

**REVIEW OF DECEMBER 2004 HOLIDAY
AIR TRAVEL DISRUPTIONS**

Office of the Secretary of Transportation

Report Number: SC-2005-051

Date Issued: February 28, 2005



Memorandum

**U.S. Department of
Transportation**

Office of the Secretary
of Transportation
Office of Inspector General

Subject: **INFORMATION:** Review of December 2004
Holiday Air Travel Disruptions
SC-2005-051

Date: February 28, 2005

From: Kenneth M. Mead
Inspector General

Reply to
Attn. of: JA-10

To: Secretary of Transportation

With more than 162,000 airline departures scheduled over the December 22 to 28, 2004 holiday travel period,¹ the 2004 holiday travel period was projected to be the busiest in 5 years, exceeding the 2000 holiday travel period traffic levels by 1.5 percent—a period when air travel was at a peak. Systemwide delays and cancellations also reached a peak during the December 2004 holiday travel period, with nearly half of all flights either delayed or canceled during this period.

While these delays and cancellations occurred throughout the system and by many airlines, there were two operations that were particularly significant—Comair and US Airways. Comair, based in Cincinnati, either canceled or delayed 89 percent of its scheduled 2004 holiday travel period departures. Comair is a wholly owned subsidiary of Delta Air Lines, although it operates independently of Delta with separate labor agreements, scheduling systems, and maintenance operations. Reservations for Comair are handled by Delta, while customer relations are split between Comair and Delta.

US Airways is the nation's sixth largest airline in terms of passengers carried and is undergoing its second Chapter 11 bankruptcy reorganization since August 2002. US Airways' operations are primarily concentrated on the East Coast, with hubs in Philadelphia and Charlotte. Systemwide, 53.8 percent of US Airways flights were delayed and another 5.2 percent were canceled during the December 2004 holiday travel period. Compounding passenger inconvenience were tens of thousands of misdirected bags.

¹ At the 55 airports tracked in the FAA's Aviation System Performance Metrics database in the 7-day period between December 22, 2004, and December 28, 2004; this is hereafter defined as the "December holiday travel period."

In a memorandum dated December 27, 2004, you requested that the Office of Inspector General (OIG) join with the Department's Office of Aviation and International Affairs and Office of General Counsel to investigate travel disruptions experienced over the December holiday travel period by Comair and US Airways. Specifically, you requested that we perform an expedited review to determine: (1) what travel disruptions occurred and why, (2) whether the carriers had planned adequately before the holiday travel period, (3) what the carriers told travelers about the disruptions, and (4) whether the carriers responded to consumer needs appropriately during the disruptions.

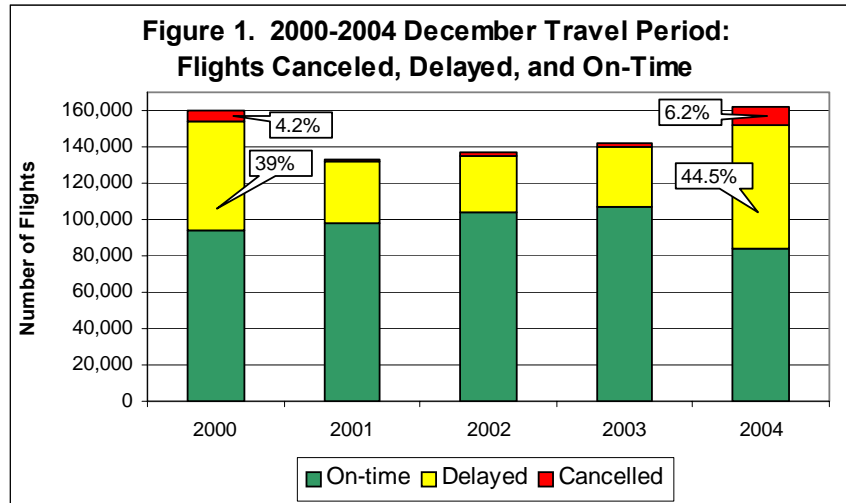
We conducted this review between December 27, 2004, and February 22, 2005. We relied heavily on data supplied by the two carriers; databases maintained by the Department of Transportation; information collected through a specially designated Office of Inspector General complaint hotline; and discussions with management representatives from the carriers, airports, and labor.

To conduct our analysis, we requested a range of data from both airlines related to weather, staffing, operations, and customer service. We did not test internal controls or validate the reliability of the carrier-supplied data. See the Exhibit for a more detailed explanation of the scope and methodology we used to accomplish the review.

RESULTS

The 2004 holiday travel period was not only the busiest² since 2000, but it was also the most congested as measured by rates of airline delays and cancellations. As a result of travel disruptions, actual 2004 holiday period operations fell short of scheduled flights by 6 percent. Systemwide for the 7-day holiday travel period, 44.5 percent of flights were delayed compared to 23.4 percent during the same period in 2003, and 6.2 percent of flights were canceled compared to 1.3 percent in 2003. Figure 1 illustrates changes in on-time, delayed, and canceled flights from the December holiday travel period in 2000 to comparable dates in 2004. The large number of delays and cancellations in 2000 reflect a combination of severe winter storms and congestion.

² As measured by scheduled departures.



Source: FAA System Performance Metrics Database

Contributing to the 2004 record December holiday air travel delays, cancellations, and service disruptions were problems experienced by two carriers: Comair and US Airways. While both airlines experienced service disruptions during the holiday period, the causes, effects, and steps taken to recover from the disruptions were significantly different at the two carriers and will be examined separately in this report.

- Comair’s problems were a function of severe weather and failure of its computer system used to schedule its crews. The system shut down after it reached its monthly transaction limit because of thousands of schedule changes due to the weather. Neither the carrier nor the system manufacturer knew the transaction limit existed. According to Comair, about 191,000 passengers were affected by flight cancellations and another 78,000 passengers were affected by delays. Many passengers had more than one flight canceled, and some were affected first by the weather disruptions and then again by the computer shutdown.

Comair had claims for 11,000 mishandled bags, including 6,800 bags for passengers connecting through the Cincinnati Airport. Comair made an effort to minimize passenger inconvenience during the disrupted travel period, but the severity of the disruptions took a heavy toll on thousands of passengers who were unable to reach their destinations during the holidays.

Comair has temporarily addressed its computer problems with an interim fix that will double capacity until a new crew scheduling system can be installed this summer. While this should prevent recurrence of the computer shutdown that followed the severe winter storm on

December 22nd, there is no guarantee that a storm of the same magnitude could not strike again and cripple operations for Comair or other airlines. Comair could be particularly susceptible to severe weather conditions because its fleet consists exclusively of regional jets, which are less maneuverable on ramps in snow and ice than larger aircraft. However, the impact of any future storm, while severe, would not likely be compounded by the additional computer-related delays and cancellations.

- US Airways problems centered on staffing shortfalls going into the holiday travel period in two critical functions—fleet service employees and flight attendants, particularly at its Philadelphia hub. Managers were aware of those problems and had made various plans to offset the shortages, such as using overtime and increasing the required number of hours worked by flight attendants. However, those plans ultimately did not work. US Airways canceled 405 flights during the holiday travel period, affecting more than 46,000 passengers. In addition, there were over 3,900 delayed flights affecting over 518,000 passengers.

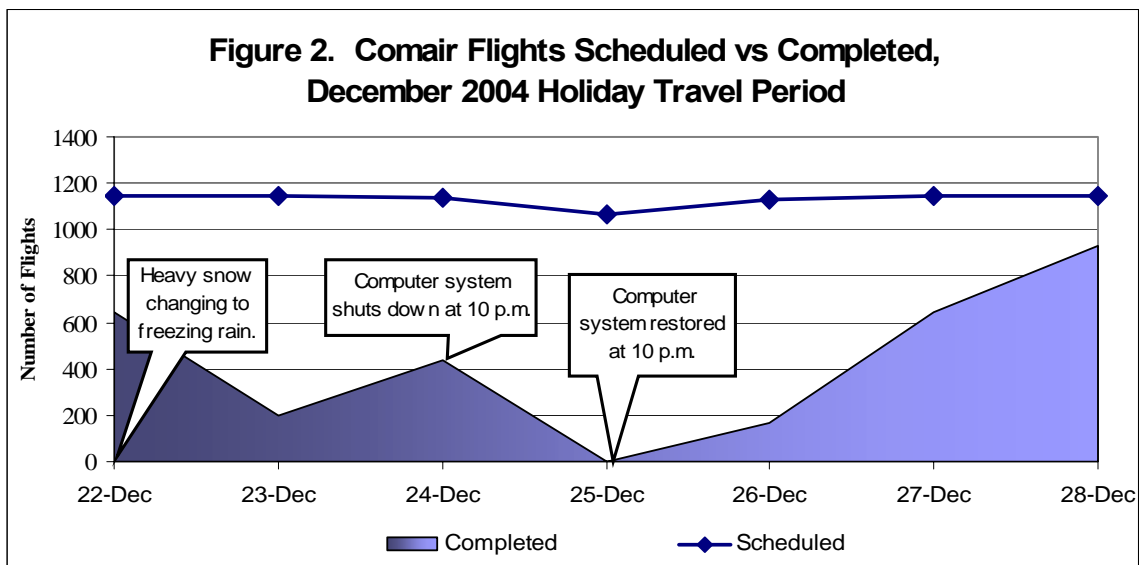
US Airways also experienced a high volume of calls at its reservations and service centers during the holiday period, resulting in many calls being abandoned or dropped. For example, of the 88,197 calls made on December 24th, the airline only handled 39,388, meaning that 55 percent of the calls were never answered. In addition, US Airways had nearly 72,000 claims for lost, pilfered, or damaged baggage but could not tell us the total number of bags those claims represent.

US Airways has subsequently made an intensive effort to increase staffing at its Philadelphia baggage operations, having made job offers to over 260 applicants. In addition, according to US Airways management, the most recent collective bargaining agreement with the Association of Flight Attendants will allow the airline to order an increase to the monthly flying obligation of flight attendants by 5 to 10 hours. However, with the airline in bankruptcy, increasing flight operations, decreasing wages, and asking flight attendants to work additional hours, we have no way to determine whether those actions will prevent a similar situation from occurring in the future.

Severe Weather and Computer Problems Significantly Disrupted Comair Operations

Weather and computer problems significantly disrupted Comair operations during the 7-day period of December 22 through December 28, 2004, ultimately disrupting holiday travel plans for approximately 269,000 passengers, about 191,000 passengers were affected by cancellations and 78,000 passengers were affected by delays. During the first 3 days (December 22nd, 23rd, and 24th), severe weather at the Cincinnati Airport caused Comair to cancel or delay 3,100 (91 percent) of its 3,400 scheduled flights systemwide. Because of the cancellations, Comair made more than 6,000 changes to the carrier's flight crew scheduling and tracking computer system from the 22nd through the 24th. These changes caused the scheduling and tracking system to shut down at about 10 p.m. on December 24th, after the computer system hit a fixed monthly transaction limit. Comair and the computer system contractor (SBS International) stated they were not aware the transaction limit existed.

