 7 major choke points by June 2002.

- FAA has entered into a memorandum of understanding with the controllers' union regarding airspace redesign. The agreement outlines the general ground rules for working through airspace redesign issues and safeguards controller pay from changes if the airspace redesign effort lowers a facility's traffic level.

Actions Needed:

- Complete the development of metrics for assessing the impacts and benefits of choke point initiatives by the end of September 2001.
- Complete the following items by the planned date of December 31, 2001, and incorporate the completion dates in the performance standards of the accountable FAA managers.
 1. Flip flop the "Yardley" and "Robbinsville" sectors to increase the flow rate for traffic that affects the New York Center.
 2. Smooth traffic flows in the Great Lakes Corridor.
 3. Reduce the window for the expected Departure Clearance Time during Ground Delay Programs with the goal to minimize the use of multiple restrictions on the same flight.

- Complete these remaining action items by the planned date of June 30, 2002, and incorporate the completion dates in the performance standards of the accountable FAA managers.
 1. Establish a Coordinator position in the “Liberty West” sector to help coordinate traffic flows in the New York area. An implementation date has not yet been established.
 2. Create an automation interface for radar data between the Cleveland and Toronto Centers. An implementation date has not yet been established.
 3. Design and establish 19 sectors at various locations. To date, eight sectors have been established.
 4. Develop new procedures for the Chicago tower, TRACON, and Center that provide alternate flight paths around bad weather and congestion without controller guidance. The first phase of this effort is complete, but implementation dates for the next two phases have not been established.

Commitment 2: Use capacity benchmarks to identify areas for improvement (i.e., action plan) at the 10 most delayed airports.

Done:

- FAA completed capacity benchmarks for 31 major airports.

- FAA developed action plans for the eight most delayed airports, which accounted for 75 percent of FAA-tracked delays in 2000.¹¹
- FAA issued a notice on July 12, 2001 requesting comments on various administrative and market-based options for managing capacity at LaGuardia.

Actions Needed:

- FAA, the airlines, and the airports need to ensure that milestones are established for the vital capacity enhancement projects at the eight most delayed airports and that those milestones are met.
- These eight airports, with the exception of Atlanta, project insufficient capacity growth to keep up with the projected growth in demand over the next 10 years; therefore, delays are apt to grow at these airports rather than decrease. FAA, the airlines, and the airports need to devise additional capacity-enhancing projects for these airports to avoid the need to employ demand management techniques.
- DOT and FAA need to determine what administrative and/or market-based options are appropriate and economically efficient for managing excess demand at those airports experiencing high levels of congestion and delays

¹¹ In ranking the 31 airports by the percent of Operations Network (OPSNET) delays per 1,000 flight operations in 2000, FAA selected 3 percent as the cut off point for determining those airports for which action plans would be developed. These included LaGuardia (15.6%), Newark (8.1%), Chicago (6.3%), San Francisco (5.7%), Boston (4.8%), Philadelphia (4.4%), Kennedy (3.9%), and Atlanta (3.1%). Some of the airports not making the cut included: Houston (2.8%), Dallas/Ft. Worth (2.4%), Phoenix (2.2%) and Los Angeles (2.2%).

and for which capacity-enhancing projects are unlikely to satisfy current or projected demand (e.g., LaGuardia).

- FAA establish procedures for keeping capacity benchmarks for the major airports current.

Commitment 3: Ensure air traffic control modernization efforts under Free Flight Phase 1 (FFP1) and Free Flight Phase 2 (FFP2) remain on schedule.

Done:

- FAA continues to make progress in implementing elements of FFP1. New information-exchange systems (Collaborative Decision Making and Surface Movement Advisor) are largely in place, and new automated controller tools—User Request Evaluation Tool and Center-TRACON Automation System—are in use at a small number of air traffic control facilities.
- Preliminary results indicate that FFP1 will provide modest improvements in capacity, though the benefits will vary by location.

