# FAA Runway Safety Report

**Runway Incursion Trends and Initiatives at Towered Airports in the United States, FY 2000 – FY 2003**

**August 2004**

# Preface

**THE 2004 RUNWAY SAFETY REPORT**[1] presents an assessment of runway safety in the United States for fiscal years FY 2000 through FY 2003. The report also highlights runway safety initiatives intended to reduce the severity, number, and rate of runway incursions. Both current progress and historical data regarding the reduction of runway incursions can be found on the Federal Aviation Administration's (FAA) web site (http://www.faa.gov).

Effective February 8, 2004, the FAA implemented an organizational change that created an Air Traffic Organization (ATO) in addition to its Regulatory functions. Safety Services, within the ATO, has assumed the responsibilities of the former Office of Runway Safety. Therefore, this FAA Runway Safety Report, which covers a period prior to the implementation of the ATO, is the last in a series of reports that exclusively presents information on runway safety. Safety performance will be an integral part of future ATO products.

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[1] *A glossary of terms and a list of acronyms used in this report are provided in Appendix A.*

# Executive Summary

**REDUCING THE RISKS OF RUNWAY INCURSIONS AND RUNWAY COLLISIONS** is a top priority of the Federal Aviation Administration (FAA). Runway safety management is a dynamic process that involves measuring runway incursions as well as understanding the factors that contribute to runway collision risks and taking actions to reduce these risks. Runway incursion severity ratings (Categories A through D) indicate the potential for a collision or the margin of safety associated with an event. The FAA aims to reduce the severity, number, and rate of runway incursions through the mitigation of the errors that contribute to collision risks.

- During fiscal years (FY) 2000 through FY 2003, there were approximately 262 million takeoffs and landings at as many as 490 FAA/contract towered airports in the United States—about 180,000 operations per day. Of these 262 million aircraft operations, there were 1,475 runway incursions—an average of one runway incursion per day during the four-year period. (See Page 16.)

- There was an overall downward trend in the number and rate of runway incursions, but this decrease leveled off from FY 2002 to FY 2003. In FY 2002 and FY 2003, the rate of runway incursions was less than one event per day. However, the FAA projects an increase in the number of operations over the next decade that will increase safety management challenges. The runway incursion rate must continue to be reduced to meet the FAA's runway safety management objectives. (See Page 17.)

- The FAA is making progress toward its goal of reducing the annual number of Category A and B runway incursions to no more than 27 by FY 2008. The number of Category A and B runway incursions decreased by 52 percent—to 32 incursions in FY 2003. Over the four-year period, the rate of Category A and B events decreased by 48 percent. The downward trend in the number and rate of incursions appeared to flatten in FY 2003. As the number and rate of Category A and B incursions reach single-digit values for specific segments of the risk (for example, operational errors/deviations, pilot deviations, and vehicle/pedestrian deviations), the FAA will need more sophisticated metrics to measure risk and track progress. (See Page 19.)

- Although reduced, the potential for a collision remains; seven runway incursions resulted in collisions during the four-year period. In March 2000, one collision resulted in four fatalities. (See Page 19.)

■ Pilot deviations were the most common (57 percent) type of runway incursion. However, the number, rate, and severity of pilot deviations continuously decreased over the four-year period. The number and rate of total operational errors/deviations showed no consistent decrease during this period. In particular, there was an increase from FY 2002 through FY 2003. This increase was predominantly driven by an increase in operational errors/deviations at large-volume airports that primarily handle commercial aircraft operations. However, the number of Category A and B operational errors/deviations decreased by more than 50 percent during this period. Lastly, the number and rate of total vehicle/pedestrian deviations have been trending downward since FY 2001. However, with such small numbers (in FY 2000 there were seven Category A and B vehicle/pedestrian deviations and in FY 2003 there were nine) it is difficult to discern the significance of small variations. (See Pages 21, 23, and 26.)

■ The total number and rate of runway incursions involving commercial aviation aircraft showed no consistent trend over the four fiscal years. However, the number of Category A and B runway incursions involving two commercial aviation aircraft (COMM/COMM) decreased significantly during this period. (See Page 30.)

■ Fifty percent of the runway incursions at the FAA Operational Evolution Plan (OEP)-35 airports were attributed to pilot deviations, which is slightly below the national distribution (57 percent). Operational errors/deviations represented 32 percent of the incursions at the OEP-35 airports which is a greater proportion compared to the trend for airports nationwide (23 percent). Lastly, vehicle/pedestrian deviations represented 18 percent of the runway incursions at the OEP-35 airports, which is in proportion to the national distribution (20 percent). (See Page 35.)

- Over the four fiscal years, 75 percent (1,112 incursions) of the 1,475 runway incursions and 66 percent of the 189 Category A and B incursions involved at least one general aviation aircraft. Although the number and rate of pilot deviations involving general aviation aircraft have decreased since FY 2001, general aviation aircraft were involved in the majority of Category A and B pilot deviations during the four-year period. (See Pages 41 and 42.)

- The General Aviation (GA)-35 airports reported a greater proportion of pilot deviations—64 percent of the runway incursions compared to the trend for airports nationwide (57 percent). The number and rate of pilot deviations at the GA-35 airports consistently decreased during the four-year period, reflecting the national and OEP-35 airport trends. (See Page 47.)

The FAA will continue its efforts to identify and respond to risks on the runway through analysis of runway incursion trends and the errors that lead to runway incursions. Some of the current runway safety metrics are reaching low levels—for example, there were zero Category A COMM/COMM incursions the past two fiscal years—and more sophisticated measures are needed to identify risks, track progress, and reliably measure the impact of runway safety initiatives. The FAA is implementing proactive approaches (such as a safety management system) to anticipate emerging risks and achieve maximum benefit from changes in infrastructure, procedures, and technologies.

# Introduction

**THE UNITED STATES NATIONAL AIRSPACE SYSTEM** (NAS) has as many as 490 FAA/contract towered airports that handle over 180,000 aircraft operations—takeoffs and landings—a day, averaging approximately 67 million airport operations per year. Of the approximately 268 million operations at United States towered airports from FY 2000 through FY 2003, there were 1,475 runway incursions. That is, approximately 5.6 runway incursions for every one million operations and less than one severe (Category A or Category B) runway incursion for every one million operations. Seven of the 1,475 incursions resulted in collisions on the runway. One of these collisions, in March 2000, involved four fatalities. Of the 490 towered airports, 308 airports reported at least one runway incursion during this four-year period.

To operate safely and efficiently, the NAS relies on clear communication and smooth coordination among more than 15,000 air traffic controllers, over 600,000 pilots, and a variety of airport vehicle operators[2]. This shared responsibility is reinforced by a system of "checks and balances" that includes the following:

- Operational procedures, such as pilot readbacks of controller clearances;

- Airport infrastructure, such as signs, pavement markings, and surface surveillance systems; and

- Air traffic management, such as the coordination between ground and local control.

This intricate web of people, procedures, infrastructure, and technology enables the NAS to be both the busiest and the safest air traffic management system in the world.

To understand historical runway incursion trends—and anticipate and mitigate emerging runway safety risks—this report examines runway safety from both a quantitative and qualitative perspective. This approach will help guide the implementation of technologies and procedures that enhance runway safety and improve airport efficiency in response to industry demands. This report discusses runway safety trends from FY 2000 through FY 2003 and expands on the analyses presented in previous FAA Runway Safety reports.

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[2] There is the potential for as many as one thousand vehicle operators to be working at a single large airport.

# Background

**ONE OF THE FAA'S TOP PRIORITIES** is to reduce runway incursions and runway collision risk. It is important to analyze runway incursions to fully understand the risk of a collision on the runway and the factors that may contribute to—or help prevent—runway incursions. In particular, runway incursion severity indicates the potential for a collision or the margin of safety. The severity rating considers factors such as the actions required to avoid a collision and the distance between an aircraft and the other aircraft or object. The FAA aims to reduce the severity, number, and rate of runway incursions by implementing initiatives directed at mitigating the errors that contribute to collision risks and increasing the error tolerance of airport operations through a combination of technology, infrastructure, procedures, and training interventions. As outlined in *FAA Flight Plan 2004–2008*, the FAA is supporting developmental concepts in airport design and surface movement procedures, such as the potential use of perimeter taxiways, in an effort to reduce the number of runway crossings and thereby reduce the risk of runway incursions. Other efforts address the errors committed by pilots, air traffic controllers, and airport-authorized vehicle operators and pedestrians.

Airports with air traffic control towers in the United States report the occurrence of operational incidents, which may take place in the runway environment or other airport movement areas. The FAA reviews all of these incidents, identifying a subset as runway incursions. A runway incursion, as defined by the FAA, is any occurrence in the airport runway environment involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of required separation with an aircraft taking off, intending to take off, landing, or intending to land. The FAA collects and analyzes reports of runway incursions to identify collision risks on the runway.

Traffic volume is commonly viewed as the principal factor that may influence the number of runway incursions. It is natural to assume that as the volume of traffic increases, the possibility for operational scenarios and opportunities for errors also increase; that is, each additional aircraft operation represents at least one more potential interaction with each existing aircraft on the airport surface.

**A runway incursion is any occurrence in the airport runway environment involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of required separation with an aircraft taking off, intending to take off, landing, or intending to land.**

**Figure 1**

*The Relationship Between Traffic Volume and the Number and Rate of Runway Incursions at Towered Airports in the United States (FY 2000 through FY 2003)*



*Airports ranked from left to right according to decreasing number of total operations*
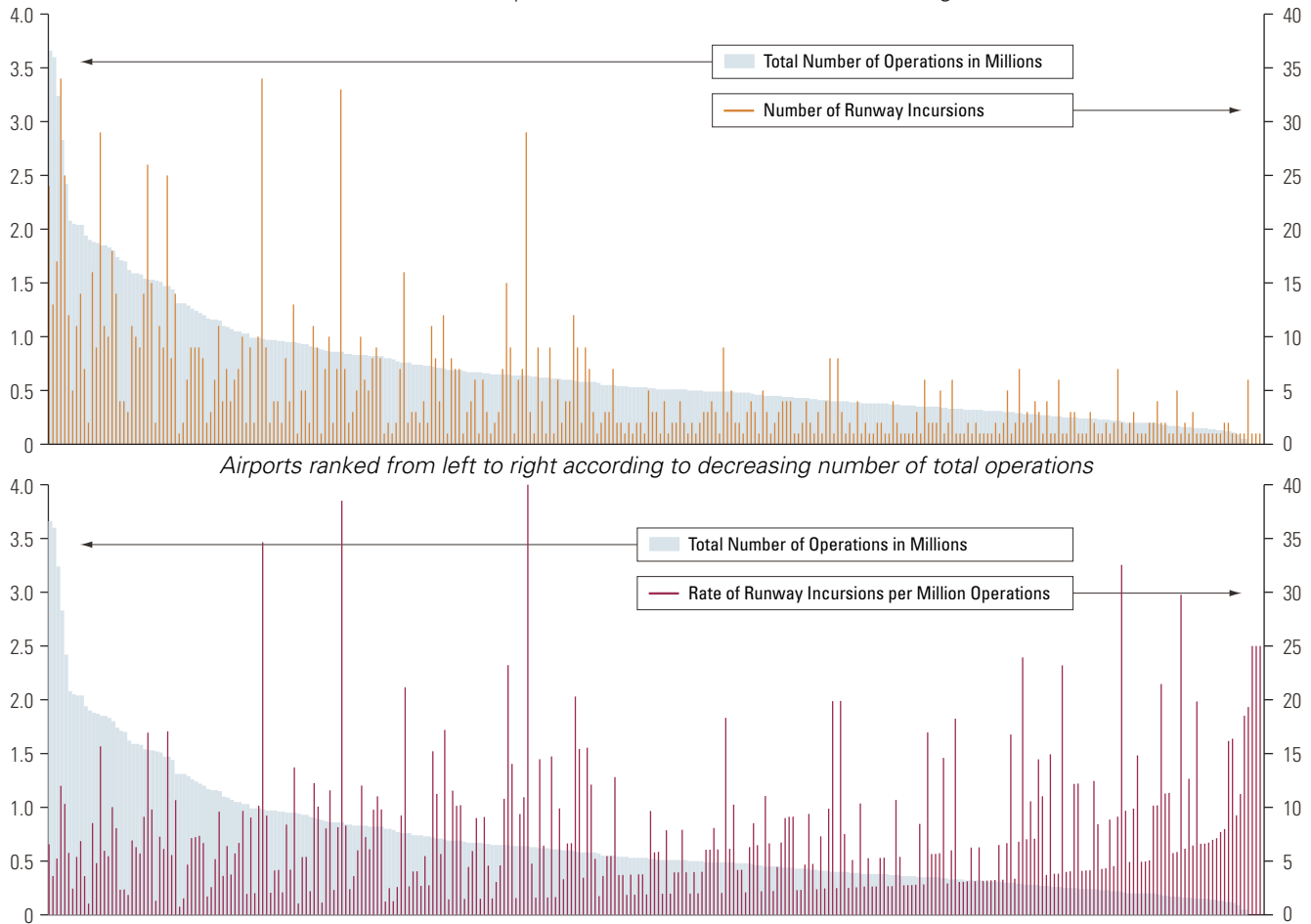
However, as shown in *Figure 1*, traffic volume is not the only factor contributing to runway incursion potential. Differences in the number of runway incursions at airports across the country are due to other factors in addition to traffic volume. Airport-specific factors—for example, infrastructure, procedures, operations, and environment—interact with traffic volume and influence the potential occurrence of different runway incursion scenarios by providing opportunities for, or defenses against, human errors. Further examination of runway incursions is necessary to illuminate how they are influenced by these factors and develop more sophisticated safety metrics that consider these characteristics.

FAA Runway Safety Reports published in 2001, 2002, and 2003 presented four-year trends for runway incursions in the United States. The 2004 Runway Safety Report presents an analysis of all runway incursions reported in the United States from FY 2000 through FY 2003 as well as a sample of the initiatives that have been implemented to address the risks identified. As the FAA relies on communication and coordination with its customers and expertise from various organizations within the FAA—such as Airports,

Air Traffic Services[3], and Flight Standards—this report also highlights the collaboration between the FAA and aviation community organizations. Trends and initiatives are presented with respect to the following:

- The number, rate, and severity of runway incursions in the NAS for the four-year period;

- Progress in reducing the number of Category A and B runway incursions; and

- The involvement of commercial aviation and general aviation operations in runway incursions.

## Runway Safety Metrics

The FAA uses three primary metrics to assess runway safety trends: the frequency of runway incursions, the severity of runway incursions, and the types of incidents. These metrics are used in this report to examine national trends and trends for specific aircraft operations and airports.

### Frequency of Occurrence

This report refers to both the number and rate of runway incursions to accurately present runway safety trends. The number of incursions provides a description of magnitude. Runway incursion rate describes how often events occur for a given number of operations. The rate also accounts for the different number of operations at each airport and serves as a basis for comparing runway safety trends among airports—for example, trends for the number of pilot deviations per million aircraft operations.