After the computer shut down, Comair canceled or delayed 3,900 (87 percent) of its 4,500 scheduled flights from December 25th through the 28th. Comair restored the computer system late on the 25th, but additional flights were canceled or delayed through the 28th because flight crews and aircraft were not positioned to immediately resume full flight operations. Comair returned to full flight operations on the 29th. Figure 2 identifies the timeline of Comair events during the 2004 December holiday travel period.



Source: OIG analysis of Comair data

Severe Weather in Cincinnati Affected Comair Particularly Hard

Comair's problems began early on December 22nd, with severe weather in the Cincinnati area. By mid-day on the 23rd, the Cincinnati airport was blanketed with more than 4 inches of snow and 5 inches of compacted ice. Aircraft and other equipment were sheeted in ice. In many cases, they were frozen in place on the ramps. Other carriers at the Cincinnati airport and airports in the region were also affected by the storm, but Comair was hit particularly hard because of several operational characteristics. Comair is based in Cincinnati; pilots, flight attendants, and other Comair employees had difficulty reporting for scheduled flights and shifts because of road closures and conditions. In addition, Comair's fleet is composed entirely of regional jets, which could not move as easily as larger aircraft on icy ramps.

By the evening of December 22nd, Comair was operating only 6 of its 48 gates. On the morning of December 23rd, Comair management reported that ramp staff required 8 to 12 hours of hand digging to free each aircraft from ice to move it to the deice pads. These conditions caused Comair to cancel or delay 3,100 of its 3,400 scheduled flights from December 22nd through December 24th.

Contrary to some reports, Comair never exhausted its supply of glycol, the compound used to deice planes. However, deicing operations required more time and glycol than normal. Comair advised us that normal deicing operations take 6 minutes and 80 gallons of glycol per aircraft; by day's end on December 22nd, the operation required 40 minutes and 1,200 gallons of glycol per aircraft. Glycol levels were at a critical low of 6,000 gallons by mid-day on December 23rd when delivery trucks began arriving.

Comair was starting to return to normal flight operations on December 24th when the computer system used to schedule and track flight crews shut down just after 10 p.m. As a result of the severe weather, Comair made more than 6,000 changes to the flight crew scheduling and tracking system from the 22nd through the 24th. These changes caused the system to shut down after it hit the fixed monthly limit of 32,000 trip transactions.

The computer system schedules and tracks Comair's 1,800 pilots and 1,000 flight attendants; the system is also used to validate compliance with contractual rules and FAA regulations, such as flight time and rest during a 24-hour period. Comair did not have an adequate electronic backup system for the type of failure that occurred, and management decided that the manual scheduling process used in the past could only support a small number of flights. Comair decided that a "clean slate" was the best opportunity to safely and quickly resume full operations and minimize passenger inconvenience. As a result, all flights scheduled for December 25th (1,100) were canceled. Comair restored the computer system on

the 25th by rolling the system back to the 21st and adding transactions only for flights that were actually flown from the 22nd through the 24th.

Before the shutdown, Comair was already in the process of replacing its crew tracking and scheduling system as part of a larger effort to upgrade information technology across all areas of flight operations. Comair began testing and training on the new system in June 2004 and expects to migrate to the new system by this summer. In the interim, Comair has implemented a “bridge solution” that separates the pilots and flight attendants into two sub-systems, each with its own 32,000 monthly transaction limit, providing a more than adequate margin for trip transactions.

Only seven other air carriers—one domestic (Horizon Air) and six foreign carriers (AeroMexico, British Airways, China Air, Royal Air Maroc, Tunis Air, and Virgin Atlantic)—have crew scheduling and tracking systems similar to Comair’s existing system. According to SBS, they have notified the other carriers of the problems and none are in danger of reaching the transaction limit because they have fewer monthly scheduled flights than Comair. Comair restored the system on December 25th, but 3,900 of its 4,500 scheduled flights were canceled or delayed through the 28th because flight crews and aircraft were out of position. Comair returned to full flight operations on the 29th. In total, during the 7-day period, Comair either canceled or delayed nearly 7,000 (89 percent) of its 7,900 flights systemwide because of the extreme weather conditions and the computer shutdown.

Comair Made Efforts To Meet Its Customer Service Commitments, but the Severity of the Disruptions Took a Heavy Toll on Holiday Passengers

Comair made an effort to minimize passenger inconvenience during the disrupted holiday travel period, but the sheer number of cancellations and delays compromised its ability to abide fully by its Customer Service Plan.³ While Comair and Delta Air Lines published an apology, they acknowledge receiving thousands of complaints regarding flight delays and cancellations, poor customer service, baggage, and refunds. We also received about 1,200 complaints to our hotline regarding Comair/Delta service disruptions during the holiday period.

³ In June 1999, Delta (including Comair) and US Airways, along with 12 other airline members of the Air Transport Association, voluntarily instituted Customer Service Plans that prescribed, among other things, procedures for notifying consumers about delays, baggage delivery, ticket refunds, and handling of “bumped” passengers.

With nearly 200,000 itineraries affected by cancellations, Comair estimates that it was able to notify about half of its customers before they reached their departure airports and notified others through airport displays and other means. Nearly 1,000 complaints to our hotline related to delays and cancellations. Many customers were concerned with the accuracy and timeliness of information provided by Comair and Delta. Other customers complained about long hold times when they called Comair and Delta, and still others complained about waiting in long lines at the airport only to find that their flights were canceled when they got to the check-in counter.

Comair also did not meet its customer service commitment to return mishandled baggage within 24 hours. Systemwide, Comair had more than 7,000 claims for 11,000 mishandled bags, including 6,800 bags for passengers connecting through the Cincinnati Airport. According to Comair, 35 percent of the 11,000 mishandled bags were delivered within 1 day, 90 percent within 5 days, and nearly all bags within 6 days. However, we received hotline complaints from several travelers claiming delays of up to 10 days.

US Airways' Plans To Offset Staffing Shortages in Two Critical Functions—Fleet Services and Flight Attendants—Did Not Work

Unlike the weather conditions that nearly shut down Comair's operations in Cincinnati between December 22nd and 24th, weather was not the primary contributor to the severe baggage and flight problems experienced by US Airways during the December 2004 holiday travel period. On December 23rd, weather and air traffic control were factors at US Airways' Philadelphia hub, when high winds moved through the Philadelphia area resulting in 16 canceled departures, 75 delayed arrivals, and 12 diversions of Philadelphia-bound flights to other airports.⁴

During the 2004 holiday travel period, however, only 21 percent of all cancellations and 34 percent of all delays at Philadelphia were attributable to weather or air traffic control. On December 24th, 25th, and 26th—the days when US Airways experienced high levels of flight disruptions—weather and air traffic control accounted for only 11 of the 102 cancellations and 86 of the 308 arrival delays, as reported by the carrier to the Bureau of Transportation Statistics.

The problems experienced by US Airways over the December 2004 holiday period reflect a confluence of events. At that time, the airline was (and still is) attempting to emerge from its second bankruptcy since August 2002, negotiating for difficult concessions from its labor unions, and rebalancing its workforce to support a revised network structure. A significant structural change involved downsizing

⁴ On December 23rd, US Airways had 234 departures and 235 arrivals scheduled for Philadelphia.

operations in Pittsburgh and expanding service in Philadelphia in November 2004. All these changes were important contributors to the inadequate number of scheduled fleet service staff (baggage operations) at Philadelphia and the fewer number of available flight attendants systemwide that ultimately led to service disruptions. Management was aware of the staffing shortfalls, but plans were not sufficient to prevent the shortages that occurred.

Philadelphia Baggage Operations Were Suffering From Personnel Shortages Going Into the Holiday Travel Period, but Plans To Offset the Shortfalls Using Overtime Never Materialized

In Philadelphia, US Airways' second-largest hub,⁵ understaffing of baggage handlers resulted in severe baggage delays that disrupted service and inconvenienced passengers throughout the network. US Airways Philadelphia ramp and baggage operations were suffering from significant personnel shortages going into the 2004 holiday travel period. Difficult and protracted labor negotiations, a 21 percent reduction in wages, mandatory overtime requirements, and ongoing bankruptcy proceedings led to particularly high levels of attrition in the fleet service workforce at Philadelphia.

According to US Airways' records, passengers filed nearly 72,000 claims for mishandled baggage during the 2004 holiday travel period. However, the airline did not provide us with the total number of bags those claims represent. In contrast, the total number of claims for mishandled baggage during the entire month of December 2003 totaled only 20,290.

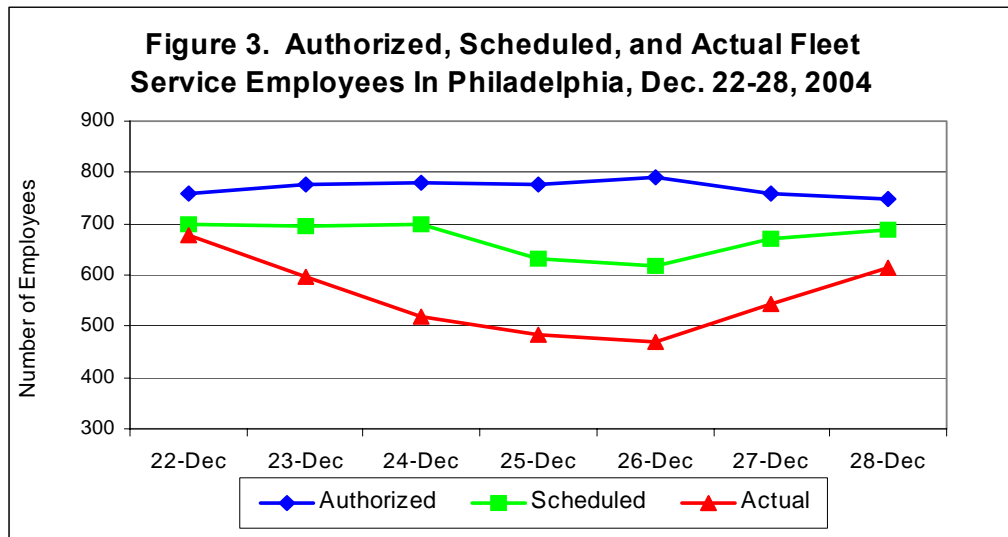
Managers were aware of the shortfall but believed that they could cover the operations with overtime shifts, either voluntary or mandatory, and reassigning catering employees to work as ramp agents. According to US Airways managers, on the afternoon of December 23rd, 15 flights destined for Philadelphia were forced to divert to other cities due to air traffic and weather conditions.⁶ Delays continued to mount throughout the afternoon and evening as those diverted flights finally arrived in Philadelphia.

According to US Airways managers we spoke with at Philadelphia, by 10:00 p.m. operations were in a state of gridlock. With additional flights arriving later in the evening and facing a shift change at 11:00 p.m., managers began offering more overtime, but few employees accepted. Managers told us that they then began invoking mandatory overtime, but most employees either refused to work additional hours or went home sick. By 5:00 a.m. on December 24th, there were 75 cartloads of baggage left over from the previous day.

⁵ Per number of scheduled flights and scheduled seats in December 2004.

⁶ US Airways subsequently adjusted the number of diverted flights to 12 in data reported to the Bureau of Transportation Statistics.