Actions Needed:

- FAA has significant work remaining to complete the development and deployment of the new automated controller tools, which account for over 80 percent of the FFP1 investment.

- FAA needs to finalize and publish the FFP2 plan, which includes conducting human factors assessments, developing a risk mitigation strategy, and finalizing costs for Controller-Pilot Data Link Communications.

Commitment 4: Reach agreement with airlines and airports on near-term, mid-term, and long-term actions for increasing capacity in the National Airspace System (NAS), as outlined in the National Operational Evolution Plan.

Done:

- FAA released its Operational Evolution Plan on June 5, 2001, which outlines the actions—new runways, new technologies, airspace redesign, and new procedures—needed over the next 10 years to enhance capacity. In addition, FAA named the former Director of FFP1 to lead the implementation of the plan.

Actions Needed:

- Implement and execute the plan and hold FAA managers accountable for meeting the plan's milestones in their performance standards.
- Develop a clear strategy for how the wide range of FAA programs (such as FFP1, FFP2, and satellite navigation efforts) will be linked together and managed.

- Develop metrics for assessing capacity benefits and an approach for reporting benefits, progress to date, and user equipage rates on a periodic basis.
- Conduct an assessment of programmatic interdependencies to identify critical path issues that could impede the plan's implementation.

Commitment 5: Streamline Federal, state, and local procedures for approving enhancements to airport capacity.

Done:

- On May 18, 2001, FAA issued its Report to Congress on Environmental Review of Airport Improvement Projects. As required by AIR-21, FAA conducted a study of Federal environmental requirements related to the planning and approving of airport improvement projects. The report included six initiatives approved by the FAA Administrator “to provide real progress towards reducing environmental review timelines.”
- FAA issued its Guide to the Best Practices for Environmental Impact Statement (EIS) Management in July 2001, which included management techniques, approaches, and actions that can make the environmental process more streamlined and efficient.
- FAA continues to implement other initiatives to improve the timeliness of environmental reviews. These initiatives include: (1) establishing EIS

teams for each new EIS for a major runway project; (2) dedicating more FAA staff to environmental reviews; (3) maximizing consultant resources to perform EIS tasks; (4) increasing the number of projects that are excluded from detailed environmental review; and (5) improving Federal and state interagency coordination during environmental reviews.

Actions Needed:

- In its Report to Congress, FAA identified 10 sequential steps in the EIS process with only 2 of those steps having benchmarks (expressed in days) as required by law. For the remaining 8 steps, FAA should establish benchmarks (also expressed in days) for when each step could realistically be completed.
- Monitor and evaluate the effectiveness of the six initiatives designed to streamline the EIS process. In doing so, FAA should identify objectives, goals, and outcomes for measuring the effectiveness of each of the six initiatives currently being implemented.
- Finalize FAA Order 1050.1E, Environmental Impact: Policies and Procedures incorporating policies and procedures for implementing FAA's initiative to streamline the environmental process to use more categorical exclusions,¹² and to shorten and streamline environmental assessments,

¹² Categorical exclusions apply to actions that do not individually or cumulatively have significant effects on the environment and for which neither environmental assessments nor environmental impact statements are required.

environmental impact statements, and findings of no significant environmental impact.

- FAA needs to strengthen its Guide to the Best Practices for Environmental Impact Statement Management by including specific management techniques, approaches, procedures, and tools that proved successful or unsuccessful in the EIS process for major runway projects. One suggestion would be to provide an example of the EIS process for an actual major runway project identifying what practices in each step of the process worked well, needed improving, or did not work well.

Commitment 6: Develop standard DOT definition for tracking and reporting flight delays.

Done:

- DOT and FAA have agreed upon a standard definition for a flight delay.
- Starting in May 2001, BTS began publishing on its web site changes in scheduled times for flights between the largest airports.

Actions Needed:

- DOT and FAA set a deadline for completing the work on a set of measures to gauge and track the inefficiencies of the air traffic system already built into airline schedules.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions you might have.