### Severity

The FAA reconstructs each runway incursion using the available information and plots the location of each event on airport diagrams to visualize the context. The FAA also uses this exercise to systematically categorize each runway incursion in terms of severity to determine the margin of safety associated with each event. Appendix B.1 contains a history of the FAA's runway incursion severity classification process. Appendix B.2 lists the factors considered in the severity ratings. From FY 2000 through FY 2003, only one runway incursion report did not contain enough information to support a reliable rating of severity. Appendix B.3 provides the date, location, and runway incursion type for this incident.

*Increasing Severity*

| Category D | Category C | Category B | Category A |
|---|---|---|---|
| Little or no chance of collision but meets the definition of a runway incursion | Separation decreases but there is ample time and distance to avoid a potential collision | Separation decreases and there is a significant potential for collision | Separation decreases and participants take extreme action to narrowly avoid a collision, or the event results in a collision |

[3] Air Traffic Services is now incorporated into the FAA's new Air Traffic Organization.

Severity Categories A through D consider factors such as the proximity of one aircraft to another aircraft or a vehicle, the type and extent of any evasive action by those involved in the event, and the speed and performance characteristics of the aircraft involved. Aircraft involved in runway incursions are grouped into either commercial aviation operations or general aviation operations. Commercial aviation operations are defined as scheduled or chartered for-hire aircraft used to carry passengers or cargo. These aircraft are typically operated by airlines, air cargo, and charter services and include jet transport and commuter aircraft. General aviation operations encompass the full range of activity from student pilots to multi-hour, multi-rated pilots flying sophisticated aircraft for business or pleasure. This includes small general aviation aircraft, such as Cessna 152 or Piper Chero-kee, and large general aviation aircraft, such as Cessna Citation C550 or Gulfstream V.

## Types of Incidents

The FAA divides runway incursions into three error types: operational errors/deviations, pilot deviations, and vehicle/pedestrian deviations. Identification of a runway incursion as an operational error/deviation, a pilot deviation, or a vehicle/pedestrian deviation is not an indication of the cause of the runway incursion; it is a classification of an error type. These error types typically refer to the last event in a chain of controller, pilot, and/or vehicle operator actions that led to the runway incursion.

| | |
|---|---|
| **Operational Errors/ Deviations** | An operational error (OE) is an action of an air traffic controller (ATC) that results in: |
| | ■ Less than the required minimum separation between two or more aircraft, or between an aircraft and obstacles (e.g., vehicles, equipment, personnel on runways). |
| | ■ An aircraft landing or departing on a runway closed to aircraft. |
| | An operational deviation (OD) is an occurrence attributable to an element of the air traffic system in which applicable separation minima were maintained, but an aircraft, vehicle, equipment, or personnel encroached upon a landing area that was delegated to another position of operation without prior coordination and approval. |
| **Pilot Deviations** | A pilot deviation (PD) is an action of a pilot that violates any Federal Aviation Regulation. For example, a pilot fails to obey air traffic control instructions to not cross an active runway when following the authorized route to an airport gate. |
| **Vehicle/Pedestrian Deviations** | A vehicle or pedestrian deviation (V/PD) includes pedestrians, vehicles, or other objects interfering with aircraft operations by entering or moving on the movement area without authorization from air traffic control. |
| | NOTE: This runway incursion type includes mechanics taxiing aircraft for maintenance or gate re-positioning. |

**Identification of a runway incursion as an operational error/deviation, a pilot deviation, or a vehicle/ pedestrian deviation is not an indication of the cause of the runway incursion; it is a classification of an error type.**

**ECONOMIC FLUCTUATIONS HAVE AFFECTED OPERATIONS** at United States towered airports during the past four fiscal years. Cyclical downturns in the United States' economy—intensified by the events of September 11, 2001—contributed to changes in commercial aviation and general aviation operations at the nation's airports. From FY 2000 through FY 2002, commercial operations decreased. But from FY 2002 through FY 2003, a few primary hub airports, such as Chicago O'Hare International Airport and Hartsfield-Jackson Atlanta International Airport, contributed to an increase of 10,000 commercial operations in the NAS. During this same period, general aviation operations consistently decreased across the NAS (see *Figure 2*).

**Figure 2**

*Commercial Aviation and General Aviation Operations (FY 2000 through FY 2003)*
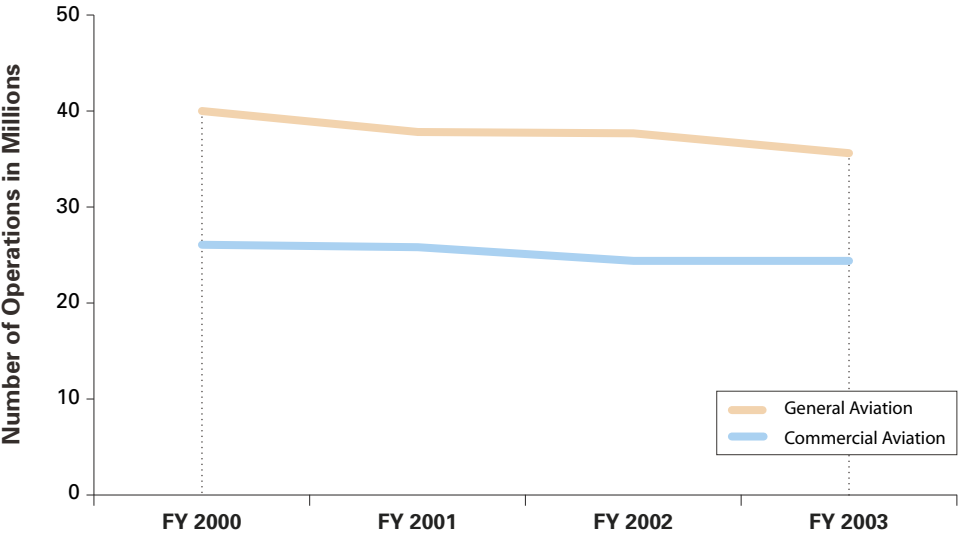


*Figure 3* presents the distribution of aircraft operations in the NAS and their involvement in runway incursions. General aviation accounted for the majority (57 percent) of NAS activity and was involved[4] in a disproportionate number (75 percent) of runway incursions. Commercial aviation accounted for 38 percent of NAS activity during this period. Military aviation accounted for the remaining 5 percent of aircraft operations.

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[4] *To emphasize the risk of an error rather than accountability for an error, the statistics in this report refer to aircraft as being "involved" in runway incursions and do not distinguish between the aircraft responsible for the deviation and the aircraft being incurred upon. Therefore, for the distribution of aircraft operations in runway incursions, an incursion that involved a commercial aircraft and a general aviation aircraft may be considered as both a commercial aviation runway incursion and as a general aviation runway incursion.*

**Figure 3**

*Comparison of Aircraft Operations in the NAS and Their Involvement in Runway Incursions*

| | FY 2000 through FY 2003 | |
| --- | --- | --- |
| | Percentage of NAS Aircraft Operations | Percentage of Type Involved in Runway Incursions |
| **Commercial Aviation** | 38% | 39% |
| **General Aviation** | 57% | 75% |
| **Military Aviation** | 5% | 3% |

## Frequency of Runway Incursions

*During the four-year period, there was progress in reducing the number and rate of runway incursions nationally. In the last fiscal year, however, progress has leveled off.*

From FY 2000 through FY 2003, United States towered airports reported 1,475 runway incursions—an average of one runway incursion per day. During this four-year period, there were over 262 million aircraft operations at the nation's towered airports—about 180,000 operations per day.

Of the 490 United States towered airports, 401 either had zero incursions or reported five or fewer runway incursions for the four-year period (see *Figure 4*). The three airports that had the greatest number of runway incursions during the period were Los Angeles International Airport, Fort Lauderdale Executive Airport, and North Las Vegas Airport. Airports with at least one runway incursion from FY 2000 through FY 2003 are listed in Appendix D of this report.

**Of the 490 United States towered airports, 401 either had zero incursions or reported five or fewer runway incursions for the four-year period.**

**Figure 4**
*Runway Incursions at FAA/Contract Towered Airports (FY 2000 through FY 2003)*

| Number of Runway Incursions | Number of FAA Towered Airports | Percentage of the Total Number of FAA Towered Airports |
| --- | --- | --- |
| 0 | 182 | 37% |
| 1–5 | 219 | 45% |
| 6–10 | 58 | 12% |
| 11–20 | 22 | 4% |
| 21–30 | 6 | 1% |
| 31–45 | 3 | 1% |

**Total Number of FAA Towered Airports: 490**

**Figure 5**

*Number and Rate of Runway Incursions (FY 2000 through FY 2003)*
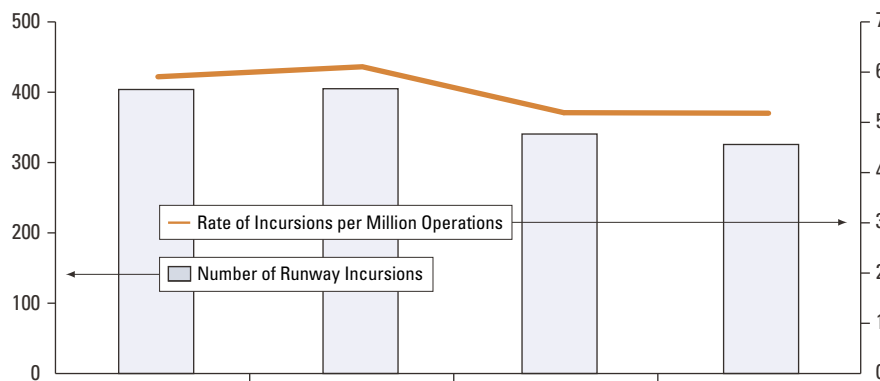


| | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| ▢ Number of Runway Incursions | 405 | 407 | 339 | 324 | **1,475** |
| ▬ Rate of Runway Incursions per Million Operations | 5.9 | 6.1 | 5.2 | 5.2 | **5.6** |
| **Total Number of Operations** | 68,685,741 | 66,188,785 | 64,876,846 | 62,768,238 | **262,519,610** |

NOTE: *Appendix D provides a listing of the number and rate of runway incursions for all U.S. towered airports that reported at least one runway incursion or surface incident for the four-year period.*

During this four-year period, a downward trend in the number and rate of runway incursions began in FY 2001. However, from FY 2002 through FY 2003, the number and rate of runway incursions across the United States appeared to level off (see *Figure 5*). Nationally, the number of aircraft operations has steadily decreased by about two million operations per year since FY 2000, with about six million fewer operations in FY 2003 than in FY 2000. Together, the downward trend in operations for the four-year period and the leveling off of the number and rate of runway incursions indicate that volume alone cannot predict runway incursion trends. Therefore, strategies that target airport-specific factors are also needed to achieve additional improvement. Such strategies will be required to counter the forecasted increase in the number of operations over the next decade.

**Together, the downward trend in operations for the four-year period and the leveling off of the number and rate of runway incursions indicate that volume alone cannot predict runway incursion trends.**

## Severity of Runway Incursions

*Progress was achieved in reducing the overall severity of runway incursions across the United States during this four-year period. Steady progress has been achieved in the consistent reduction of Category A and B incursions but the downward trend has appeared to flatten.*

Over the four-year period, the majority of runway incursions were Category C and D events—1,285 of the 1,475 runway incursions—that involved little or no risk of a collision. From FY 2002 through FY 2003, the number and rate of Category C and D events showed diverging trends (see *Figure 6*). Specifically, the number and rate of Category C runway incursions increased by 18 percent whereas the number and rate of Category D runway incursions decreased by 13 percent. These Category C and D runway incursions occurred at approximately 300 United States towered airports. Therefore, a NAS-wide risk mitigation strategy that targets pilots, controllers, and vehicle operators is needed to reduce the number of Category C and D runway incursions.

**Figure 6**

*Runway Incursion Severity Distribution (FY 2000 through FY 2003)*
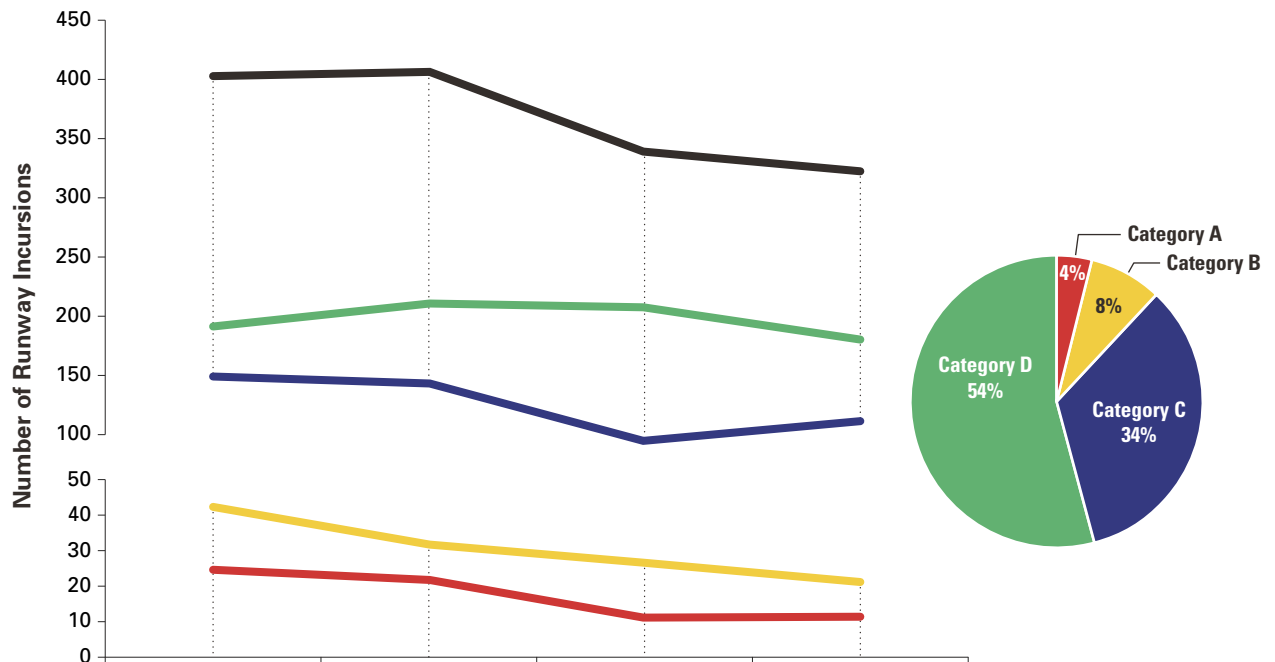


| | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| Category D | 190 | 2.8 | 210 | 3.2 | 208 | 3.2 | 181 | 2.9 | 789 | 3.0 |
| Category C | 148 | 2.2 | 143 | 2.2 | 94 | 1.4 | 111 | 1.8 | 496 | 1.9 |
| Category B | 43 | 0.6 | 33 | 0.5 | 27 | 0.4 | 22 | 0.4 | 125 | 0.5 |
| Category A | 24 | 0.3 | 20 | 0.3 | 10 | 0.2 | 10 | 0.2 | 64 | 0.2 |
| Insufficient Data | 0 | 0.0 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.0 |
| Total | 405 | 5.9 | 407 | 6.1 | 339 | 5.2 | 324 | 5.2 | 1,475 | 5.6 |

From FY 2000 through FY 2003, Category A and B events represented 12 percent (189 events) of all runway incursions. Seven Category A runway incursions resulted in collisions during the four-year period. One collision, in March 2000, resulted in four fatalities. Five collisions involved two general aviation aircraft and two collisions involved commercial aircraft and obstacles on closed runways. Appendix B.4 provides descriptions as well as the specific airports and dates of the collisions.