In the following days, as staffing shortfalls worsened, management realized that baggage operations could not keep up with scheduled passenger operations and began canceling flights to “thin out the schedule.” Figure 3 illustrates the differences between the number of employees needed or *authorized* to meet scheduled operations, the number of employees *scheduled*, and the *actual* number of working employees, by day, during the 2004 holiday travel period in Philadelphia. US Airways was unable to provide sick call data for fleet service employees in 2003 so we could not determine if the number or rate of holiday sick calls was higher than the previous year. However, we noted that the level of sick calls was more than double the level experienced during the 2004 Thanksgiving holiday period.

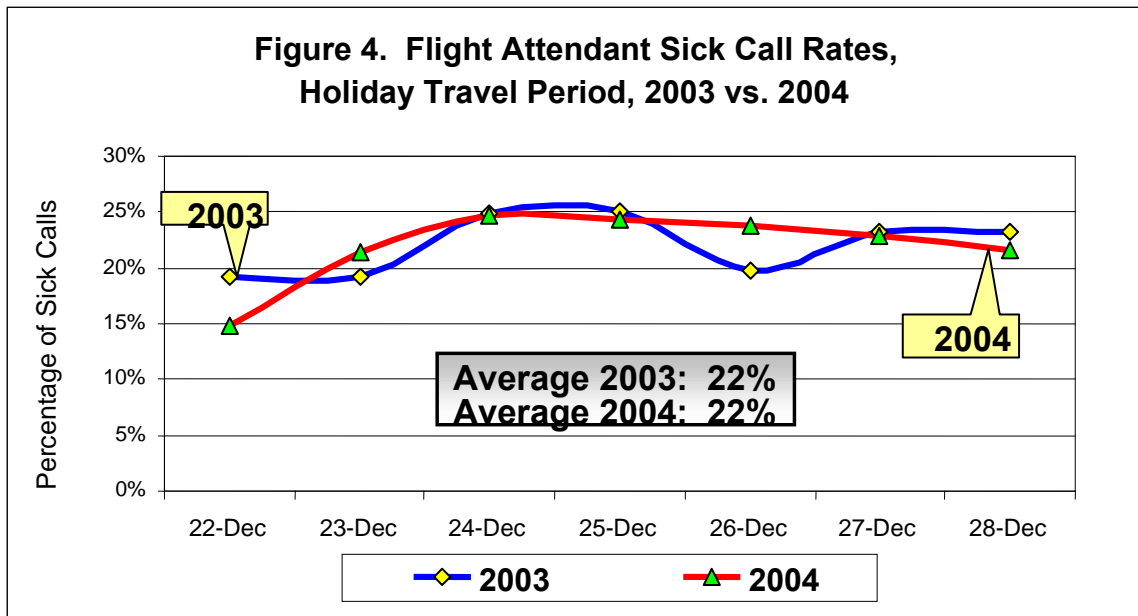


Source: OIG analysis of US Airways data

Management Had Multiple Plans To Meet the Increased Holiday Flight Schedule With Fewer Flight Attendants, but the Plans Were Not Sufficient To Prevent Shortages That Occurred

US Airways has publicly attributed the December 2004 holiday travel disruptions to a high number of sick calls, most notably from its flight attendants. Our analysis, however, found that while the flight attendant sick call rate was higher during the 2004 holiday travel period than the monthly average, it was no higher than, and in some crew bases *less* than, the sick call rate during the holiday travel period in 2003.

In fact, on December 24th and 25th, the days when most of the systemwide cancellations occurred, sick call rates in 2004 (25 and 24 percent, respectively) were the same or *lower* than the same dates in 2003. The real problem was the inadequate level of available flight attendants to cover for sick calls or other absences. Figure 4 shows the flight attendant sick call rate for December 2004 was not significantly different than for the December 2003 holiday period.



Source: OIG analysis of US Airways data

As a result of bankruptcy restructuring and cost-cutting, flight attendant headcounts had been reduced from 2003 levels in all but one of US Airways’ six crew-base airports, meaning that fewer flight attendants and reserves had to cover a greater number of flights. For example, the December 2004 headcount in Philadelphia dropped 8.4 percent from December 2003 levels, despite a growth in scheduled departures of 33 percent.

Management at US Airways knew well in advance that their flight attendant staffing levels were not sufficient to cover the December schedule but had made compensating plans that ultimately did not work. This was especially true in Philadelphia, where a decision had been made not to transfer excess flight attendants from the downsized Pittsburgh hub to Philadelphia until the company’s future was more certain. According to airline data, the month of December had a systemwide shortage of 3,481 hours, or the equivalent of about 43 flight attendants.

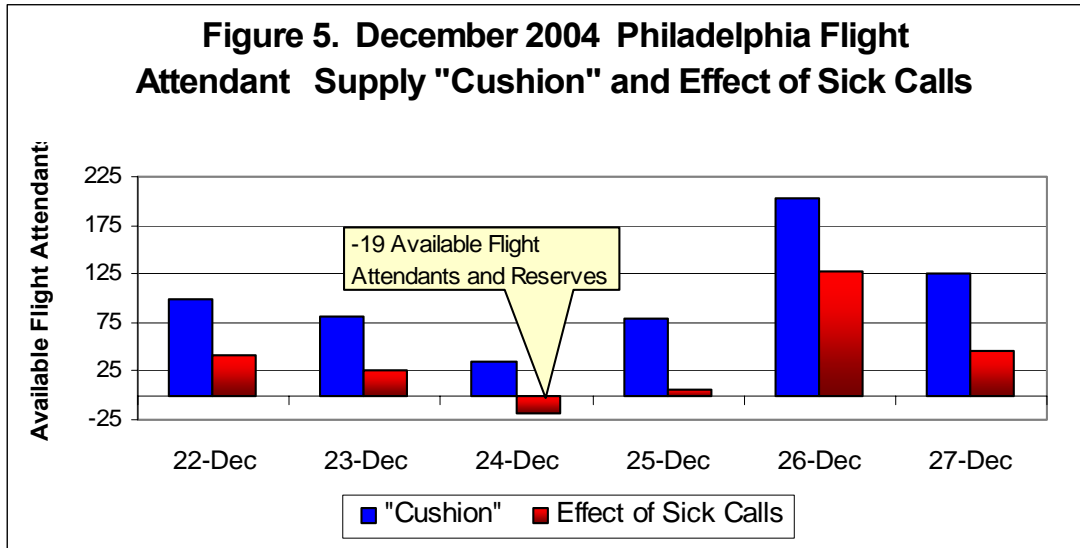
US Airways' management also expected a significant number of furloughed flight attendants to return to work. According to US Airways, there were 3,487 flight attendants on furlough as a result of cutbacks and two reorganizations before December 1, 2004. Of those, 341 had a right to return to work on December 2, 2004 by giving notice of their intent to return by September 12, 2004. However, according to US Airways managers, only 229 actually returned and most of those needed refresher training courses and were not available for work during the holiday period.

In late November 2004 and pursuant to an October 2004 ruling by the bankruptcy court, management instructed all flight attendants to increase their flying obligations in December by 5 hours, or about 1 extra day. US Airways contends that if all flight attendants had complied, the additional hours would have added the equivalent of 276 flight attendants, which would have been more than enough to satisfy crew requirements in December.

Although neither US Airways nor the flight attendant union can explain why, the flight attendants did not add the extra hours as instructed, and the surplus never materialized. Managers contend that the "liquid" nature of the flight attendant scheduling process made it nearly impossible to monitor flight attendant schedule obligations throughout the month. As a result, the thin "cushion" of reserves was not sufficient to cover sick calls or flight attendants approaching duty-hour limits.⁷

In Philadelphia, which accounted for more than one-third (138) of the 405 US Airways cancellations during the December 2004 holiday period, the staffing shortfalls were most pronounced on December 24th and 25th. On December 24th, after fulfilling schedule requirements ("demand") with scheduled flight attendants and reserves ("supply"), US Airways was left with a "cushion" of only 34 reserves, compared to a cushion of 112 reserves on the same date in 2003. On December 24th, 2004, 53 scheduled flight attendants called in sick, exhausting the remaining reserves and leaving Philadelphia short 19 flight attendants for that day's schedule. On December 25th, after 73 sick calls, US Airways margin was down to 7 positions. Figure 5 shows, by day, how the low reserve margins were depleted by flight attendant sick calls.

⁷ Flight attendants are limited by the FAA in the number of hours they can work without rest. If flights are delayed and duty hours are extended as a result of delays, a flight attendant or crew might be required to rest before continuing with his or her scheduled tour, resulting in a trip that must be filled by reserves.

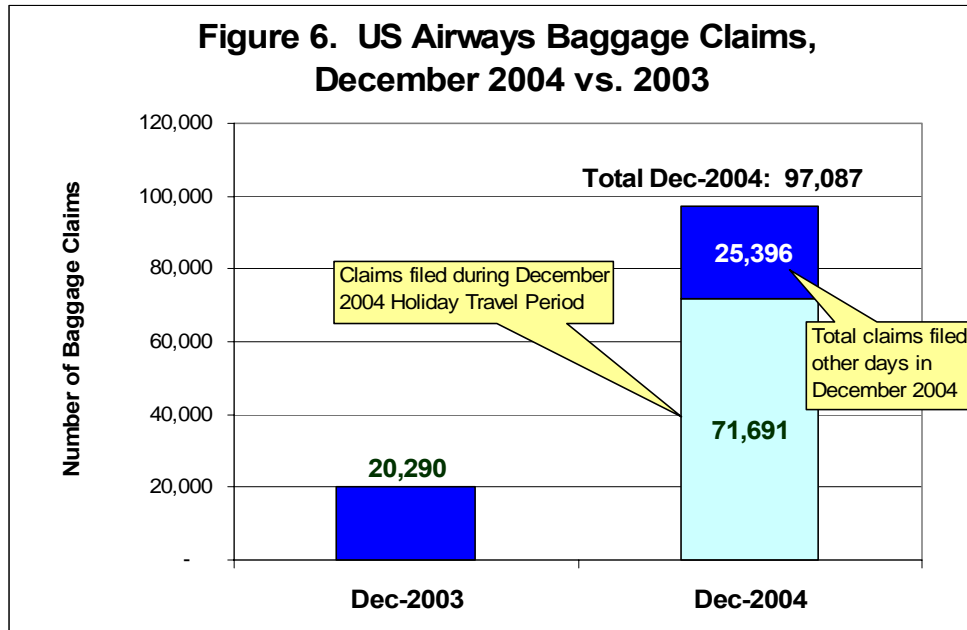


Source: OIG analysis of US Airways data

US Airways’ managers acknowledged that they knew they were short flight attendants in Philadelphia and that the plan had been to use “surplus” reserves in Pittsburgh to cover the open trips. However, on the days in question, Pittsburgh’s reserves—after covering Pittsburgh-based flight attendant sick calls—were also very low. Delays on the 23rd resulting from weather and other factors also placed some flight attendants in potential hours-of-duty violations, putting further demand on the thin or non-existent local reserve pools. US Airways managers acknowledged that flights were canceled and consolidated to make better use of available crews.