As presented in the *FAA Flight Plan 2004–2008*, the FAA's performance goal is to reduce the number of Category A and B runway incursions by a minimum of 48 percent, resulting in an average of no more than 27 Category A and B incursions per year by FY 2008. From FY 2000 through FY 2003, there has been a downward trend in the total number and rate of Category A and B runway incursions (see *Figure 7*). Specifically, 67 Category A and B events occurred in FY 2000 compared to 32 Category A and B events in FY 2003—a 52 percent decrease.

The downward trend in the number of Category A and B incursions appeared to flatten in the last fiscal year—a reduction of 16 incursions in FY 2002 compared to a reduction of five events in FY 2003 (see *Figure 7*). Similarly, the rate of Category A and B events decreased by 48 percent during the four-year period but also began to flatten in the last fiscal year. As the number of Category A and B incursions approaches single-digit values for specific segments of the risk (for example, operational errors/deviations, pilot deviations, and vehicle/pedestrian deviations), it will become necessary to identify new metrics to measure risk and track progress.

**Figure 7**

*Total Number of Category A and B Runway Incursions (FY 2000 through FY 2003)*



| All Events | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| Category B | 43 | 0.63 | 33 | 0.50 | 27 | 0.42 | 22 | 0.35 | 125 | 0.48 |
| Category A | 24 | 0.35 | 20 | 0.30 | 10 | 0.15 | 10 | 0.16 | 64 | 0.24 |
| Total | 67 | 0.98 | 53 | 0.80 | 37 | 0.57 | 32 | 0.51 | 189 | 0.72 |
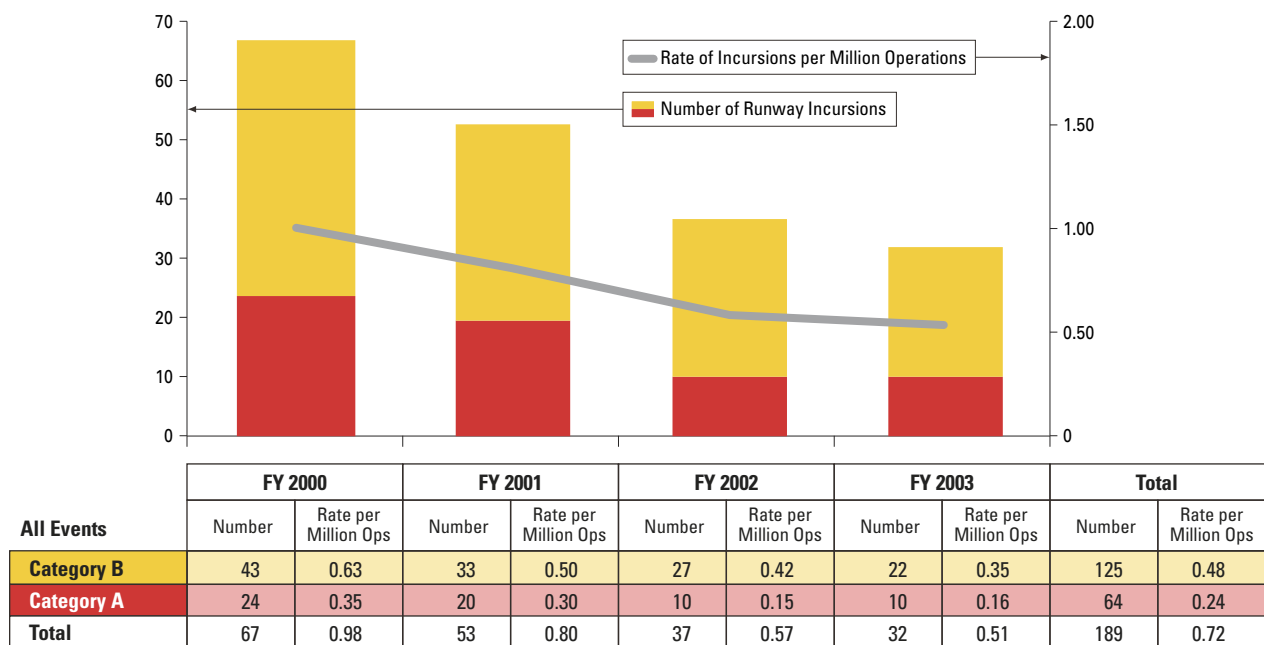
## Types of Runway Incursions

The identification of an error type for a runway incursion typically refers to the last event in a chain of controller, pilot, and/or vehicle operator actions that led to the collision hazard or loss of required separation with an aircraft taking off, intending to take off, landing, or intending to land. The following section highlights the four-year trends for each runway incursion type. In addition, the FAA explored the distribution of runway incursion types with respect to Category A and B runway incursions to better identify strategies to reach the Flight Plan performance goal.

### Operational Errors/Deviations

*The total number and rate of operational errors/deviations have fluctuated over the four-year period, indicating that additional effort is needed to address this type of runway incursion. However, there was progress in reducing the number of Category A and B operational errors/deviations.*

**Figure 8**

*Number and Rate of Runway Incursion Types (FY 2000 through FY 2003)*
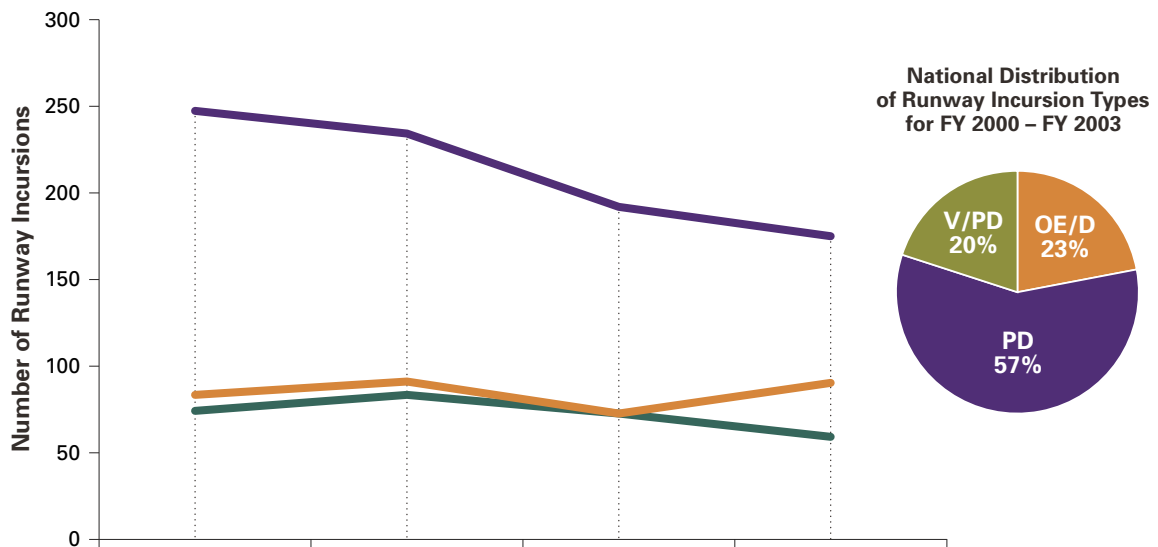


National Distribution of Runway Incursion Types for FY 2000 – FY 2003

V/PD 20%
OE/D 23%
PD 57%

| | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| **Pilot Deviations** | 247 | 3.6 | 233 | 3.5 | 191 | 2.9 | 174 | 2.8 | 845 | 3.2 |
| **Operational Errors/ Deviations** | 83 | 1.2 | 91 | 1.4 | 75 | 1.2 | 90 | 1.4 | 339 | 1.3 |
| **Vehicle/Pedestrian Deviations** | 75 | 1.1 | 83 | 1.3 | 73 | 1.1 | 60 | 1.0 | 291 | 1.1 |
| | | | | | | | | | 1,475 | 5.6 |

**Figure 9**

*Number and Severity of Operational Errors/Deviations (FY 2000 through FY 2003)*
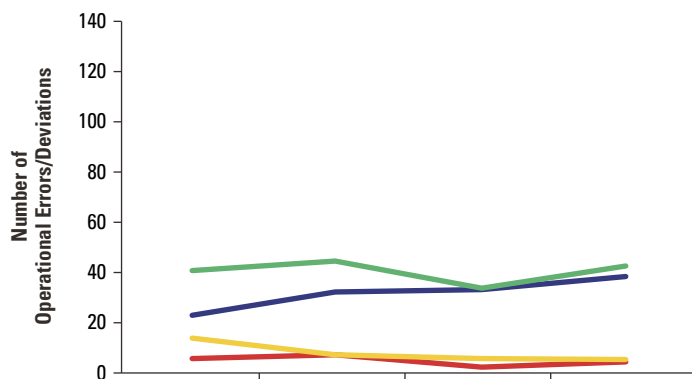


| | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total OE/D |
|---|---|---|---|---|---|
| Category D | 41 | 44 | 34 | 42 | **161** |
| Category C | 23 | 32 | 33 | 39 | **127** |
| Category B | 13 | 7 | 6 | 5 | **31** |
| Category A | 6 | 7 | 2 | 4 | **19** |
| Insufficient Data | 0 | 1 | 0 | 0 | **1** |
| **Total** | **83** | **91** | **75** | **90** | **339** |

From FY 2000 through FY 2003, operational errors/deviations accounted for 23 percent (339 events) of all runway incursions. The number and rate of operational errors/deviations fluctuated during this period (see *Figure 8*). In the last fiscal year of this period, there was a 20 percent increase in the number of operational errors/deviations, which was predominantly driven by an increase in operational errors/deviations at large-volume airports that primarily handle commercial aviation operations.

From FY 2000 through FY 2003, 26 percent (50 events) of Category A and B runway incursions were operational errors/deviations, which is in proportion to the national distribution of operational errors/deviations (23 percent). Although the total number of operational errors/deviations fluctuated and ended the period with no improvement (83 incursions in FY 2000 compared with 90 incursions in FY 2003), the number of Category A and B operational errors/deviations decreased by more than 50 percent during the same period (see *Figure 9*). This decrease was offset by an increase in the total number of Category C and D operational errors/deviations. The low base rate of Category A and B operational errors/deviations requires an evolution in safety metrics and strategies for continued progress.

**From FY 2000 through FY 2003, operational errors/ deviations accounted for 23 percent (339 events) of all runway incursions.**

**During the four-year period, 26 percent (50 events) of the Category A and B events were operational errors/deviations, which is in proportion to the distribution of operational errors/deviations nationally (23 percent).**

Strategies to reduce the overall number of operational errors/deviations will target the following most common controller errors identified by the FAA:

■ Controllers momentarily forget about an aircraft, vehicle, a previously issued clearance, or a runway closure;

■ Controllers and pilots or vehicle operators commit communication errors (e.g., readback or hearback errors);

■ Tower controllers fail to coordinate with each other in the handling of aircraft on the surface; and

■ Controllers misjudge aircraft separation.

In the near term, training was implemented to raise controllers' awareness of runway incursions and offer techniques to mitigate errors. In FY 2002, the FAA developed four computer-based instruction (CBI) refresher courses that enhance operational tower controller training. The FAA designed the four courses to teach strategies to tower controllers and supervisors for reducing operational errors/deviations and, in conjunction with the FAA Academy, distributed the courses to every tower in the United States. The four courses are outlined below.

■ Airport Lighting offers controllers a refresher course regarding obstruction lights, types and meanings of rotating beacons, physical characteristics of approach, runway and taxiway lighting, and proper operation of airport lighting.

■ Land and Hold Short Operations (LAHSO) educates controllers on the requirements to perform LAHSO. This includes verifying conditions for LAHSO, identifying eligible aircraft for LAHSO, issuing LAHSO clearances, and understanding rejected landing procedures for aircraft instructed to taxi beyond the hold short intersection.

■ Runway Use and Related Information instructs controllers on the proper methods for selecting and using runways and issuing safety alerts and advisories.

■ Runway Separation Minima offers a refresher course to local controllers for basic local control phraseology, good operating practices, single runway separation, multiple runway separation, wake turbulence separation, initial instrument flight rules (IFR) separation, and helicopter separation.

All current tower controllers were required to complete the series of CBI courses. Tower facilities will continue to use these courses for recurrent or refresher training.

As part of the continuous evaluation and performance improvement efforts outlined in the FAA Flight Plan, the FAA plans to conduct facility evaluations at 60 air traffic control towers in FY 2004 emphasizing runway safety. These towers will be evaluated for compliance with phraseology and procedures for runway crossings, taxi and ground movement operations, and taxi into position and hold operations. Special emphasis will also be given to evaluating the procedures and phraseology used during airport traffic scanning, local and ground controller coordination, position determination of aircraft, and use of memory aids. The findings of these evaluations will be used in developing safety guidance for air traffic control towers as part of the FAA's efforts to further reduce collision risk.

**Figure 10**

*Number and Severity of Pilot Deviations (FY 2000 through FY 2003)*
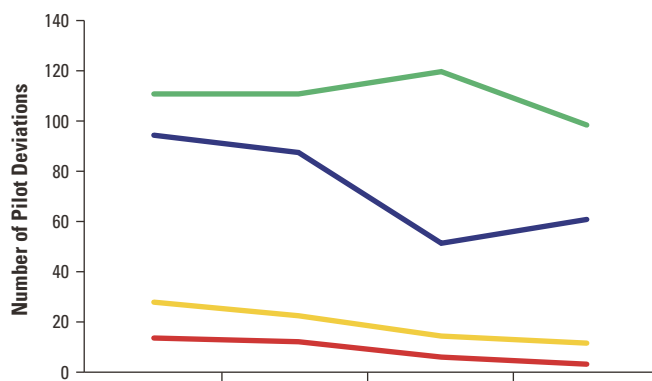


|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total PD |
|---|---|---|---|---|---|
| Category D | 111 | 111 | 120 | 99 | **441** |
| Category C | 95 | 88 | 51 | 61 | **295** |
| Category B | 28 | 22 | 14 | 11 | **75** |
| Category A | 13 | 12 | 6 | 3 | **34** |
| **Total** | **247** | **233** | **191** | **174** | **845** |

For the longer term, the FAA is developing a method to help identify the root causes of errors leading to operational errors/deviations. JANUS, a voluntary structured interview technique designed by human factors specialists, employs custom-developed software that directs the interview process and records responses in a manner that helps to identify both individual and system-related factors contributing to human error. An understanding of the root causes of operational errors/deviations allows for the development of technology or procedures that, once implemented, may contribute to the reduction of these specific errors. It is hoped that JANUS will help identify causal factors over the coming years.

## Pilot Deviations

*From FY 2000 through FY 2003, progress was made in reducing the total number, rate, and severity of pilot deviations—the most common type of runway incursion.*

Pilot deviations accounted for 57 percent (845 events) of the runway incursions during this four-year period. As a result, the FAA has focused efforts on reducing pilot deviations through awareness, education, procedures, and surface technologies. From FY 2000 through FY 2003, the number and rate of pilot deviations consistently decreased (see *Figure 8*). In FY 2000, there were 247 pilot deviations, or less than one event per day. In FY 2003, there were 174 pilot deviations—a rate of one event every two days.

**Pilot deviations accounted for 57 percent (845 events) of the runway incursions during this four-year period.**

**During the four-year period, the number and rate of pilot deviations consistently decreased. In FY 2003, there were 174 pilot deviations— a rate of one event every two days.**

From FY 2000 through FY 2003, 58 percent (109 events) of the Category A and B events were pilot deviations, which is in proportion to the national distribution of pilot deviations (57 percent). The number of Category A and B pilot deviations decreased 66 percent during the four-year period (see *Figure 10*). Of the 247 pilot deviations that occurred in FY 2000, 41 were Category A and B events (17 percent). Of the 174 pilot deviations that occurred in FY 2003, 14 were Category A and B events (8 percent). The reduction in both the total number of pilot deviations and those that resulted in Category A and B events represents substantial progress.

To continue to reduce the total number of pilot deviations, strategies must target the mitigation of the most pervasive pilot errors.

For the four-year period, the FAA identified the following common errors that contribute to pilot deviations:

■ Pilots read back controllers' instructions correctly but did not comply with the instructions,

■ Pilots failed to hold short of the runway as instructed and crossed or taxied into position on the runway, and

■ Pilots accepted clearances issued to an aircraft other than their own.

To address these types of errors, the FAA has worked with external agencies, airport officials, and safety experts to increase surface safety awareness on a national level. In addition, the FAA is working with airports, airlines, and the general aviation communities to create remediation strategies that do not rely solely on changes to the airport surface.

As part of the national initiative to raise pilot awareness of runway incursions, the FAA developed and promoted a set of airfield safety materials. These materials included Advisory Circulars (AC) regarding the use of standard operating procedures for conducting safe taxiing, and flashcards with airport signs and markings developed by the Aircraft Owners and Pilots Association (AOPA) Air Safety Foundation. Videotapes were created for flight training instructors, pilots, and student pilots to enhance the recognition of runway signs and markings. The FAA mailed these materials to certified flight instructors and designated pilot examiners to facilitate instruction. The materials are also currently available at airport facilities across the United States.

The FAA is also raising awareness of runway incursions at specific airports through the identification of runway incursion "hot spots." With encouragement from the FAA, airport operators have worked with Jeppesen Sanderson, Inc. to highlight these locations on the charts that pilots use.

Additionally, the FAA has worked with airport operators on implementing new airfield surface safety technologies such as Runway Status Lights (RWSL). This technology includes a set of automatically controlled runway status lights designed to inform pilots and ground vehicle operators when a runway is unsafe to enter or cross. A pilot may also be warned that the runway is unsafe to begin takeoff roll. An evaluation program for this technology is scheduled at Dallas/Fort Worth International airport.
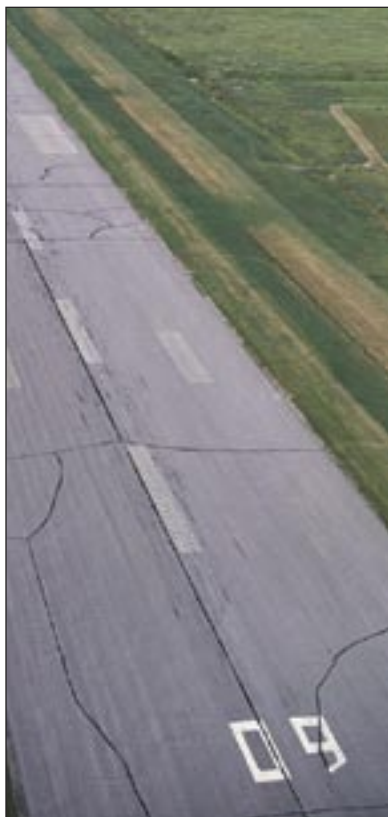
## Enhanced Surface Markings For Airports

To specifically address airport infrastructure that helps enhance pilots' awareness of their location on the airport and especially the runway holding position environment, the FAA worked with industry safety experts, human factors specialists, pilot and controller communities, paint contractors, and airport operators on an enhanced surface markings study. During FAA/Industry workshops, stakeholders identified and developed the proposed marking enhancements for evaluation in simulations and field tests.

General aviation and airline pilots participated in two simulations to determine if enhanced surface markings would improve their awareness of the runway holding position environment. The findings of the simulations identified benefits for three proposed enhancements: modified holding position markings, surface-painted holding position signs, and an enhanced taxiway centerline. Furthermore, the simulations showed that the combination of these enhancements—as opposed to any individual implementation of one of the enhancements—had the greatest effect on a pilot's ability to detect the approaching runway environment.

In June 2003, field demonstrations began at T.F. Green Airport (PVD) in Providence, Rhode Island. PVD added the enhanced surface markings to the entire airfield. Because of the positive results of this evaluation, the FAA is developing proposed changes for comment to its marking standards that may incorporate the enhancements evaluated at PVD.

## Vehicle/Pedestrian Deviations

*Although the total number and rate of vehicle/pedestrian deviations have decreased slightly since FY 2001, the number of Category A and B vehicle/pedestrian deviations has shown a small increase during this period.*

Vehicle/pedestrian deviations accounted for 20 percent (291 events) of all runway incursions during the four-year period (see *Figure 8*). Of the 189 Category A and B runway incursions during this period, 16 percent (30 events) were vehicle/pedestrian deviations, which is in proportion to the distribution of vehicle/pedestrian deviations nationally. There has been a downward trend in the overall number and rate of vehicle/pedestrian deviations since FY 2001, but the number of Category A and B vehicle/pedestrian deviations increased slightly from FY 2001 through FY 2002 (see *Figure 11*). In FY 2001, there were 83 vehicle/pedestrian deviations, with five of these events being classified as Category A and B incursions. In FY 2003, the number of vehicle/pedestrian deviations decreased to 60 events; however, nine of these events were Category A and B incursions. These small numbers of occurrences make it difficult to measure trends reliably—underscoring the need for more sensitive runway safety metrics.

**Vehicle/pedestrian deviations accounted for 20 percent (291 events) of the runway incursions during the four-year period.**

**Of the 189 Category A and B runway incursions during the four-year period, 16 percent (30 events) were vehicle/pedestrian deviations, which is in proportion to the distribution of vehicle/pedestrian deviations nationally.**

**Figure 11**

*Number and Severity of Vehicle/Pedestrian Deviations (FY 2000 through FY 2003)*
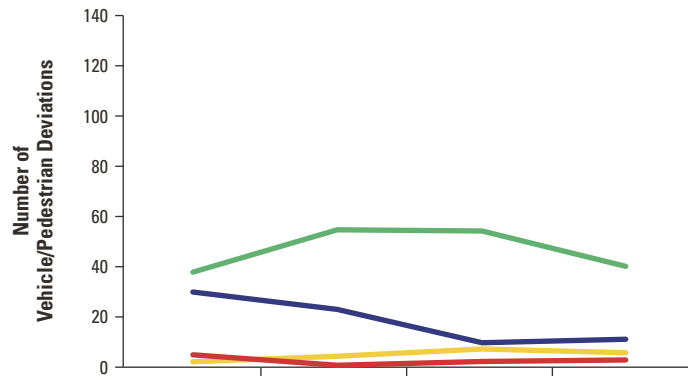


|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total V/PD |
|---|---|---|---|---|---|
| — Category D | 38 | 55 | 54 | 40 | **187** |
| — Category C | 30 | 23 | 10 | 11 | **74** |
| — Category B | 2 | 4 | 7 | 6 | **19** |
| — Category A | 5 | 1 | 2 | 3 | **11** |
| **— Total** | **75** | **83** | **73** | **60** | **291** |

In addition to the current strategies for training vehicle operators and maintenance personnel, strategies that address airfield access will also be required for continued risk reduction. For the four-year period, the most common errors that led to vehicle/pedestrian deviations were as follows:

■ Pedestrians or privately owned vehicles not authorized on the movement area or airfield that entered the runway without authorization by air traffic control; and

■ Personnel or airport vehicles authorized on the movement area or airfield and instructed to hold short of the runway—and whose operators verbally acknowledged the instructions—entered the runway.

Aircraft re-positioning is often accomplished via a maintenance taxi or tug operation. A maintenance taxi or tug operation refers to a mechanic (who is not a licensed pilot) taxiing an aircraft or driving an airline service vehicle that is towing an aircraft on the airport surface. Airlines, charter services, and air cargo operations use these methods to re-position aircraft. When a runway incursion occurs during a maintenance taxi or tug operation, the FAA currently classifies the event as a vehicle/pedestrian deviation.

From FY 2000 through FY 2003, there were 35 vehicle/pedestrian deviations involving maintenance taxi or tug operations. Of the 25 airports that reported these kinds of incidents, the majority managed commercial aviation and cargo operations with large-scale maintenance or cargo facilities. Three of these 35 incursions were rated as Category B events and zero incursions were rated as Category A events.

Although vehicle/pedestrian deviations represented a smaller portion of the nation's runway incursions, the FAA recognizes the potential risk that these incursions present.

One example is the lack of maneuverability of an aircraft in tow. The FAA is therefore implementing strategies to influence the reduction of risk when an aircraft is being re-positioned on the airfield.

The FAA Great Lakes Region (AGL) has a large number of maintenance taxi operations per year due to several large airline maintenance hubs located in this region. To further understand these operations and identify strategies to reduce the risk of these runway incursions, the FAA teamed with airlines and the airport operator at Chicago O'Hare International Airport. This airport has two major air carrier maintenance facilities, expansive cargo operations, and approximately 22,000 employees with driving privileges. The O'Hare airport operator implemented a strict set of policies and procedures for driving on the airfield, including bi-annual testing for those with driving privileges and a mandatory training program for mechanics that are authorized to taxi aircraft. Approximately 1,400 mechanics have been trained and more will receive training in the future. Feedback suggests that the training programs and bi-annual testing have raised the awareness of runway incursions and may have prevented some of the errors that lead to this type of incursion. In addition to these efforts, the FAA and the O'Hare airport operator created an evaluation team that meets on a monthly basis and discusses all runway incursions and other incidents to examine potential mitigation strategies. These meetings have helped identify and implement the following safety measures as part of O'Hare's operations:

■ Coded taxi routes for use by mechanics taxiing aircraft,

■ Use of standard call-signs to identify maintenance taxi operations to air traffic control, and

■ Recurrent training programs for taxi and tug drivers of all skill levels.

## Education in Surface Operations for Non-Pilot/Maintenance Personnel

The FAA has developed two products designed to help reduce the number of maintenance taxi and tug incursions. The objective of these products is to inform and educate the non-pilot and maintenance personnel that taxi or tow aircraft on the airport surface.

In September 2002, FAA Flight Standards Services released FAA *Taxi 101*. Taxi 101 is a safety guide created to assist in the training of mechanics and all non-pilot personnel responsible for taxiing aircraft on the airport surface. The safety guide steps the airport personnel through the procedures, phraseology, and airport signs and markings encountered from pre-taxi tasks through engine shutdown. The FAA has distributed a CD version of Taxi 101 to aircraft maintenance schools and major airlines.

FAA's Flight Standards Services has also developed FAA *Tug and Tow 101* for vehicle operators that operate tow vehicles on the airport surface. This guide is directed at personnel who tug or tow aircraft and provide information on how to operate safely in the airport environment.

# Commercial Aviation Operations

**COMMERCIAL AVIATION OPERATIONS** accounted for approximately 38 percent of all aircraft operations in the NAS from FY 2000 through FY 2003. The following section explores the risk of runway incursions to commercial aviation operations from three perspectives:

■ Runway incursions involving commercial aircraft,

■ Runway incursions at the airports that predominantly handle commercial aircraft operations, and

■ Runway incursions involving commercial aircraft at an airport with mostly commercial aviation operations.

## Commercial Aircraft Involved in Runway Incursions

*Although the number and rate of commercial aviation runway incursions did not show any sustained reduction from FY 2000 through FY 2003, runway incursion severity—and specifically the number of Category A and B COMM/COMM incursions—decreased sharply.*

Over the four fiscal years, 39 percent (572 incursions) of the 1,475 runway incursions involved at least one commercial aviation aircraft, which is in proportion to the number of commercial operations in the NAS (38 percent). The number and rate of runway incursions involving one or two commercial aircraft fluctuated over the four fiscal years and did not show any sustained reduction (see *Figure 12*).