US Airways Made Efforts To Meet Its Customer Service Commitments, but the Severity of the Disruptions Took a Heavy Toll on Holiday Travelers

According to US Airways, the December 2004 holiday period flight delays and cancellations affected more than 560,000 passengers. US Airways management told us that they provided services in accordance with their Customer Service Plan for notifying and accommodating the flying public, such as informing passengers of delays in a timely manner, and for refunding tickets on canceled flights. However, US Airways acknowledges that it did not meet its commitment to return mishandled bags within 24 hours. As shown in Figure 6, passengers filed nearly 72,000 claims with the airline for lost, damaged, pilfered, and delayed bags during the December 2004 holiday travel period.



Source: OIG analysis of US Airways data

US Airways did not provide data on when baggage was returned, but as of January 27th, the airline still had more than 400 bags from the holiday period that remained unclaimed.

US Airways also experienced a high volume of calls at its reservations and service centers during the holiday period, resulting in many calls being abandoned or dropped. For example, of the 88,197 calls that were made on December 24th, the airline only handled 39,388, meaning that 55 percent of the calls were never answered.

US Airways told us that they notified customers about cancellations and delays through their automated telephone system or at the airport through electronic monitors and agents. According to the airline, customers were allowed to change or cancel flights without penalty. US Airways said that it provided refunds to over 12,000 passengers and over 10,000 free or discounted vouchers for future travel. US Airways also said that it is reimbursing customers for items purchased as a result of mishandled bags, as well as for rental cars, hotels, and train tickets.

However, US Airways readily acknowledges that many passengers were unhappy with the service they received during the 2004 holiday travel period. US Airways received approximately 7,000 customer complaints related to the travel period from December 22nd through 28th, a 200 percent increase over the same period in 2003.

Office of Inspector General Travel Disruption Hotline

In response to the magnitude of the Comair and US Airways travel disruptions during the December 2004 holiday travel period, the Office of Inspector General established a toll-free hotline for inconvenienced passengers to submit comments about their travel experiences. Between December 30, 2004, and early February 2005, nearly 3,000 passenger complaints were received. Staff from the Office of the Secretary's General Counsel's Office, as well as the Aviation Consumer Protection Division, provided us with assistance in administering the hotline.

About 1,200 hotline complaints were related to Comair/Delta service disruptions, and 1,100 were directed at US Airways. The remaining complaints described adverse experiences on several other airlines or did not identify the specific airline in question. By far, the largest complaint area related to flight delays and cancellations, followed by mishandled baggage issues. Compensation/refunds and poor customer service accounted for the next largest number of complaints.

We also forwarded our hotline database to the General Counsel's Office of Aviation Enforcement and Proceedings for their review. The Office performed an initial screening of the complaints and, as of early February, had identified about 100 passenger complaints that may be potential violations of the Department's aviation consumer rules or a violation of the airlines' contracts of carriage. Of these 100, refunds led the complaint categories, followed by potential violations of the airlines' contracts of carriage and mishandled baggage violations. The Office plans to further review each of these complaints and will take enforcement action as warranted.

Comair and US Airways Comments

On February 23, 2005, we met with each carrier and provided them with a draft copy of this report for their review and comment. Based on those meetings, we made changes to the report as appropriate.

We want to thank your staff for the assistance they provided us during this review. If you have any questions or need further information, please contact me at (202) 366-1959 or my Deputy, Todd J. Zinser, at (202) 366-6767.

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PART I. COMAIR

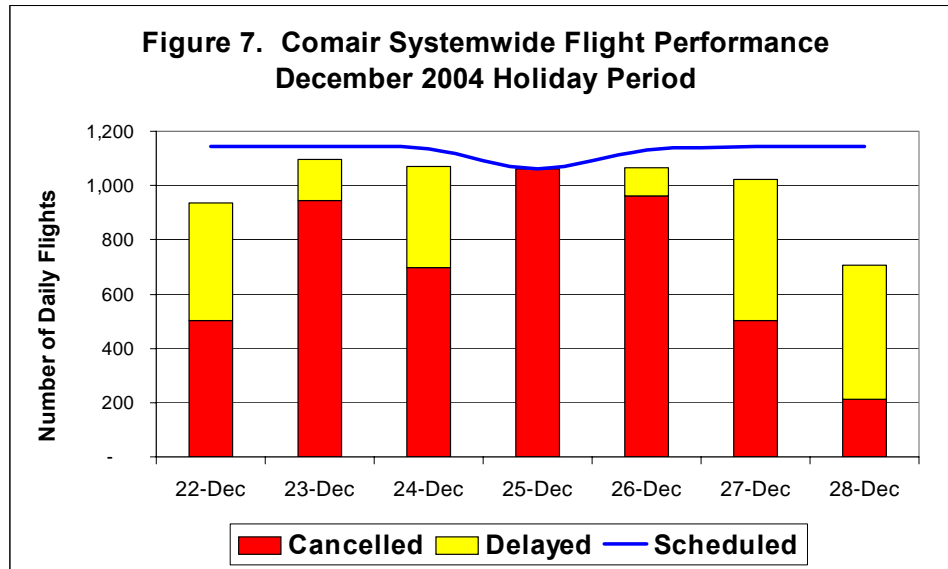
Comair's hub is at the Cincinnati/Northern Kentucky International Airport (Cincinnati Airport) in Erlanger, Kentucky. Delta Air Lines (Delta) acquired Comair in January 2000, but Comair has been a Delta Connection partner since 1984. These carriers are separate companies with their own employees and labor agreements. However, Comair does use Delta's customer service and reservation systems.

Comair uses 164 Bombardier CRJ aircraft, mostly 50-seat airplanes, to operate 1,145 flights daily to 119 cities in the United States, Canada, and the Bahamas. Comair has more than 6,000 employees. More than 4,000 of them, including all 1,800 pilots and all 1,000 flight attendants, are based in Cincinnati. Of the 644 daily departures from Cincinnati, Comair, Delta, and two other Delta Connection carriers operate 592 (92 percent), and 392 of the 592 flights are Comair flights.

During the 7-day period of December 22nd through December 28th, Comair either canceled or delayed nearly 7,000 (89 percent) of its 7,900 scheduled flights. During the first 3 days, severe weather at the Cincinnati Airport caused Comair to cancel or delay 3,100 (91 percent) of its 3,400 scheduled flights systemwide. Because of the cancellations, Comair made more than 6,000 changes to the carrier's flight crew scheduling and tracking computer system from the 22nd through the 24th. These changes caused the scheduling and tracking system to shut down at about 10 p.m. on the 24th after it hit a fixed monthly transaction limit. Comair was not aware the limit existed.

After the computer shut down, Comair canceled or delayed 3,900 (87 percent) of its 4,500 scheduled flights from December 25th through the 28th. Unable to support more than a small number of flights with a manual backup system, Comair management canceled all flights scheduled for the 25th as it worked to restore the computer system.⁸ Comair restored the computer system later that day, but thousands of additional flights were canceled or delayed through the 28th because flight crews and aircraft were not positioned to immediately resume full flight operations. Comair returned to full flight operations on the 29th. Figure 7 compares Comair's daily performance to its scheduled flights from December 22nd through the 28th.

⁸ Three flights originally scheduled for late December 24th departed on the 25th to get unaccompanied minor children out of Cincinnati and to their destinations.



Source: OIG analysis of Comair data

Severe Weather Began on December 22nd—by Mid-Day on the 23rd the Cincinnati Airport Had 5 Inches of Compacted Ice and 4 Inches of Snow

Comair’s problems began on December 22nd with severe weather conditions in the Cincinnati area. Weather conditions were, according to various accounts, the most extreme ever encountered at the Cincinnati Airport. Forecasts called for light freezing rain and snow beginning early on the 22nd, changing to all snow before noon and tapering off to flurries and snow showers the morning of the 23rd, with 6 to 8 inches total accumulated snow. The weather began as a mix of light freezing rain and snow early on the 22nd but, unlike the forecast, changed to heavy snow, freezing rain, and ice pellets around mid-day. By mid-day on the 23rd, the airport had 5 inches of compacted ice and more than 4 inches of snow. Sub-freezing temperatures continued into the 25th.

The Cincinnati Airport, in coordination with the Federal Aviation Administration’s (FAA) Air Traffic Control, stopped all operations, a “ground stop,” twice to clean runways on December 22nd. Both of the ground stops lasted about 1 hour: one occurred at 8:00 a.m. and the other at 1:00 p.m.

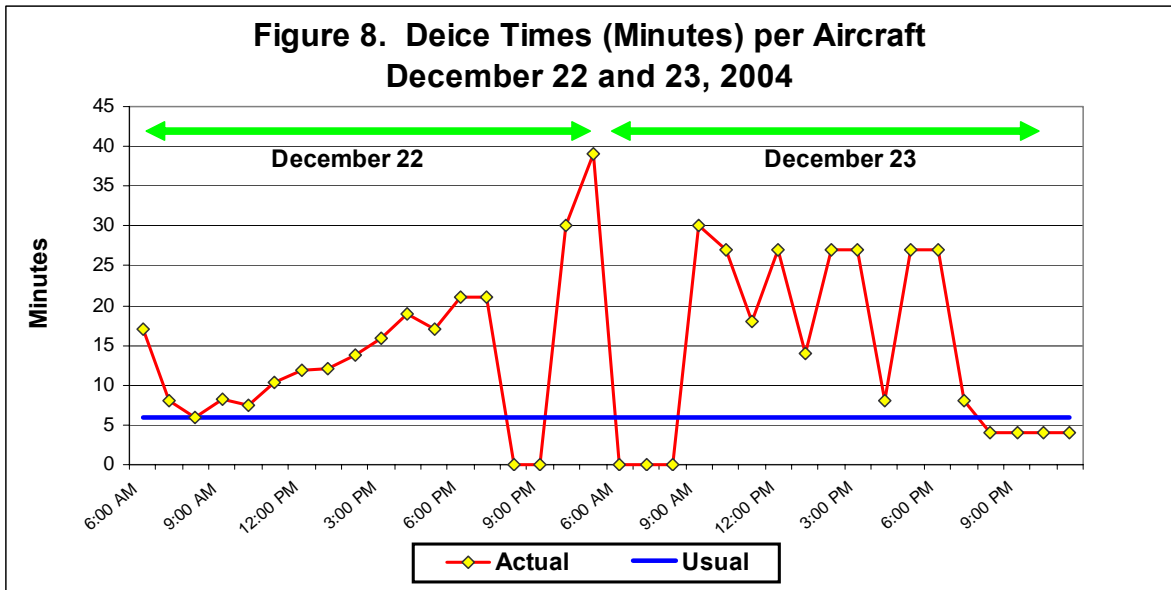
Comair was severely affected by the weather because all Comair aircraft rotate through the Cincinnati hub. The vast majority are out-and-back flights and the remainder are on a round-robin schedule where aircraft go to multiple cities before returning to Cincinnati. By the evening of December 22nd, Comair was operating only 6 of its 48 gates. Local roads were closed to all but emergency and essential traffic, making it difficult and in some cases impossible for pilots and flight

attendants to get to the airport. Aircraft and other equipment (e.g., power cords, baggage tugs and carts, and tow tractors) were sheeted in thick ice, often frozen in place on the ramps.