**Over the four fiscal years, 39 percent (572 incursions) of the 1,475 runway incursions involved at least one commercial aviation aircraft, which is in proportion to the number of commercial operations in the NAS (38 percent).**

**Figure 12**
*Runway Incursion Rates for Commercial Operations (FY 2000 through FY 2003)*



| | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Commercial Runway Incursions | 149 | 156 | 124 | 143 | 572 |
| Commercial Runway Incursion Rate | 5.7 | 6.1 | 5.1 | 5.9 | 5.7 |
| COMM/COMM Runway Incursion Rate | 2.5 | 2.6 | 2.0 | 2.9 | 2.5 |
| Commercial Operations | 25,919,211 | 25,644,902 | 24,238,924 | 24,248,416 | 100,051,453 |
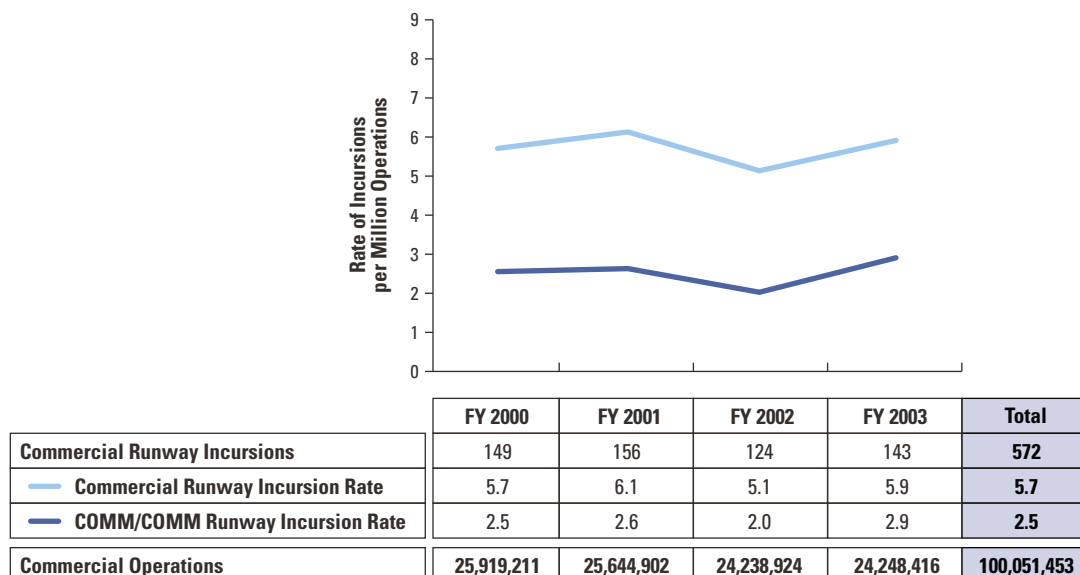
**Figure 13**

*Total Number and Rate of Category A and B COMM/COMM Runway Incursions (FY 2000 through FY 2003)*



| COMM/COMM Events | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| Category B | 17 | 0.66 | 11 | 0.43 | 3 | 0.12 | 4 | 0.16 | 35 | 0.35 |
| Category A | 6 | 0.23 | 4 | 0.16 | 0 | 0.00 | 0 | 0.00 | 10 | 0.10 |
| Total | 23 | 0.89 | 15 | 0.58 | 3 | 0.12 | 4 | 0.16 | 45 | 0.45 |
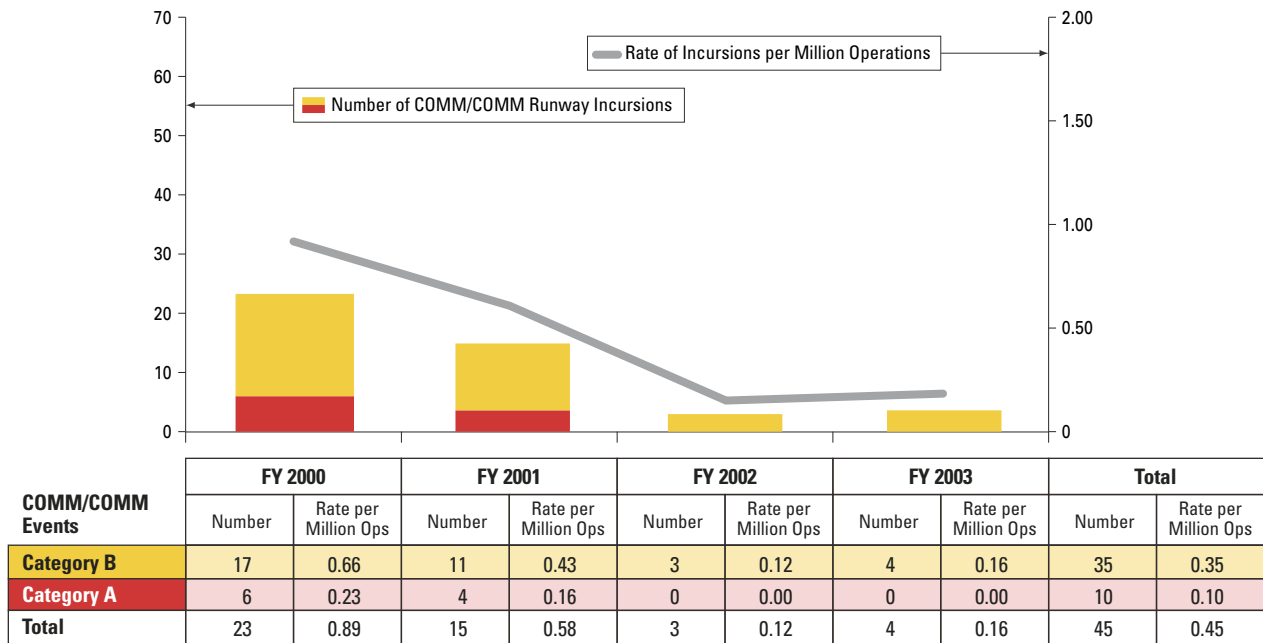
From FY 2002 through FY 2003, the number of commercial aviation operations increased nationally by about 10,000 operations—a total increase of approximately 27 commercial operations per day. During this period, the commercial aviation runway incursion rate increased from five to approximately six incursions per million operations—a rate of one commercial runway incursion every 2.6 days, on average. The rate of incursions involving two commercial aircraft (COMM/COMM) increased from two to approximately three COMM/COMM incursions per million operations—an average of nearly one COMM/COMM incursion every six days.

From FY 2000 through FY 2003, approximately 50 percent (95 of the total 189 incursions) of Category A and B incursions involved at least one commercial aviation aircraft, and the number of these incursions decreased 79 percent to a total of nine events in FY 2003.

Twenty-four percent (45 incursions) of Category A and B incursions involved two commercial aviation aircraft (COMM/COMM). During the four-year period, there was a downward trend for these COMM/COMM incursions (see *Figure 13*). Over the past four fiscal years, the number of COMM/COMM Category A and B incursions decreased from 23 incursions in FY 2000 to four incursions in FY 2003[5]. The rate of COMM/COMM Category A and B incursions decreased from 0.89 COMM/COMM incursions per million operations in FY 2000 to 0.16 COMM/COMM incursions per million operations in FY 2003.

**The number of Category A and B COMM/COMM runway incursions decreased markedly from 23 events in FY 2000 to four events in FY 2003.**

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[5] *In FY 2003, two of these COMM/COMM incursions were operational errors/deviations and two were pilot deviations. All four of these incursions occurred at the OEP-35 airports.*

**Figure 14**

*Number of Runway Incursion Types Involving At Least One Commercial Aviation Aircraft (FY 2000 through FY 2003)*



|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| **Pilot Deviations** | 85 | 84 | 74 | 64 | **307** |
| **Operational Errors/ Deviations** | 45 | 43 | 27 | 52 | **167** |
| **Vehicle/Pedestrian Deviations** | 19 | 28 | 23 | 27 | **97** |
|  |  |  |  |  | **571** |
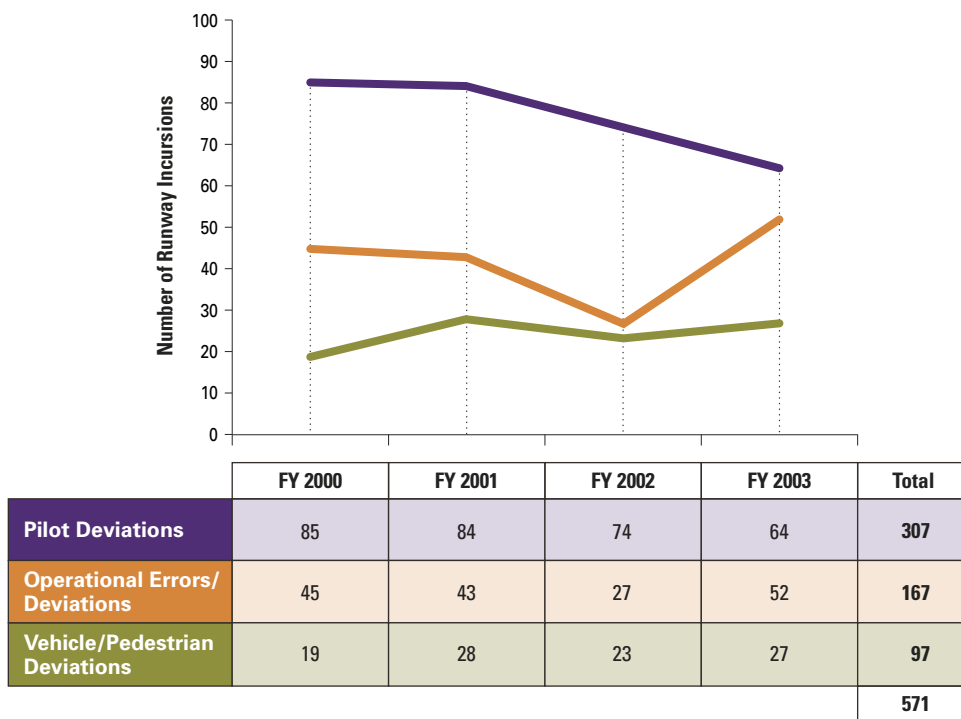
Commercial aviation aircraft involved in pilot deviations—Nationally, there were 845 pilot deviations for the four-year period, with 36 percent of these runway incursions involving at least one commercial aviation aircraft. From FY 2000 through FY 2003, there was a downward trend in the number of commercial aviation runway incursions classified as pilot deviations (see *Figure 14*). In FY 2000, there were 85 pilot deviations involving at least one commercial aviation aircraft compared to 64 of these events in FY 2003. There was also a decrease in the severity of commercial aviation runway incursions that were classified as pilot deviations—from 25 Category A and B events in FY 2000 to three Category A and B events in FY 2003.

Commercial aviation aircraft involved in operational errors/deviations—Nationally, there were 339 operational errors/deviations for the four-year period, with 49 percent involving at least one commercial aviation aircraft. In FY 2003, there was a notable increase (25 incursions) in the number of operational errors/deviations that involved a commercial aviation aircraft (see *Figure 14*) that erased results from the previous year, ending in a flat performance for the period. This increase in operational errors/deviations occurred primarily at airports with a large volume of commercial aircraft operations and involved mostly Category C and D events. The number of Category A and B operational errors/deviations involving a commercial aircraft decreased from 15 incursions in FY 2000 to zero incursions in FY 2002. However, in FY 2003, there were three Category A and B operational errors/deviations involving a commercial aircraft. Currently, it has become

difficult to reliably identify trends versus anomalies as the number of Category A and B operational errors/deviations involving commercial aviation aircraft has reached single-digit levels. Therefore, the FAA is investigating new metrics to measure risk and progress for commercial aviation Category A and B incursions.

Commercial aviation aircraft involved in vehicle/pedestrian deviations—Over the four fiscal years, there were 291 vehicle/pedestrian deviations, with 33 percent of these events involving at least one commercial aviation aircraft. Whereas the total number of vehicle/pedestrian deviations involving commercial aviation aircraft fluctuated over the four-year period (see *Figure 14*), the number of Category A and B events remained stable at approximately four per year.

Strategy for reducing commercial aviation runway incursions—Because the majority of commercial aviation incursions were pilot deviations, the FAA is identifying technologies, procedures, and training to reduce risks to the commercial aviation community. Through government and industry working groups such as the Commercial Aviation Safety Team (CAST), the FAA and commercial aviation communities have identified strategies to raise the awareness of commercial aircraft pilots regarding runway incursions. In addition, they have identified technologies for the pilot and for the airport surface to address the errors that typically lead to pilot deviations.

In response to the CAST recommendation for the development and implementation of standard operating procedures (SOPs) for ground operations, the FAA worked with representatives from government agencies, pilot organizations, airlines, and air cargo to develop AC No. 120-74A, which emphasizes "best practices" for surface operations. This revised advisory circular provides guidelines to aircraft operators for the development and conduct of standard pilot and crew operating procedures. More specifically, it discusses cockpit tasks that are typically performed during surface operations—planning ahead for taxiing, actively monitoring and updating progress in moving across the airport using airport diagrams, techniques for crossing increasingly complex intersections and runways, intra-cockpit verbal coordination, and communications between pilots and controllers.

Before releasing the advisory circular, the FAA coordinated with several industry groups—such as the Air Line Pilots Association (ALPA), Air Transport Association (ATA), and International Federation of Air Line Pilots Association (IFALPA)—to assure understanding and acceptance by members of these organizations. In addition, the FAA worked in partnership with the industry groups to develop a communications and awareness strategy to provide education regarding the information, procedures, and guidelines defined in the advisory circular.

Some airlines have gone beyond the adoption of the advisory circular's recommendations and have instituted the practice of reconfirming the crossing clearance at every runway intersection. One major airline has addressed some of the errors involved in runway incursions through a mandate that all of its pilots complete checklists before taxiing rather than while taxiing to the runway. This allows the flight crews to focus on taxiing the aircraft, maintaining awareness of their location on the airport, and following instructions provided by air traffic control.

To complement runway safety risk management initiatives directed toward the airport surface and control tower, technologies are being introduced in the cockpit to help reduce runway incursions. ALPA safety representatives are facilitating the incorporation of the Electronic Flight Bag (EFB) in airliner cockpits. The EFB is an in-cockpit electronic display that may include charts, lists of worldwide procedures, weather information, and a cockpit moving-map display (CMMD)—much like the global positioning system (GPS) street map available in cars today—that shows pilots the position of their own airplane with respect to the airport surface. In a comprehensive runway incursion risk mitigation study, CAST found CMMD to be a highly effective safety enhancement for reducing the risk of runway incursions that are pilot deviations.

## Runway Incursions at Airports with Predominantly Commercial Aircraft Operations

*The increase in operational errors/deviations in FY 2003 occurred primarily at the FAA Operational Evolution Plan (OEP)-35 airports and involved mostly Category C and D events. These airports reported a greater proportion of operational errors/deviations (32 percent) compared to the national distribution (23 percent).*

The FAA evaluated how airport-specific factors, such as the composition of aircraft operations, might interact with traffic volume to affect the opportunities for runway incursions. Runway incursion trends were examined for airports that predominantly handle commercial operations and have a large volume of traffic. The FAA examined the airports identified in the FAA *Operational Evolution Plan (OEP)*—OEP-35 airports—because these airports manage mostly commercial operations and the FAA considers these airports to be significant drivers of NAS performance in terms of system capacity. Most of the OEP-35 airports handled a mix of traffic that consisted of more than 80 percent commercial aircraft operations. The projected increase in traffic volume at this group of airports—and the corresponding changes in airport infrastructure, procedures, and technologies to accommodate this demand—may affect surface safety.

From FY 2000 through FY 2003, the OEP-35 airports accounted for 26 percent (385 events) of the total number of runway incursions. This is in proportion to the operations handled by these airports—24 percent of all aircraft operations.

**Figure 15**

*Number and Severity of Runway Incursions at the OEP-35 Airports
(FY 2000 through FY 2003)*
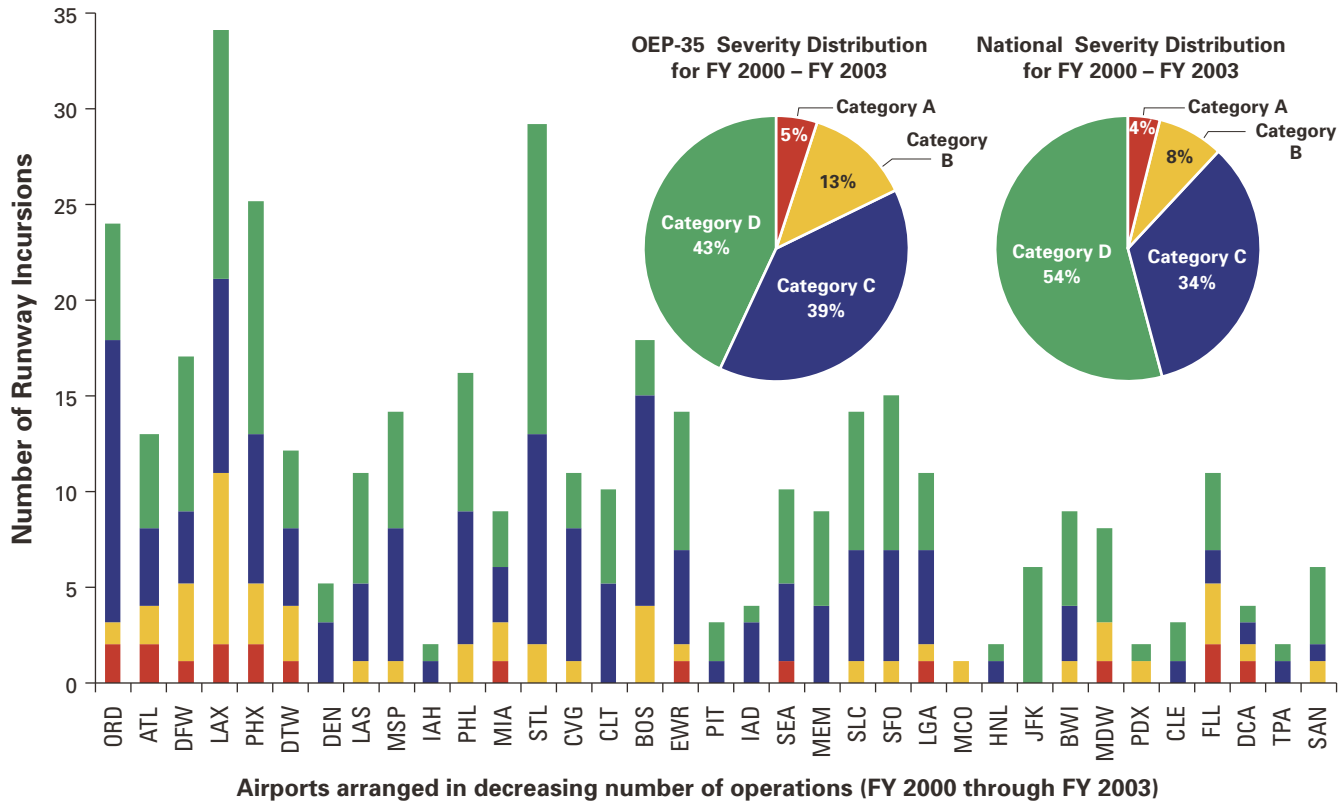


NOTE: Appendix C.1 lists the names and identifiers for the OEP-35 airports.

**The number of Category A and B events at the OEP-35 airports decreased from 30 events in FY 2000 to seven events in FY 2003—a 77 percent decrease.**

The OEP-35 airports also accounted for 35 percent (67 events) of the 189 Category A and B runway incursions nationwide from FY 2000 through FY 2003. However, the OEP-35 airports had a higher proportion of Category A and B events (18 percent) compared to the national distribution (12 percent) over this four-year period (see *Figure 15*). The number of Category A and B events at the OEP-35 airports decreased from 30 events in FY 2000 to seven events in FY 2003—a 77 percent decrease.

Fifty percent (190 events) of the runway incursions at the OEP-35 airports involved pilot deviations (see *Figure 16*), which is slightly below the national distribution (57 percent). The number and rate of pilot deviations at the OEP-35 airports decreased during the four-year period. In FY 2000, there were 56 pilot deviations and a rate of 3.4 pilot deviations per million operations. In FY 2003, there were 41 pilot deviations and a rate of 2.7 pilot deviations per million operations.

**Figure 16**

*Types of Runway Incursions at the OEP-35 Airports*
*(FY 2000 through FY 2003)*



**OEP-35 Distribution of Runway Incursion Types for FY 2000 – FY 2003**

V/PD 18% | OE/D 32% | PD 50%

**National Distribution of Runway Incursion Types for FY 2000 – FY 2003**

V/PD 20% | OE/D 23% | PD 57%

| Sites | ORD | ATL | DFW | LAX | PHX | DTW | DEN | LAS | MSP | IAH | PHL | MIA | STL | CVG | CLT | BOS | EWR | PIT | IAD | SEA | MEM | SLC | SFO | LGA | MCO | HNL | JFK | BWI | MDW | PDX | CLE | FLL | DCA | TPA | SAN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **AMASS** | ● | ● | ● | ● | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | ● | ● | | ● | ● | | ● | | ● |
| **ASDE-X** | | | | | ● | | | | | | | | | | ● | | | | | | | | | | ● | ● | | | ● | | | ● | | ● | |
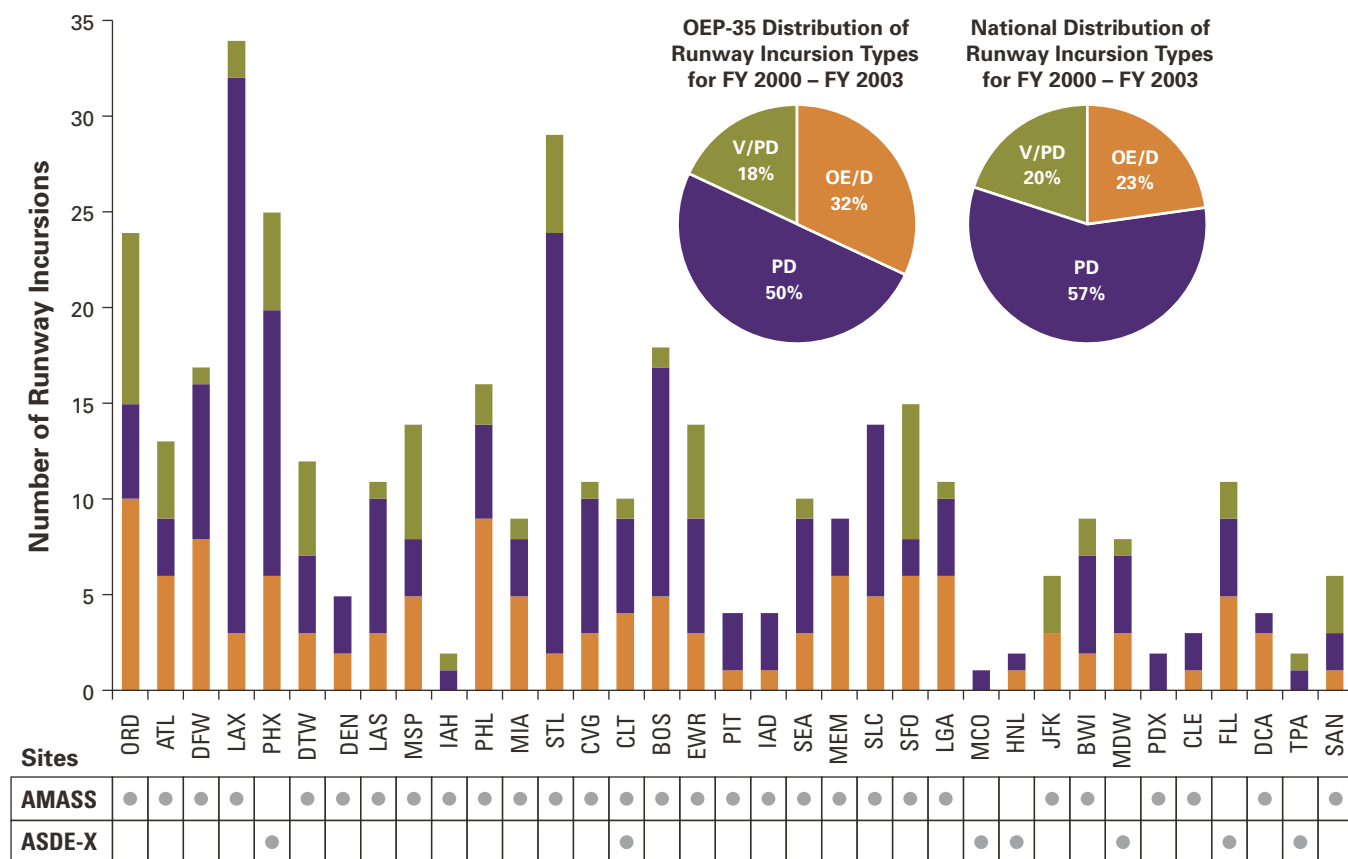
**Airports arranged in decreasing number of operations (FY 2000 through FY 2003)**

*NOTE: Appendix C.3 lists the names and identifiers for airports where these technologies are being implemented.*

Operational errors/deviations represented 32 percent (124 events) of the runway incursions at the OEP-35 airports, which is above the national distribution (23 percent). Although there was no sustained reduction in the total number or rate of operational errors/deviations during this four-year period, there was a 73 percent reduction in Category A and B operational errors/deviations (11 events in FY 2000 compared to three events in FY 2003).

As the OEP-35 airports had a greater proportion of operational errors/deviations compared to the national distribution (see *Figure 16*), surface technology such as the Airport Movement Area Safety System (AMASS) was implemented to reduce the risk of aircraft collisions on runways. Implementation of an additional surface technology—Airport Surface Detection Equipment, Model X (ASDE-X)—was initiated during this period as well.

**At the OEP-35 airports, a greater proportion (32 percent) of operational errors/deviations was reported in comparison to the national distribution (23 percent).**

## New Technology for Airports

The FAA has identified and deployed advanced technologies to reduce the risks of runway collisions at commercial airports. Specifically, the FAA commissioned runway surface surveillance systems at the OEP-35 airports between March 1999 and December 2003. Runway surface surveillance systems use ground surveillance radar to provide tower controllers with information on the position and identification of aircraft and vehicles. The surveillance systems use state-of-the-art safety logic software—called the Airport Movement Area Safety System (AMASS)—that predicts potential collisions of aircraft and vehicles and provides visual and aural warnings to the controllers.

For example, a Category A runway incursion occurred in July 2003 at the Hartsfield-Jackson Atlanta International Airport. A commercial aircraft was cleared to land on Runway 26R at night when an airport cargo truck crossed the approach end of Runway 26R without authorization. AMASS alerted the local controller, who ordered the aircraft to go around and abort the landing. Although the event was classified as a runway incursion, the controllers credited AMASS with preventing a collision.

The next generation ground surveillance software being deployed is the Airport Surface Detection Equipment, Model X (ASDE-X). ASDE-X presents aircraft and vehicle position and identification information overlaid on a color map showing the surface movement area and arrival corridors.

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**Vehicle/pedestrian deviations represented 18 percent (71 events) of the runway incursions at the OEP-35 airports—which is in proportion to their national representation (20 percent).**

**In FY 2000, there were 18 Category A and B incursions involving two commercial aircraft at the OEP-35 airports. In FY 2003, there were four Category B and zero Category A COMM/COMM incursions at the OEP-35 airports.**

Vehicle/pedestrian deviations represented 18 percent (71 events) of the runway incursions at the OEP-35 airports (see *Figure 16*), which is in proportion to their national representation (20 percent). The number and rate of vehicle/pedestrian deviations remained stable from FY 2001 through FY 2003.

In FY 2000, there were 18 Category A and B incursions involving two commercial aircraft at the OEP-35 airports. In FY 2003, there were four Category B and zero Category A COMM/COMM incursions at the OEP-35 airports.

Commercial aviation aircraft at the OEP-35 airports—As the OEP-35 airports predominantly handle commercial aircraft, it is not surprising that the majority of runway incursions at these airports involved two commercial aircraft (COMM/COMM). From FY 2000 through FY 2003, the majority (87 percent) of Category A and B COMM/COMM incursions occurred at the OEP-35 airports. The number of Category A and B COMM/COMM incursions decreased over the four-year period. In FY 2000, there were 18 Category A and B incursions involving two commercial aircraft at the OEP-35 airports. In FY 2003, there were four Category B and zero Category A COMM/COMM incursions at the OEP-35 airports. Future trends will be difficult to identify because these events have reached a very low base rate. More sophisticated metrics are needed to measure progress and emerging risks.

## Commercial Aircraft Involved in Runway Incursions at an OEP-35 Airport—Los Angeles International Airport

The FAA has worked with individual airports to address the risks of collisions on runways for commercial aircraft operators. Los Angeles International Airport (LAX), located in the FAA Western Pacific Region, is ranked fourth in the total number of operations from FY 2000 through FY 2003, with commercial operations accounting for 97 percent of the total operations. For the four-year period, LAX led the nation in the total number of runway incursions (34 events), number of COMM/COMM runway incursions (30 events), and the overall number of Category A and B runway incursions (11 events). At LAX, ten[6] of these Category A and B incursions involved two commercial aircraft and almost half involved an aircraft that failed to hold short of runway 25R after landing on runway 25L (see *Figure 17*). These closely spaced parallel runways handle high numbers of takeoffs and landings. Upon exiting the runway, the pilot has only a short distance to stop the aircraft before coming to the other parallel runway.

In FY 2000, LAX joined with the FAA and the National Aeronautics and Space Administration (NASA) Ames Research Center to conduct a study at NASA's air traffic control tower simulation facility, Future Flight Central. The simulation was developed to assess infrastructure alternatives and evaluate potential operational procedures to enhance runway safety without disrupting the current day-to-day operations at LAX.

Since FY 2000, LAX has shown progress in decreasing the severity of its runway incursions. This progress may be attributed in part to the runway safety management efforts by LAX such as outreach to the pilot community at LAX, improvements to airport infrastructure (signs, markings, and lights), and the LAX tower controllers' focus on improving existing or implementing new procedures to prevent errors. LAX has reported zero Category A runway incursions for the past three fiscal years. From FY 2000 through FY 2003, the number of Category B runway incursions at LAX has decreased from four events to zero events.

**Figure 17**

*Locations of Runway Incursions at LAX (FY 2000 through FY 2003)*



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[6] *The remaining event was a Category B incursion that involved a commercial aviation aircraft and a vehicle.*

## Airport Infrastructure Modifications

Perimeter taxiways are being studied as a possible solution for reducing the number of runway crossings at an airport. With fewer runway crossings, there are fewer opportunities for runway incursions. Not all airports, however, can support perimeter taxiways due to the surrounding environments such as terrain, waterways, protected land, or city buildings. In addition, perimeter taxiways are not cost-effective unless there is high-traffic volume at the airport.