Other carriers experienced similar disruptions at the Cincinnati Airport, although not as severe as those experienced by Comair. Comair managers attribute the carrier's higher level of disruptions to two factors. First, Comair crews are based in Cincinnati, where road closures made it extremely difficult for aircrews to get to the airport. Aircrews for other carriers, such as Delta, arrived with inbound flights. Second, unlike larger aircraft operated by Delta, Comair's smaller regional aircraft had less maneuverability on ramps in the ice and snow conditions at the Cincinnati Airport. Larger aircraft were better able to use their engines to move out of ice and snow. In contrast, Comair management reported that ramp staff required 8 to 12 hours of hand digging to free each aircraft from the ice on the morning of the 23rd.

Deicing Operations Were Extremely Arduous and Required Significantly More Deicing Fluid Than Normal Operations but Comair Never Exhausted Its Supply

Contrary to published reports, Comair never exhausted its supply of deicing agent (glycol). However, the severe weather conditions affected Comair deicing operations, requiring more time, glycol, and effort than normal to deice aircraft. Typically, Comair takes about 6 minutes and 80 gallons of glycol to deice each regional jet. Comair took about 40 minutes and 1,200 gallons of glycol to deice a jet at 11:00 p.m. on December 22nd. Rather than the normal "spray" used to clean aircraft, Comair used a focused stream of glycol to "cut" heavy snow and ice from aircraft. Figure 8 shows how long it took Comair to deice aircraft on the 22nd and 23rd. Comair did not operate any flights from 8 p.m. to 9 p.m. on the 22nd and from 6 a.m. to 8 a.m. on the 23rd.



Source: OIG analysis of Comair data

Glycol inventories were reduced from 46,000 gallons (normally a 2- to 3-week supply) when the storm began to about 6,000 gallons by mid-day on the 23rd. Five deliveries (25,000 gallons) of glycol arrived between 2 p.m. and 10 p.m. on the 23rd, restoring inventories to normal operational levels. Two of the five deliveries had been scheduled for the 22nd but were delayed by hazardous road conditions. Delta, the next largest carrier at the Cincinnati Airport, also used much higher than normal amounts of deicing fluid during the severe weather conditions. Delta’s inventory began at 56,000 gallons on December 22nd and dipped to 2,000 gallons late that evening. Delta began receiving additional glycol at 11:00 a.m. on the 23rd.

On December 24th, Comair’s Automated Crew Scheduling and Tracking System Shut Down

Comair was starting to recover from the severe weather on December 24th when the computer system used by Comair to schedule and track flight crews shut down at about 10 p.m.⁹ The system reached its monthly trip transaction limit and shut down as a result of numerous changes made to flight crew schedules brought on by the severe weather conditions of December 22nd through the 24th. Referred to as TRACK, the system was installed at Comair in 1986 and is leased from SBS International (SBS).

⁹ Comair flew 56 percent of its schedule on the 22nd, 17 percent on the 23rd, and 39 percent on the 24th.

TRACK provides a centralized database to view, monitor, and change schedules for Comair's 1,800 pilots and 1,000 flight attendants. The system is also used to validate compliance with contractual work rules and FAA regulations, such as flight time and rest during a 24-hour period.

According to senior Comair management and SBS representatives, neither was aware that the system had a fixed limit that, if exceeded, would cause the system to fail. Comair entered 6,200 trip modifications to TRACK from December 22nd through December 24th. TRACK shut down when it reached 32,000 trip transactions for the month on the evening of the 24th. Comair's monthly transactions averaged about 25,800 per month for January through November 2004 and never exceeded 30,000 transactions during this time.

On the evening of December 24th, Comair reverted to a manual backup system, while SBS attempted to determine why the automated system shut down. Comair maintains and updates critical scheduling data on a manual system outside the regular system. These backup data are used to manually schedule crews (on paper) in case of system malfunction. The manual system, which is labor intensive, had been used previously during a 4-hour power outage in January 2004. At that time, the manual backup worked as intended, permitting Comair to schedule seven flights that would have otherwise been canceled.

During the early morning on December 25th, senior Comair management determined that the manual process could only support a small number of flights. As a result, Comair decided that a "clean slate" was the best opportunity to safely and quickly resume full operations and minimize passenger inconvenience. Accordingly, Comair canceled all 1,100 flights on the 25th.

Comair and SBS restored the computer system late on December 25th. First, Comair stored data for the entire month of December on a backup server for reference. Comair then rolled back the system to the environment as it existed on the 21st, before severe weather disrupted Comair operations, and added back transactions for flights that were actually flown from the 22nd through the 24th. By not including transactions for flights that were canceled from the 22nd through the 24th, Comair reduced the December trip transaction count to about 25,800 through the 24th (more than 6,000 below TRACK's limit for the remainder of December).

It took several days for Comair to return to normal flight operations after the computer system was restored. Flight crews and aircraft were not properly positioned to immediately resume full operations. From the 25th through the 28th, Comair canceled or delayed 3,900 of its 4,500 scheduled flights.

According to SBS representatives, the 32,000 trip transaction limit was coded in TRACK programs and would have taken weeks of reprogramming and testing to resolve. Comair implemented a “bridge solution” to enhance TRACK until a replacement system is implemented in mid-2005. Specifically, Comair duplicated the trip transaction module so TRACK can schedule pilot and flight attendant trips separately. While this process is more labor intensive, it essentially doubles TRACK’s capacity for trip transactions because one module can track 32,000 pilot trips and the other module can track 32,000 flight attendant trips per month. In addition to making the changes to TRACK, Comair also began generating a daily report to closely monitor the volume of month-to-date trips to ensure the transaction limit is not reached again.

According to Comair officials, the carrier was in the process of replacing TRACK as part of a much larger effort to upgrade information technology across all areas of flight operations. Comair began reviewing replacement systems for TRACK in 2003 and selected the Sabre AirCrews system later that year. This system is expected to result in better communications with crews, improved administration of crew logistics and labor contract requirements, and more efficient and effective processing of crew trip transactions.

Comair installed a base version of the AirCrews system in June 2004 for testing. Comair expects to complete staff training and migrate from the current system to the AirCrews system by June or July 2005. According to Comair, the new system does not have any transaction coded processing limitations and is equipped with various improvements, such as having a full backup system with the same processing power as the primary computer. Comair believes the actions taken to fix and monitor TRACK will provide an adequate bridge until the new crew scheduling and tracking system is implemented.

According to SBS representatives, seven other carriers (one U.S. and six foreign) use the same version of TRACK as Comair. The U.S. carrier is Horizon Air. The foreign carriers are AeroMexico, British Airways, China Air, Royal Air Maroc, Tunis Air, and Virgin Atlantic. SBS representatives assured us that the seven carriers were advised of Comair’s experiences but that none of the carriers is in danger of reaching the transaction limit. Based on statistics available from FAA’s Flight Schedule Data System, the other carriers operate fewer departures than Comair. For example, Horizon Air and British Airways operated 57 percent and 38 percent fewer departures, respectively, than Comair in December 2004.

Customer Service

Delta Air Lines expects Comair to conform to Delta customer service commitments and policies. Comair made an effort to minimize passenger inconvenience during the disrupted holiday travel period, but the sheer number of cancellations and delays compromised its ability to abide by its Customer Service Plan. According to Comair and Delta projections, about 191,000 customer itineraries were affected by cancellations and another 78,000 customers were affected by delays. Comair and Delta officials estimate that they notified 50,000 of these customers before they reached their scheduled departure airports through an automated system that rebooks and reaches customers through electronic means such as e-mails and pager numbers included in customer itineraries.

In addition, Comair and Delta representatives personally called an estimated 48,000 customers before they arrived at the airport. Comair estimates it handled 60,000 customers after they arrived at airports or by incoming reservation calls. Comair officials advised us that it was impossible to clearly identify when and how the remaining customers were notified of cancellations.

According to Comair management officials, the carrier increased operations staff at the Cincinnati Airport beyond normal levels from December 22nd through the 28th. These officials advised us that operations staff (e.g., ramp, baggage, tower, and gate staff) worked about 2,500 overtime hours during the 7-day period.

Customer Complaints. Comair and Delta published an apology and mobilized to address customer concerns. According to Comair, its Customer Care Department set up 18 additional telephone lines to answer customer calls. Representatives worked additional hours, including weekends when Customer Care is normally closed, to address customer concerns. In addition, contacts with Delta Customer Care have been extensive, as illustrated by the nearly 13,000 contacts received by Delta Customer Care for the period December 27, 2004, through January 11, 2005: 7,500 internet contacts and 5,200 telephone contacts. According to management, by January 12th, Delta Customer Care had processed 4,300 of the internet contacts and all of the telephone contacts. Comair and Delta acknowledged that many of the contacts included complaints related to Comair's problems from December 22nd through the 28th. According to Comair and Delta officials, the complaints cannot be readily summarized by type (i.e., baggage, flight delays and cancellations, poor customer service, and refunds).

Also, about 1,200 Comair customers contacted our hotline regarding holiday service disruptions. Oftentimes, the contacts included complaints about more than one customer service issue, with nearly 1,000 complaints regarding delays and cancellations. Many of these customers were concerned with the accuracy or

timeliness of information provided by Comair and Delta. Some individuals complained about not being contacted personally, as opposed to finding out about cancellations or delays by e-mail, on the carriers' web sites, or from media reports. Other customers complained about long hold times when they called Comair and Delta. Still others complained about waiting in long lines at the airport only to find out their flights were canceled when they got to the check-in counter. In addition, the hotline recorded close to 400 complaints about baggage, more than 200 complaints about refunds or other compensation, and nearly 150 complaints about poor customer service.

Accommodations. According to information provided by Comair officials, the carrier reserved 2,060 rooms at 13 hotels near the Cincinnati Airport for customers during the 7-day period. The rooms were provided at a reduced rate during weather-related cancellations on December 22nd and 23rd. After the crew tracking and scheduling system shut down, the rooms were provided at no charge. Customers used about 1,800 of the reserved rooms.

Comair estimates that about 900 customers stayed at the Cincinnati Airport each night from December 22nd through the 24th. For these customers, Comair arranged to have vendors stay open late and made available 100 cots, as well as blankets, pillows, food vouchers, telephone cards, overnight kits, and snacks. Our hotline had various complaints regarding food selections, inadequate cots and other bedding, and insufficient personal items such as toiletries.

Special Needs Passengers. Comair passenger service representatives at Cincinnati told us they gave priority to passengers with special needs (i.e., children, seniors, and those with disabilities) during the period of high-volume cancellations and delays. To illustrate, on December 22nd and 23rd, passenger service representatives contacted origin cities to advise Comair staff not to send unaccompanied minors to Cincinnati. For those unaccompanied minors who arrived in Cincinnati, Comair established a priority list that focused on flights to destinations where the minors needed to travel, including flights operated by other carriers. In spite of these efforts, Comair had to keep 26 unaccompanied minors overnight in Cincinnati. According to Comair, unaccompanied minors did not stay overnight in any other cities on the 22nd, 23rd, or 24th.