Dallas/Fort Worth International Airport (DFW) conducts over 1,700 runway crossings per day, which contributes to the opportunity for runway incursions and delays at this airport (see *Figure 18*). In an effort to reduce the number of runway incursions as well as delays, a plan was proposed that included new perimeter taxiways on the East and West sides of the airport. In 2003, the FAA, DFW, and NASA Ames Research Center conducted a real-time human-in-the-loop simulation of DFW at NASA's simulation facility, Future Flight Central. The objective of the study was to evaluate the effects of perimeter taxiways on runway safety and airport efficiency. The simulation demonstrated that perimeter taxiways would reduce runway crossings, improve taxi performance, and increase the aircraft departure rate. The simulation also demonstrated a marked decrease in the number of radio communications, thereby improving radio communication conditions. Overall, the pilots and controllers who participated in the study agreed that perimeter taxiways should be studied further for possible use in the future at DFW.

Other airports, such as Hartsfield-Jackson Atlanta International Airport (ATL), are also investigating the feasibility of perimeter taxiways. The FAA is currently evaluating the risks and benefits of perimeter taxiways to surface safety with the possibility of implementation in the future.

**Figure 18 – Locations of Runway Incursions at DFW (FY 2000 through FY 2003)**
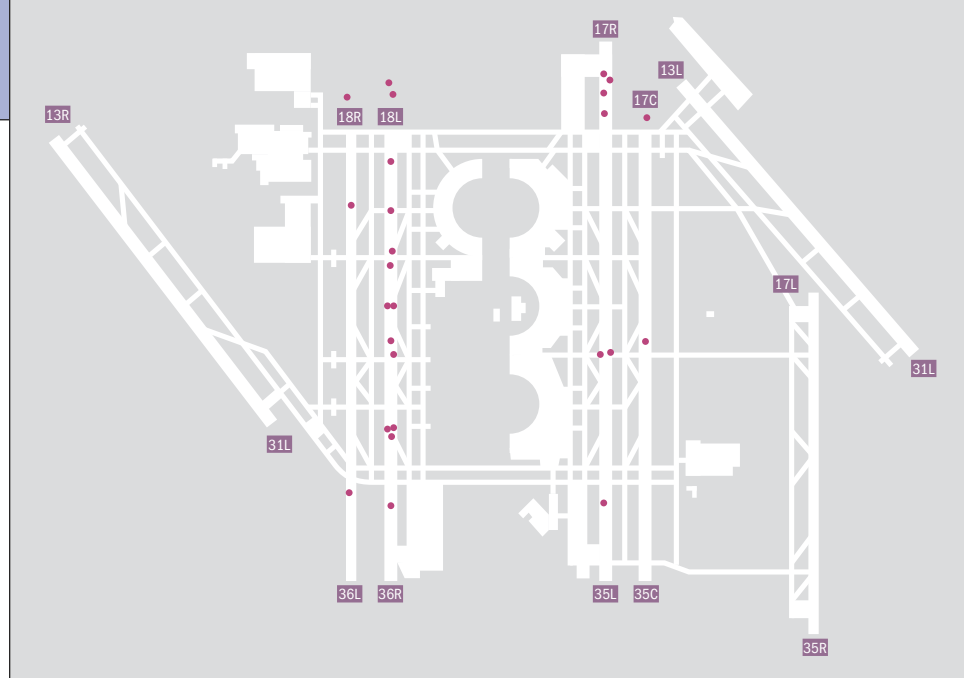
# General Aviation Operations

**GENERAL AVIATION OPERATIONS** accounted for approximately 57 percent of all aircraft operations in the NAS from FY 2000 through FY 2003. This section explores the risk of runway incursions to the general aviation operator from three perspectives:

■ Runway incursions involving general aviation aircraft,

■ Runway incursions at the airports that predominantly handle general aviation aircraft operations, and

■ Runway incursions involving general aviation aircraft at an airport with mostly general aviation operations.

## General Aviation Aircraft Involved in Runway Incursions

*The overall number and rate of general aviation runway incursions decreased over the four-year period. Even though the number of Category A and B pilot deviations involving general aviation aircraft has decreased since FY 2001, events involving general aviation aircraft still represented the majority of Category A and B pilot deviations during this period.*

From FY 2000 through FY 2003, 75 percent (1,112 incursions) of the 1,475 runway incursions involved at least one general aviation aircraft. The number and rate of these general aviation runway incursions have steadily decreased since FY 2001. The rate of incursions involving two general aviation aircraft (GA/GA) also started to decrease in FY 2001 and stabilized at fewer than four GA/GA incursions per million operations, despite the decrease of nearly two million general aviation operations nationally (see *Figure 19*).

**Over the four fiscal years, 75 percent (1,112 incursions) of the 1,475 runway incursions involved at least one general aviation aircraft.**

**Figure 19**
*Runway Incursion Rates for General Aviation Operations (FY 2000 through FY 2003)*
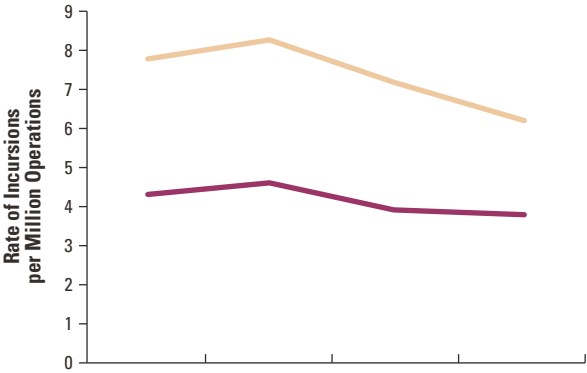


|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| General Aviation Runway Incursions | 312 | 311 | 269 | 220 | 1,112 |
| GA Runway Incursion Rate | 7.8 | 8.3 | 7.2 | 6.2 | 7.4 |
| GA/GA Runway Incursion Rate | 4.3 | 4.6 | 3.9 | 3.8 | 4.2 |
| General Aviation Operations | 39,878,536 | 37,626,866 | 37,575,650 | 35,511,769 | 150,592,821 |

**Figure 20**

*Total Number and Rate of Category A and B GA/GA Runway Incursions
(FY 2000 through FY 2003)*



| GA/GA Events | FY 2000 | | FY 2001 | | FY 2002 | | FY 2003 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| Category B | 8 | 0.20 | 11 | 0.29 | 14 | 0.37 | 11 | 0.31 | 44 | 0.29 |
| Category A | 7 | 0.18 | 10 | 0.27 | 6 | 0.16 | 6 | 0.17 | 29 | 0.19 |
| Total | 15 | 0.38 | 21 | 0.56 | 20 | 0.53 | 17 | 0.48 | 73 | 0.48 |

**Eighty-two percent of the 845 pilot deviations involved at least one general aviation aircraft.**
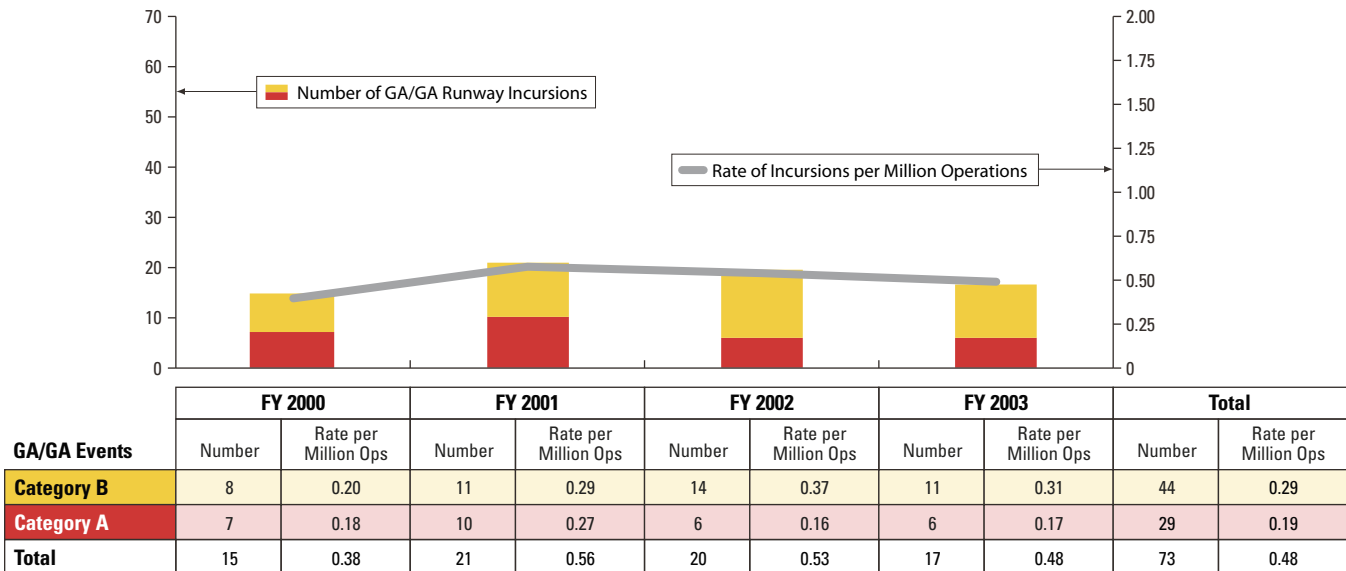
During this four-year period, 66 percent (125 incursions) of Category A and B incursions involved at least one general aviation aircraft. Two general aviation aircraft (GA/GA) were involved in 39 percent (73 incursions) of the Category A and B incursions during this period (see *Figure 20*). The number and rate of GA/GA Category A and B incursions began to decrease in FY 2001 and continued throughout the period. Given that the majority of Category A and B incursions involved general aviation aircraft, the FAA has identified runway safety strategies, such as infrastructure improvements, training, and revised standard operating procedures, to further reduce the number of Category A and B incursions involving general aviation.

General aviation aircraft involved in pilot deviations—Nationally, there were 845 pilot deviations for the four-year period, with 82 percent of these runway incursions involving at least one general aviation aircraft. In FY 2003, there was a total of 14 Category A and B pilot deviations, with 11 of these events involving two general aviation aircraft (and the remaining three events involving a general aviation and a commercial aircraft).

From FY 2000 through FY 2003, the number of pilot deviations involving at least one general aviation aircraft decreased by 33 percent (see *Figure 21*). In FY 2000, there were 203 pilot deviations involving general aviation aircraft compared to 137 of these events in FY 2003. The number of Category A and B pilot deviations involving general aviation aircraft also decreased from 24 events in FY 2000 to 12 events (11 GA/GA incursions and one GA/COMM incursion) in FY 2003.

*Runway Safety Report (FY 2000 – FY 2003)*

**Figure 21**

*Number of Runway Incursion Types Involving At Least One General Aviation Aircraft (FY 2000 through FY 2003)*



| | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| **Pilot Deviations** | 203 | 196 | 156 | 137 | **692** |
| **Operational Errors/Deviations** | 56 | 61 | 61 | 52 | **230** |
| **Vehicle/Pedestrian Deviations** | 54 | 54 | 52 | 31 | **191** |
| | | | | | **1,113** |
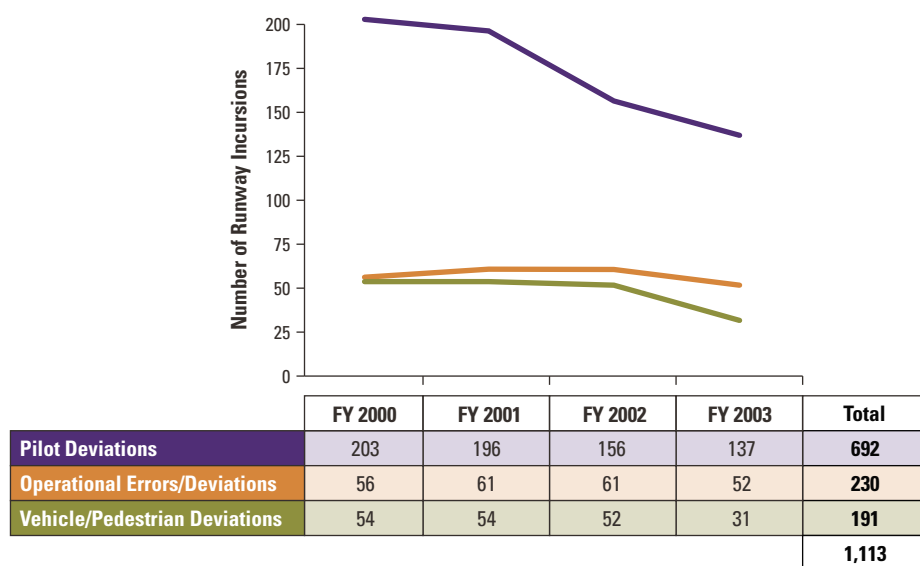
**Strategy for reducing general aviation runway incursions**—To address the number of pilot deviations involving general aviation aircraft, the FAA has teamed with AOPA Air Safety Foundation to raise general aviation pilots' awareness of runway incursions. AOPA Air Safety Foundation is a nonprofit organization that promotes safety and pilot proficiency in general aviation through training, education, research, analysis, and the dissemination of information.

Together, the FAA and AOPA Air Safety Foundation developed an interactive web-based program to educate pilots about preventing runway incursions. The program, which can be accessed from AOPA's web site, is divided into three modules: an arrival into Long Beach–Daugherty Field, a departure from Pittsburgh International Airport, and a 15-item test of a pilot's understanding of the information presented in the first two modules. As an incentive to pilots, successful completion of the program satisfies a ground school requirement of the FAA Wings Pilot Proficiency Award Program—an FAA program that provides pilots with the opportunity to complete required recurrent training. For the 2003 calendar year, an average of 650 pilots per month completed AOPA's interactive program.

Additionally, in response to the CAST recommendation for the development and imple-mentation of SOPs for ground operations, the FAA developed AC No. 91-73A, which emphasizes "best practices" for single-pilot taxi operations. The revised advisory circular provides guidance for tasks that are typically performed during surface operations, such as planning ahead for taxiing, using airport diagrams, and communications between pilots and controllers. Educational materials to help publicize the guidance in AC 91-73A are being distributed to the pilot population.

## Pilot Education and Awareness

FAA sponsored an AOPA Air Safety Foundation Safety Advisor for Operations at Towered Airports. The Safety Advisor stresses compliance with air traffic control instructions, clearances, and the requirement that pilots read back every clearance to hold short of the runway. The crossing of a hold short line without a clearance from air traffic control—the pilot fails to follow the controller's hold short instruction or the pilot correctly acknowledges the hold short instruction but continues into the runway environment—is the predominant pilot error that results in a runway incursion. In addition, the Safety Advisor reminds pilots of the meanings of various airport lighting, pavement markings, and signs.