Comair officials provided information showing that the carrier provided accommodations at 3 local hotels for the 26 unaccompanied minors who stayed overnight in Cincinnati. According to this information, the minors stayed 1 to 3 nights each in the hotels (16 stayed 1 night, 9 stayed 2 nights, and 1 stayed 3 nights). The minors were accompanied in adjoining rooms by Comair employees at all times. Minors were accompanied by chaperones of their own gender, and transportation was provided by hotel courtesy vans. According to Comair officials, the chaperones contacted parents when the minors reached the

hotel and returned to the airport. All unaccompanied minors had departed Cincinnati by mid-day on the 25th.

Comair did not have specifics on how many assists for customers with a disability were actually provided during the holiday disruptions because the carrier contracts with a local company for wheelchair services at the Cincinnati Airport. While Comair was not aware of any complaints regarding assistance for customers with a disability, our hotline included a few comments from customers with a disability who felt they were not given sufficient help moving around the airport.

Baggage. Comair had more than 7,000 claims systemwide for 11,000 mishandled bags, including 6,800 bags for passengers connecting through the Cincinnati Airport. As ice formed in the gate areas in Cincinnati, baggage equipment became useless, forcing baggage handlers to off-load aircraft by hand. Comair secured misplaced baggage in a Delta hanger. According to Comair, when the baggage was needed for emergency purposes, such as to retrieve medication, Comair reunited bags with customers stranded in the Cincinnati Airport.

Comair did not meet its goal to return mishandled baggage within 24 hours. Systemwide, 35 percent of the 11,000 mishandled bags were delivered within 1 day, 90 percent within 5 days, and nearly all bags within 6 days, according to Comair officials. Once the Cincinnati Airport began to thaw, Comair used various Delta and Delta Connection flights to reunite passengers with lost baggage. Comair also used local trucking companies to move bags from Cincinnati to their destinations. Some baggage was delivered later than claimed by Comair, based on information received by our hotline. A few passengers claimed delays of up to 10 days. Customers who used alternative means of transportation or changed their travel plans seem to have experienced the greatest baggage delays.

Refunds and Other Compensation. Delta handles all refunds for Comair. Delta issued more than 79,000 refunds from December 22, 2004, through January 19, 2005. However, Delta cannot readily separate the requests by carrier. Delta Customer Care records show it processed nearly 25,300 refund requests received from December 27, 2004, through January 5, 2005. In addition, Delta Customer Care records show Delta was processing refund requests within 3 business days, whether customers paid for the tickets with credit cards, cash, or checks.

In addition to providing full refunds for canceled tickets, Delta deposited Delta SkyMiles into customer accounts. By January 7, 2005, Delta had deposited almost 1 billion SkyMiles into customers' accounts. Customers were receiving 25,000 miles for canceled trips and 15,000 miles for delayed trips. When requested, Delta was reimbursing customers for out-of-pocket expenses, such as toiletries or transportation.

Delta gave transportation vouchers, in addition to full ticket refunds, to customers who did not have SkyMiles accounts. The vouchers ranged from \$150 to \$350, based on the customers' inconvenience. Like SkyMiles customers, these customers were also being reimbursed for out-of-pocket expenses. However, customers commented to our hotline that they should have been reimbursed for money lost on vacation plans, such as deposits for housing and hotel accommodations, automobile rentals, and tickets for theme parks and sporting events. Other passengers felt they should have been reimbursed for expenses such as airport parking. Still others felt that ticket refunds and SkyMiles did not fully compensate them for their lost holidays.

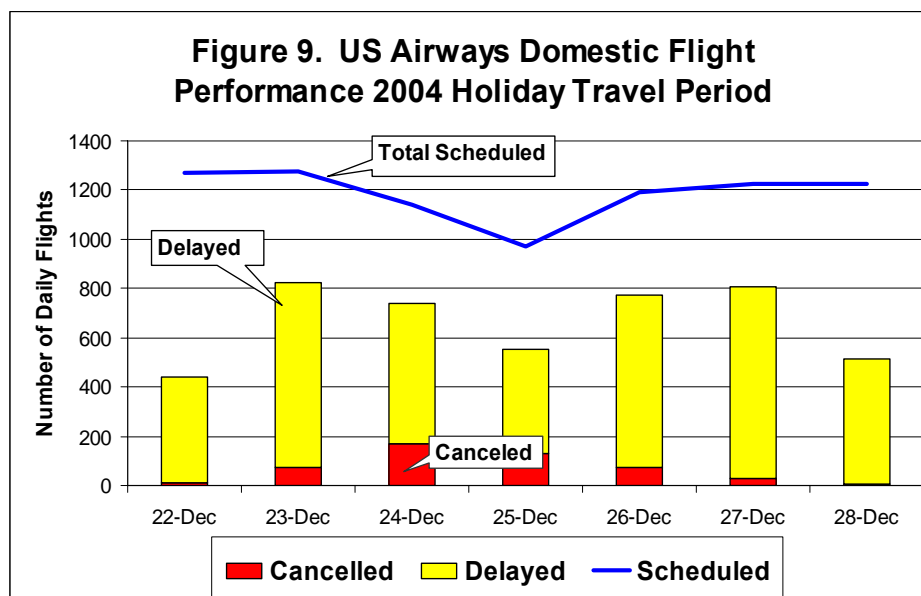
PART II. US AIRWAYS

US Airways is the nation's sixth largest airline in terms of passengers carried. US Airways' flight operations are concentrated primarily on the East Coast with hubs in Philadelphia and Charlotte and significant operations that the carrier calls "focus cities" in Pittsburgh, Boston, New York, and Washington, DC. US Airways and its regional codeshare partners at US Airways Express operate a total of 3,209 flights per day to 174 cities. The US Airways Express carriers provide connecting passengers to US Airways at its hub and focus cities. Similar to Comair and Delta, these carriers are separate companies with their own employees and labor agreements.¹⁰

US Airways is undergoing its second Chapter 11 bankruptcy reorganization since August 2002. As part of its restructuring, US Airways has negotiated labor agreements that include wage cuts and employee furloughs. US Airways has also restructured its route system. As part of this effort, flight operations at Pittsburgh have been reduced by 26 percent, and flight operations at US Airways' Philadelphia hub have been expanded by 33 percent.

The service disruptions experienced by US Airways during the 2004 holiday period occurred as a result of a confluence of events. Those events included poor weather on December 23rd, shortages of fleet service and flight attendant staffing, and management plans and decisions that ultimately did not work. The service disruptions resulted in thousands of delayed or canceled flights, huge backlogs of lost and diverted bags, and delayed or canceled holiday plans for thousands of holiday travelers that required the airline to mount an extensive effort to meet its customer service needs. Figure 9 compares US Airways daily performance to its scheduled flights from December 22 through December 28, 2004.

¹⁰ Two of the express carriers are wholly owned subsidiaries of US Airways Group. One express carrier is operated as a division of US Airways.



Source: Bureau of Transportation Statistics

Weather Was a Factor on December 23rd, but Not the Primary Cause of Cancellations and Delays During the Holiday Period

Weather conditions in Philadelphia were nowhere near the severity of weather (snow and freezing rain) that blanketed Cincinnati and caused major disruptions to Comair operations. However, on December 23rd, weather and air traffic control delays were factors when high winds moved through Philadelphia and caused 16 flight cancellations, 75 arrival delays, and 12 flight diversions.¹¹

According to data provided by US Airways to the Department of Transportation Bureau of Transportation Statistics (see Table 1), weather and air traffic control only accounted for 29 of the 138 (21 percent) departure cancellations experienced at Philadelphia during the 7-day holiday travel period and 280 of the 819 (34 percent) arrival delays. In fact, on December 24th, 25th, and 26th (the days US Airways experienced some of the highest number of cancellations), weather accounted for only 11 of the 102 canceled flights (11 percent) and 86 of the 308 delayed flights (28 percent).

¹¹ On December 23rd, US Airways had 234 departures and 235 arrivals scheduled for Philadelphia.

**Table 1. US Airways Philadelphia Cancellations and Delays,
2004 Holiday Travel Period**

Day	Departure Cancellations			Arrival Diversions	Arrival Delays		
	Total	Weather/ ATC ^{a/}	Other ^{b/}		Total	Weather/ ATC ^{a/}	Other ^{b/}
Dec 22	3	1	2	0	100	35	65
Dec 23	27	16	11	12	137	75	62
Dec 24	44	2	42	4	122	40	82
Dec 25	32	1	31	1	71	13	58
Dec 26	26	8	18	7	115	33	82
Dec 27	5	1	4	0	158	52	106
Dec 28	1	0	1	1	116	32	84
Total	138	29	109	25	819	280	539

a/ Weather and air traffic control delays and cancellations include weather and air traffic control-related causes such as flight volume, severe weather avoidance, and ground stops.

b/ Other causes of delays and cancellations include staffing, maintenance, and late-arriving aircraft.

Sources: FAA Aviation System Quality Performance Data and On-Time Performance reported by the Bureau of Transportation Statistics

Managers Were Aware that Philadelphia Baggage Operations Were Suffering from Personnel Shortages Going Into the Holiday Travel Period, but Plans To Offset the Shortfalls Using Overtime Did Not Work

US Airways' Philadelphia ramp and baggage operations were already suffering from personnel shortages going into the holiday period. Management's plan to deal with the shortages depended heavily on employees working overtime. However, with actual sick calls significantly higher than expected and few employees volunteering for extra overtime, the plan did not work. US Airways was unable to provide sick call data for 2003 so we could not determine if holiday sick calls were higher than last year.

By the end of the holiday period, eight aircraft had departed Philadelphia with no bags on board because there were not enough employees to load them, and a huge backlog of lost and diverted bags could only be relieved by moving many bags out of Philadelphia to other US Airways locations.

Fleet Service Staffing Levels Were Significantly Below Authorized Levels During the Holiday Period

Fleet service employees perform ramp duties such as catering, baggage-room duty, and loading and unloading of aircraft. According to management, Philadelphia was about 30 fleet service positions short at the beginning of the fall 2004 season. Furthermore, difficult and protracted labor negotiations, a 21 percent reduction in wages, and ongoing bankruptcy proceedings exacerbated this situation and led to high levels of attrition in the fleet service workforce. Consequently, US Airways’ Philadelphia ramp and baggage operations were suffering from significant personnel shortages at the start of the holiday period.

Table 2 shows the degree of fleet service employee shortages US Airways experienced over the holiday period in Philadelphia. For example, on December 25th, US Airways had 631 employees scheduled to work, or 81 percent of their authorized staffing level of 775. However, after accounting for all absences, including sick/family leave calls, and adding in overtime shifts, their actual staffing level was only 483—62 percent (or 292 positions short) of the authorized staffing level.

Table 2. Philadelphia Fleet Service Staffing (December 22 – 28, 2004)

Fleet Service^{a/}	12/22	12/23	12/24	12/25	12/26	12/27	12/28
Authorized	760	775	780	775	790	760	750
Scheduled	699	694	699	631	617	670	688
<i>Scheduled/Authorized</i>	92%	90%	90%	81%	78%	88%	92%
Actual	678	597	518	483	470	545	615
<i>Actual/Authorized</i>	89%	77%	66%	62%	59%	72%	82%
Shortage	-82	-178	-262	-292	-320	-215	-135

a/ “Authorized” staffing is US Airways’ budgeted headcount for Philadelphia. This is the number of employees that US Airways believes is needed to operate the station based on scheduled flight activity. “Scheduled” is the number of employees the carrier has physically available. “Actual” staffing is the number of employees working after subtracting sick calls, medical leave, and other reasons for absence and adding in any overtime shifts that were awarded to cover the absences. “Shortage” is the difference between the authorized and actual levels.

Source: OIG analysis of US Airways data.

Management's Plan To Cover Staffing Shortfalls Depended Heavily on the Use of Overtime

Management's contingency plan for the holiday period relied heavily on employees working large amounts of overtime. Recognizing existing staffing shortages, additional managers were brought in from other cities, and local managers notified vendors who provide ticket checkers, baggage runners, and skycaps to have additional coverage available.

In addition, management decided to limit catering in Philadelphia by having other stations outside Philadelphia cater aircraft, which enabled the carrier to reassign 22 catering agents to cover ramp vacancies. Even with these actions, however, management had to rely heavily on large numbers of employees working overtime. As an incentive, US Airways offered chances to win items, such as personal computers and football tickets, to employees with perfect attendance during the holidays. Managers indicated that a similar plan had worked over the 2004 Thanksgiving holiday period.

Higher Than Expected Sick Calls and Refusals To Work Overtime Prevented the Plan from Working

Poor weather (high winds and low ceilings) led to some delays and cancellations at Philadelphia early in the holiday period. According to US Airways managers, on the afternoon of December 23rd, 15 flights destined for Philadelphia were forced to divert to other cities due to air traffic and weather conditions.¹² The delays continued to mount throughout the afternoon and evening as those diverted flights finally arrived in Philadelphia.

According to US Airways managers we spoke with at Philadelphia, by 10:00 p.m. operations were in a state of gridlock. With additional flights arriving later in the evening and facing a shift change at 11:00 p.m., managers began offering more overtime, but few employees accepted. Managers told us that they then began invoking mandatory overtime, but most employees either refused to work additional hours or went home sick.

Throughout the rest of the holiday period, US Airways continued to face difficulties in maintaining adequate fleet service staffing at Philadelphia. According to US Airways management, unscheduled absences due to sick calls or other reasons rose to levels that were far greater than those experienced over Thanksgiving. For example, on Thanksgiving Day, 62 fleet service employees in Philadelphia called in on sick/family leave. But on December 25th, 159 fleet

¹² US Airways subsequently adjusted the number of diverted flights to 12 in data reported to the Bureau of Transportation Statistics.

service employees in Philadelphia called in on sick/family leave, more than double the number on Thanksgiving. US Airways was unable to provide sick call data for 2003, so we could not determine if holiday sick calls were higher than last year. Actual overtime takers were also far less than needed. For example, fleet service employees worked only 45 overtime shifts on December 25th, when the carrier needed over 300 to reach authorized levels.

From December 23rd through December 28th, eight flights departed for cities (including Boston and Chicago) with no bags on board because there were not enough personnel to load them. According to US Airways, the backlog of baggage could only be cleared by moving it out of Philadelphia on trucks and special ferry flights loaded with nothing but baggage.

Union officials we spoke with told us that they believe the service disruptions were a symptom of chronic understaffing and high management turnover. According to US Airways, the station manager, the director of ramp services, and the director of administration all had less than 6 months experience at Philadelphia, and about 40 percent of the ramp service managers had been at the station for less than a year. Union officials also told us that the carrier had been using mandatory overtime since March 2004. They also stated that they do not believe there was any type of coordinated job action and that many employees simply decided to spend Christmas with their families, given the uncertainty surrounding the company.

US Airways Is Actively Recruiting To Fill Fleet Service Vacancies

According to US Airways management, since the beginning of January 2005, they have taken actions to hire fleet service personnel. Managers told us that they have made offers to 269 individuals and that 110 have already accepted positions as fleet service personnel at Philadelphia. According to airline officials, the recent hiring was a result of a redesigned process for recruiting and higher starting wages for fleet service employees in the Philadelphia area (from \$7.17 per hour to \$9.59 per hour).

Management Plans To Meet the Increased Holiday Flight Schedule With Fewer Flight Attendants Were Not Sufficient To Prevent the Shortages That Occurred

US Airways has attributed a portion of the December 2004 holiday travel disruptions to a high number of sick calls, most notably from its flight attendants. Our analysis, however, found that while the flight attendant sick call rate was higher during the 2004 holiday travel period than the monthly average for December, it was no higher than, and in some crew bases *less* than, the sick call rate during the holidays in 2003 (see Table 3).

Table 3. Systemwide Flight Attendant Supply and Sick Calls During the Holiday Travel Period, 2003 and 2004

Date	2003			2004		
	Supply	Sick Calls	Sick Call %	Supply	Sick Calls	Sick Call %
Dec 22	1,291	248	19	1,207	179	15
Dec 23	1,145	220	19	1,109	237	21
Dec 24	945	235	25	870	215	25
Dec 25	1,057	264	25	1,099	268	24
Dec 26	1,185	235	20	1,169	277	24
Dec 27	979	227	23	1,317	302	23
Dec 28	1,164	271	23	1,258	272	22
	Average %		22	Average %		22

Source: OIG analysis of US Airways data. Does not include international flight attendants.

During the holiday travel period for 2004, US Airways increased its systemwide scheduled departures by 12 percent compared to 2003. However, for the same period, the number of flight attendants decreased from 4,745 to 4,518—a drop of 5 percent. This resulted in a lower base of scheduled flight attendants and on-call reserves.¹³ The combination resulted in an insufficient “cushion” of reserves available to cover unforeseen staff unavailability, such as sick calls and crews reaching hours-of-duty limits. Under normal travel conditions, the December 2004 flight attendant staff level may have been sufficient to maintain scheduled holiday service. But rarely are holiday travel conditions “normal.” Traffic volumes are higher, the potential exists for winter weather-related delays, and there are higher rates of employee vacation and sick leave.

Management Actions To Address Known Staffing Shortfalls Fell Short of Goals

Management at US Airways knew well in advance that their flight attendant staffing levels were not sufficient to cover the December schedule and acknowledged in a memo to employees that “staffing levels would be at a deficit in some domiciles.” For the month of December, the airline’s staffing numbers showed a systemwide deficit of available flight attendant hours as compared to the flight schedule demand.

¹³ Scheduled flight attendants, called “line-holders,” receive an actual schedule for the month based on a trip-bidding process. Reserves are flight attendants who are not actively scheduled for work but identify days they are “on-call” in the event a line-holder is unable to fulfill his or her scheduled trip or to cover open slots in the schedule.

According to airline data, the month of December had a shortage of 3,481 hours, or the equivalent of about 43 flight attendants. For this reason, the airline announced on November 24th that it was requiring all flight attendants to increase their monthly flying obligation by 5 hours. However, this did not materialize.

Neither US Airways nor the Association of Flight Attendants could explain why the flight attendants (on average) did not increase their schedules by 5 hours in December. Instead of the 84 hours the airline hoped each flight attendant would obligate in December, the actual system average was 79.2 hours, which is the normal monthly average for flight attendants. Because the requirement to fly an additional 5 hours was announced well after the initial scheduling process was over, the flight attendants were given responsibility for adding those hours as they modified their trips for the month.¹⁴

However, US Airways managers did not monitor the flight attendant schedules throughout the month to determine whether flight attendants were, in fact, bidding on schedules that would result in adding an extra 5 hours. By the middle of December, managers should have been able to tell, based on hours flown to date, whether or not overall staff hour levels were increasing. US Airways contends that if the flight attendants had complied with the 5-hour requirement, additional attendants would have been available on the 24th and 25th, and the service disruptions would not have been as severe. Instead, shortages manifested themselves in the critical holiday travel period, resulting in hundreds of cancellations and thousands of inconvenienced passengers.

The airline also instituted an incentive program to reduce sick calls and encourage voluntary overtime, but it was not sufficient to increase the number of flight attendants available for work over the holiday travel period. Incentives included receiving two space-positive passes (reserved seats) for use by the employee and their travel eligible participants if the employee had no absences between November 18, 2004 and January 5, 2005. Another incentive offered a lottery for a variety of prizes, including travel on another airline and laptop computers. However, the incentives did not have the effect that management hoped.

US Airways' management also anticipated that a significant number of furloughed flight attendants would return to work. According to US Airways, there were 3,487 flight attendants on furlough as a result of cutbacks and two reorganizations before December 1, 2004. Of those, 341 had a right to return to work on December 2, 2004, by giving notice of their intent to return by September 12, 2004. However, only 229 actually returned, and most of those needed refresher training courses and were not available for work during the holiday period.

¹⁴ Flight attendants at US Airways can modify their bid schedules throughout the month and up to 24 hours before a scheduled tour begins.

As a result of the decreased staffing levels, there were thinner margins of reserves to absorb unforeseen events, such as weather delays, crew duty-hour limits, and illnesses. On December 24th and 25th, these margins proved too thin to enable US Airways to meet scheduled demand.

For example, on December 24th, there were 269 scheduled flight attendants and on-call reserves available in Philadelphia to cover the projected demand for 235 flight attendants (see Table 4). This left a “cushion” of 34 reserves that was insufficient to cover the 53 sick calls that day, resulting in a string of canceled flights. In December 2003, US Airways reserve margins were deeper and allowed the airline to sustain its schedule, despite similar rates of sick calls. For example, on December 24th, 2003, there was a cushion of 112 reserves.

Table 4. Philadelphia Flight Attendant Scheduling for the Holiday Period, 2004 vs. 2003

December	Philadelphia 2004							Philadelphia 2003						
	22	23	24	25	26	27	28	22	23	24	25	26	27	28
Flight Attendants Scheduled	174	132	87	107	118	186	171	190	137	68	85	169	194	178
Scheduled Reserves	177	196	182	226	210	210	199	229	229	229	245	194	162	176
System Total Supply	351	328	269	333	328	396	370	419	366	297	330	363	356	354
System Demand	252	246	235	253	125	270	230	199	238	185	236	246	230	205
System Variance	99	82	34	80	203	126	140	220	128	112	94	117	126	149
Sick Calls	57	57	53	73	76	81	76	92	74	72	77	66	80	94
Actual Variance	42	25	-19	7	127	45	64	128	54	40	17	51	46	55

Source: OIG analysis of US Airways data

According to US Airways, the most recent collective bargaining agreement with the Association of Flight Attendants allows the airline to increase the monthly flying obligation of flight attendants by 5 to 10 hours for any domicile. However, with the airline in bankruptcy, increasing their flight operations, decreasing pay, and asking flight attendants to work additional hours, we have no way to determine whether those actions will prevent a similar situation from occurring in the future.

Customer Service

US Airways' December 2004 holiday period delays, cancellations, and baggage problems affected over 560,000 passengers systemwide. These travel disruptions triggered clauses in the airline's Customer Service Plan for notifying and accommodating the flying public, such as notifying passengers of delays and cancellations, and ticket refund policies. On January 7, 2005, we requested information from US Airways regarding its actions to fulfill its customer service commitments during the holiday period. The information requested included specific details on:

- the number of passengers affected by city,
- the number of customers rerouted to other airlines,
- how customers were notified of delays and cancellations,
- the number of passengers denied boarding,
- the number of delayed or misrouted checked bags,
- how unaccompanied minor and customers with a disability were accommodated,
- the number of reservations that were changed without penalty, and
- numerous other questions regarding the airlines' actions to meet its customer service commitments.

US Airways provided partial responses to our request on January 27, 2005, but the data were incomplete and many responses were simply based on the opinion of the airlines' management. We asked for additional data, including timelines and actual dollars refunded. Between February 1 and February 4, 2005, US Airways provided some additional summary information, such as the number of hotel, transportation, and meal vouchers provided; call volume statistics; and timelines for processing refunds. They also provided additional information on February 22, 2005, regarding the number of passengers affected by flight delays, baggage claims, and special needs passengers.

US Airways management told us that they provided services in accordance with their commitments for denied boarding compensation; rebooking; ticket refunds; lodging, meals, and transportation for overnight delays; reimbursement for rental cars, trains, and hotels; compensation for expenses related to mishandled baggage; and passenger notification of delays and cancellations. US Airways also stated that exceptions were made to normal policies and amenities were provided to

customers for situations outside the carrier’s control, such as weather. Table 5 contains a summary of customer support actions that the airline states were provided to customers affected by the holiday service disruption.

Table 5. Customer Support Provided by US Airways for Holiday Travel Disruptions (Systemwide)

Items	Number Provided
Free Roundtrip Vouchers	453
Discounted Travel Vouchers	9,816
Hotel Vouchers	7,377
Reimbursement Checks for Hotels, Ground Transportation, and Lost Baggage	738
Ground Transportation Vouchers	3,815
Meal Vouchers	11,874

Source: US Airways

Customer Complaints. According to US Airways, customers were notified about cancellations and delays through an automated system that reaches customers via telephone numbers entered in passengers’ reservation records. A recorded message informed the passenger of what was happening with the flight and what to do if the flight had been canceled. If the automated attempt failed, a US Airways representative called customers directly. If customers were already en route, electronic monitors and agents at the airport informed customers of delays or cancellations. In addition, customers could access flight information data through the airline’s website.

US Airways maintains that airline representatives tried to treat customers fairly and in a manner consistent with their service commitments. They indicated that customers had the opportunity to change or cancel flights without penalty no matter what the reason and were provided full refunds or vouchers for future travel. The airline also stated that it is reimbursing customers for rental cars, hotels, train tickets, and items purchased as a result of mishandled bags.

However, US Airways readily acknowledges that many passengers were unhappy with the service they received during the 2004 holiday travel period. US Airways received approximately 7,000 customer complaints related to travel from December 22nd through 28th. This was up about 200 percent over the same period in 2003. US Airways acknowledged that 52 percent of these complaints were related to flight delays and cancellations, 39 percent were baggage related, and 9 percent were miscellaneous other items such as onboard issues, reservations accessibility, and airport complaints.

US Airways also experienced a high volume of calls at its reservations and service centers during the holiday period, resulting in many calls being abandoned or dropped. For example, on December 24th, 88,197 calls were made to service areas but the airline only handled 39,388 of those calls, which means that 55 percent of the calls were never answered. As shown in Table 6, during the holiday period, an average of 43 percent of calls made were not answered.

Table 6. US Airways Reservations Call Volume and Service Statistics 2004

Date	Calls Placed	Calls Handled	Percent Not Handled
Dec 22	80,108	63,847	19%
Dec 23	93,018	53,930	41%
Dec 24	88,197	39,388	55%
Dec 25	71,873	20,628	71%
Dec 26	85,575	39,392	54%
Dec 27	100,075	65,878	33%
Dec 28	88,265	65,356	25%
Total/Average %	607,111	348,419	43%

Source: US Airways

Our hotline logged about 1,100 complaints regarding US Airways' holiday service disruptions. While many complaints we received covered more than one customer service issue, the largest number of complaints concerned delays and cancellations (726), followed by baggage (574), and customer service (181). Many of the complaints regarding delays and cancellations were concerned with the lack of accuracy or timeliness of information provided by US Airways.

Special Needs Passengers. US Airways provided us with the number of passenger assistance requests¹⁵ for unaccompanied minors but was unable to provide us with the number of unaccompanied minors affected by the service disruptions. US Airways maintains that parents of unaccompanied minors were contacted concerning delays or other flight irregularities. However, US Airways also provided us with information showing that the airline received 26 complaints regarding unaccompanied minors where parents were not contacted in a timely manner or minors were left unattended. The airline also maintained that it complied with all laws and regulations in terms of special accommodations for individuals with a disability, but we received a number of complaints concerning the lack of adequate accommodations for special needs passengers.

¹⁵ Requests made up to 2 days in advance of a scheduled flight.

Baggage. Based on data provided by the airline, there were nearly 72,000 baggage claims for pilfered, lost, damaged, and delayed bags during the holiday period. According to US Airways, it is not able to determine the total number of checked bags that did not arrive with the passenger because numerous passengers who arrived at their destination without their bags did not file claims. US Airways flew 8 ferry flights between Philadelphia and Charlotte and 1 between Philadelphia and Pittsburgh beginning on December 24th and continuing through December 27th carrying a total of 4,242 bags. Also starting December 26th, US Airways chartered 10 trucks to carry 5,588 bags from Philadelphia to either Pittsburgh or Charlotte to deliver mishandled baggage. The air carrier stated that it did not meet its goal to return mishandled baggage within 24 hours. US Airways did not provide statistics on when baggage was returned, but as of January 27th, US Airways had 428 bags from the holiday period that remained unclaimed, generally because those bags were without valid passenger information.

Refunds and Other Compensation. According to US Airways, as of February 4, 2005, refunds had been processed for 12,160 customers who were scheduled to travel during the holiday period. Documentation provided by the airline shows that all but 118 of the 12,160 refunds were processed within the customer service commitment timeframe.¹⁶ Our hotline received numerous complaints from customers stating they had not received their refunds.

¹⁶ 7 business days for credit card sales and 20 business days for cash purchases.

EXHIBIT. SCOPE AND METHODOLOGY

In a memorandum dated December 27, 2004, the Secretary of Transportation requested that the Office of Inspector General join with the Department's Office of Aviation and International Affairs and Office of General Counsel to investigate travel disruptions experienced over the December 2004 holiday travel period by two air carriers—Comair and US Airways.

The scope of our review concentrated on Comair and US Airways operations between December 22 and December 28, 2004. For comparison purposes, we also looked at operational data during the same period in 2003. We interviewed carrier officials and discussed various systems, procedures, operations, and practices at both Comair and US Airways, including crew scheduling, crew tracking, and customer service functions. We did not attempt to determine how disruptions occurring at Comair and US Airways during the 2004 holiday travel period compared to other carriers' experiences during this or other time periods.

Our review was conducted between December 27, 2004, and February 22, 2005, by staff from three OIG regional offices (Seattle, San Francisco, and Atlanta) and Headquarters. We relied on data from several sources. We used statistics collected and reported by agencies within the Department of Transportation (DOT); data collected by the airlines and supplied to us directly; and data from other industry sources, including airline contractors, airports, labor unions, and the National Weather Service. We also collected information directly from consumers through an OIG hotline established specifically to collect comments on travel experiences during the December 2004 holiday travel period.

DOT-Generated Data

Data represented graphically in the report and attributed to DOT sources were collected from the FAA and the Bureau of Transportation Statistics (BTS).

- Flight Schedule Data System. A database of published airline flight schedules. Scope: worldwide, 1995 through January 2005.
- Aviation System Performance Metrics. A database of FAA air traffic control performance measures, including delays, cancellations, operations, and causes for delays. Scope: 55 major airports across the country and all en route control centers, 1998 through December 2004.
- Airline On-Time Statistics and Delay Causes. A BTS database tracking the performance of domestic flights operated by large air carriers.

During the course of this review, we did not systematically audit or validate the data contained in any of the databases. However, in prior work, we conducted trend analyses and sporadic checks of the data to assess reasonableness and comprehensiveness. We also held discussions with managers responsible for maintaining the databases to understand and attempt to resolve any noted inconsistencies. We did not perform sufficient tests to draw conclusions or form an opinion on the completeness or accuracy of the data sources.

Comair

We discussed weather, computer, and customer service problems with (1) senior Comair and Delta Airlines management; (2) other Comair staff who dealt directly with the problems, such as ramp agents, gate agents, and child care staff; (3) personnel for the contractor who installed Comair's crew scheduling and tracking system; and (4) representatives of the Cincinnati Airport.

We also reviewed and performed limited tests of a wide array of Comair-supplied data and documentation related to the events of December 22nd through 28th. These data included weather activity at the airport, inventories and usage information for glycol, actions taken to restore crew scheduling and tracking, and what Comair and Delta did to meet customer service commitments during the period of service disruption. In addition, we toured Comair facilities at the Cincinnati Airport to obtain a perspective on conditions during the 7-day period.

To assess what Comair and Delta did to meet customer service commitments during the service disruptions, we reviewed information regarding how many customers were affected by cancellations and delays, how customers were notified of cancellations and delays, the magnitude and timeliness of ticket refunds, what was done to accommodate disabled and special needs customers, efforts taken to resolve problems with mishandled baggage, and actions taken to respond to customer complaints.

We discussed the computer system used to schedule and track flight crews with Comair management and information technology staff, as well as staff for the contractor who leases the system to Comair. More specifically, we determined what caused the system to shutdown on December 24th, how Comair's manual back-up system performed, and what actions Comair and its contractor took to restore the computer system and ensure problems do not reoccur before a new system is implemented in mid-2005.

US Airways

We met with representatives from US Airways management and labor groups; reviewed staffing, scheduling, and daily work and sick-call records; and analyzed historical patterns of staffing and sick calls on flight-attendant availability. We were not able to review historical staffing and sick-call rates for baggage handling operations because managers told us that the employee-tracking system had been changed in the past year, and prior year data were not available.

We reviewed contingency plans developed by management to address staffing shortages during the holiday travel period and determined the relative success and shortcomings of these plans. We discussed customer service issues with US Airways management and requested data to support statements made by managers regarding the airline's contention that it met its service commitments. US Airways was unable to provide some of these data, such as a detailed timetable on returning baggage, and the number of unaccompanied minors and special needs passengers affected. We did not attempt to validate the data that US Airways was able to provide.

We conducted fieldwork at US Airways' Operations Control Center, in Pittsburgh, PA; their airport operations in Philadelphia, PA; and their headquarters office in Crystal City, VA. We also met with airport and FAA officials in Philadelphia and toured the Philadelphia ramp and baggage operations. Our work analyzing service disruptions at US Airways' Philadelphia hub was delayed until late January in response to the airline's request that we not conduct any on-site work at the airport before then-ongoing labor contract ratifications were complete.