Single pilots, as opposed to a flight crew, operate the majority of general aviation aircraft involved in runway incursions. A flight crew is able to distribute the responsibilities and duties of taxiing the aircraft and the performance of cockpit tasks, such as completing checklists, configuring aircraft for takeoff and landing, and communicating with air traffic control. The Safety Advisor presents examples of procedures used by airline pilots during surface operations as guidance for general aviation pilots. Airline practices and procedures presented in the Safety Advisor include the following:

- A standard departure procedure used by airlines to program GPS, long-range aids to navigation (LORAN), and radios prior to taxiing the aircraft;

- A sterile cockpit procedure applied by the airlines to limit conversation to topics related to flight operations while taxiing on the surface; and

- A standard procedure to manage cockpit workload to ensure that attention is directed solely to essential tasks while the aircraft is in motion.

**The crossing of a hold short line without a clearance from air traffic control is the predominant pilot error that results in a runway incursion.**
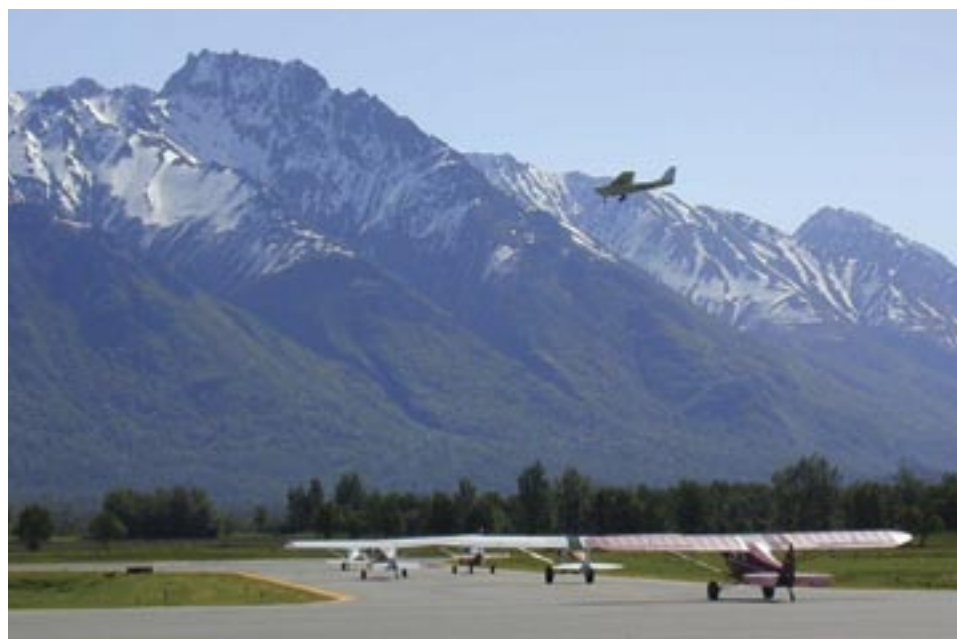
## Runway Incursions at Airports with Predominantly General Aviation Aircraft Operations

*Since FY 2001, the number and rate of pilot deviations at the GA-35 airports have decreased by 23 percent. The GA-35 airports reported a greater proportion of pilot deviations (64 percent) compared to the national distribution (57 percent).*

To explore the characteristics and trends for airports that are most frequently used by the general aviation community, the FAA analyzed runway incursion data for the 35 busiest airports in terms of the volume of general aviation traffic—the GA-35 airports. These airports were identified on the basis of the total number of general aviation operations handled at each airport during the four-year period. General aviation operations comprised 90 percent of the traffic mix at 31 of the 35 airports whereas the remaining four airfields—Boeing Field–King County International Airport (BFI), Teterboro Airport (TEB), John Wayne–Orange County Airport (SNA), and Metropolitan Oakland International Airport (OAK)—had a more balanced distribution of general aviation and commercial operations.

**Figure 22**

*Number and Severity of Runway Incursions at the GA-35 Airports*
*(FY 2000 through FY 2003)*
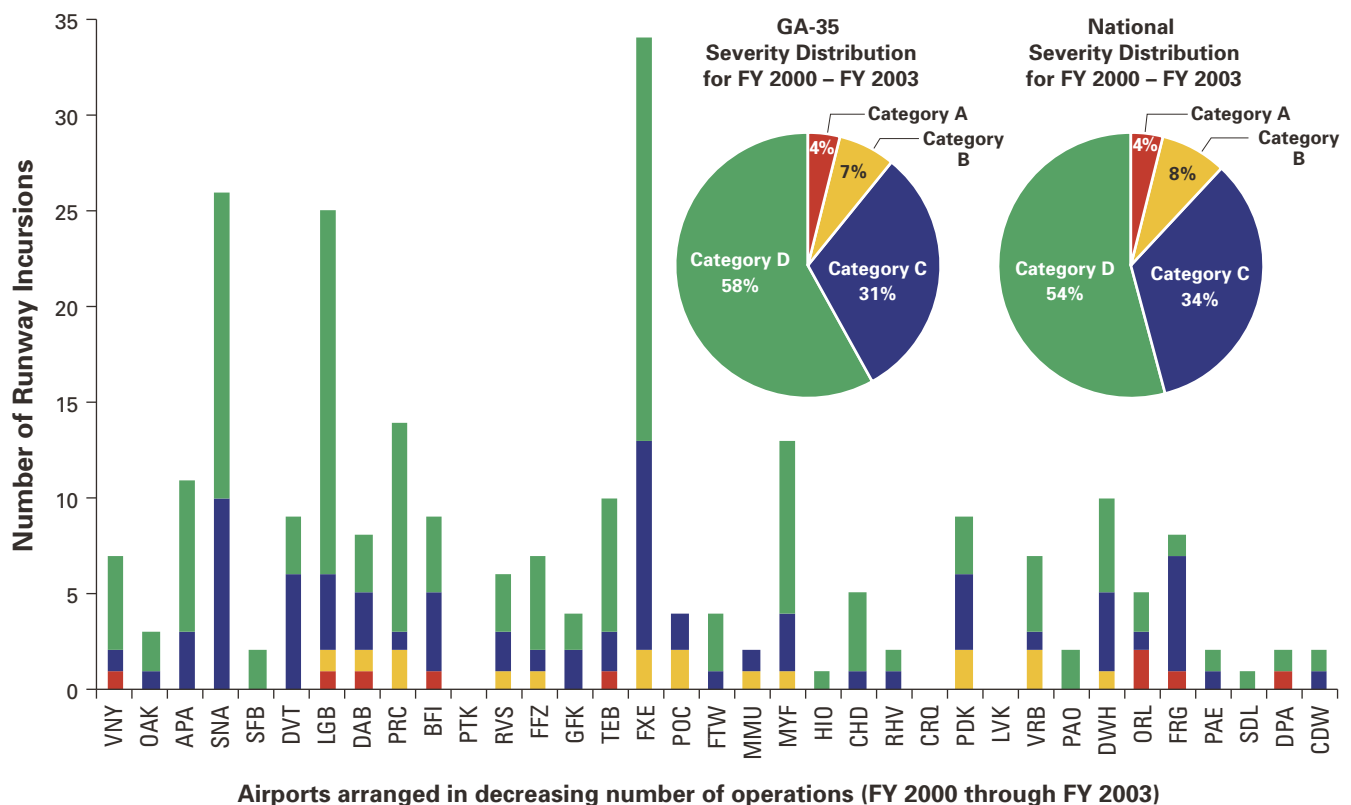


NOTE: Appendix C.2 lists the names and identifiers for the GA-35 airports.

**Figure 23**

*Types of Runway Incursions at the GA-35 Airports (FY 2000 through FY 2003)*
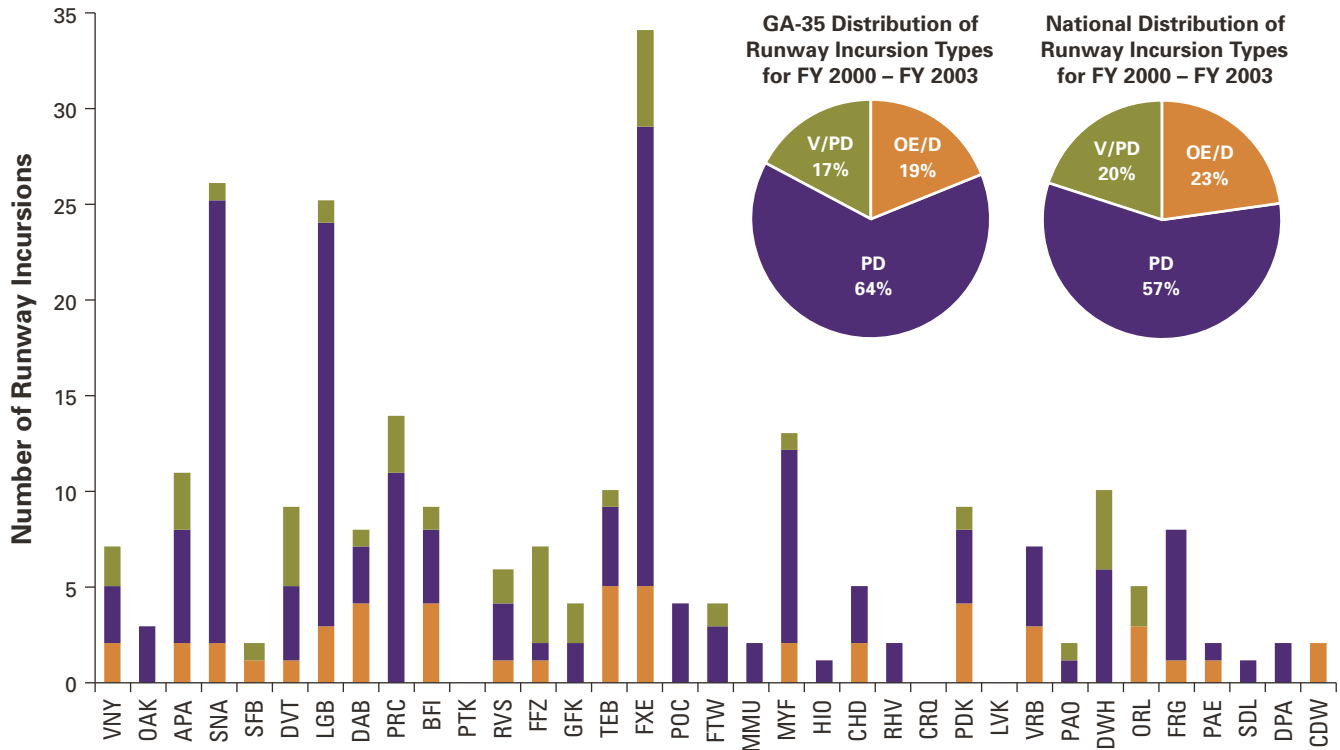


NOTE: Appendix C.2 lists the names and identifiers for the GA-35 airports.

GA-35 airports accounted for 14 percent (254 events) of the total number of runway incursions during the four-year period—which is in proportion to the amount of traffic handled by these airports (17 percent of all operations). Since FY 2001, there has been a downward trend in the number and rate of runway incursions at the GA-35 airports. In contrast to the national trends, the greatest decrease in the number and rate of incursions at the GA-35 airports occurred this past fiscal year. The number of incursions decreased from 67 in FY 2002 to 48 incursions in FY 2003 and was primarily attributed to a decrease in the number of Category D incursions. Similarly, the rate of incursions decreased from approximately seven incursions per million operations in FY 2002 to fewer than six incursions per million operations in FY 2003.

The distribution of runway incursion severity reported by the GA-35 airports was similar to the national distribution (see *Figure 22*). For the GA-35 airports, Category A and B runway incursions accounted for 11 percent of the runway incursions whereas the proportion of Category A and B incursions nationally was 12 percent.

As compared to airports nationwide (57 percent), the GA-35 airports reported a greater proportion of pilot deviations—64 percent of the runway incursions (see *Figure 23*). The number and rate of pilot deviations at the GA-35 airports consistently decreased during the four-year period, reflecting national and OEP-35 trends. Additionally, the number and rate of operational errors/deviations have also decreased at the GA-35 airports since FY 2001, which is in contrast to the national trend and the trend at OEP-35 airports.

General aviation operations at the GA-35 airports—From FY 2000 through FY 2003, the GA-35 airports handled approximately nine million general aviation operations per year. During this period, the GA-35 airports accounted for 23 percent of the total number of general aviation operations and 22 percent of the total number of general aviation runway incursions at United States towered airports. Similar to the national trends for general aviation runway incursions, the number and rate of general aviation runway incursions at the GA-35 airports have decreased since FY 2001. However, unlike the national trend which stabilized from FY 2002 through FY 2003, the rate of GA/GA incursions at the GA-35 airports continued to decrease to fewer than five GA/GA incursions per million operations. The number of general aviation operations at the GA-35 airports also decreased by 500,000 operations this past fiscal year.

## General Aviation Aircraft Involved in Runway Incursions at a GA-35 Airport—Fort Lauderdale Executive Airport

Of all the towered airports, Fort Lauderdale Executive Airport (FXE) in Fort Lauderdale, Florida is the 16th busiest airport in terms of the volume of general aviation traffic (see *Figure 24*). Over the four-year period, 95 percent of the total operations at FXE were general aviation operations. The majority of the incursions were pilot deviations. In addition, FXE reported 29 GA/GA runway incursions for the four-year period. The number of GA/GA incursions at FXE increased from three events in FY 2000 to 12 events in FY 2001. This increase was followed by a downward trend over the remainder of the four-year period.

In FY 2001, the FAA responded to the increase in the number and rate of GA/GA runway incursions with continuous contacts with the FXE community and state officials to heighten awareness of runway incursions and improve runway safety. In addition, FXE hosted a runway safety meeting in March 2002 involving several key stakeholders from FAA and state and local governments. Also in attendance were the users, tenants, and airport and air traffic managers of FXE. This group developed a plan for reducing runway incursions at FXE that incorporated recommendations and "best practices" from other regional runway safety meetings and recommendations from the users and tenants of FXE. Several of these recommendations were implemented at FXE. For example, the FAA

incorporated a notice on the Automated Terminal Information Service (ATIS) that reminds pilots of the occurrence of runway incursions at FXE. In addition, the Fort Lauderdale Flight Standards District Office conducted surveillance, inspections, and coordination with the air traffic controllers on a daily basis to heighten runway safety awareness at the airport. The FAA conducted multiple safety seminars with emphasis on providing runway incursion education and awareness to local pilots. In addition, the FAA disseminated runway safety information to all FXE-based pilots, operators, and corporate flight departments including FXE runway incursion "hot spot" diagrams, FXE runway incursion statistics, and FXE taxi diagrams.

Overall, the initiatives under way at FXE have been successful because of the collaborative efforts of all the parties involved with that airport. Since FY 2001, FXE has shown progress in decreasing the number of GA/GA runway incursions. The number of GA/GA incursions at FXE decreased from the four-year high of 12 incursions in FY 2001 to six incursions in FY 2003. Over the four fiscal years, zero Category A GA/GA incursions and two Category B GA/GA incursions occurred at FXE.

**Figure 24**
*Locations of Runway Incursions at FXE (FY 2000 through FY 2003)*
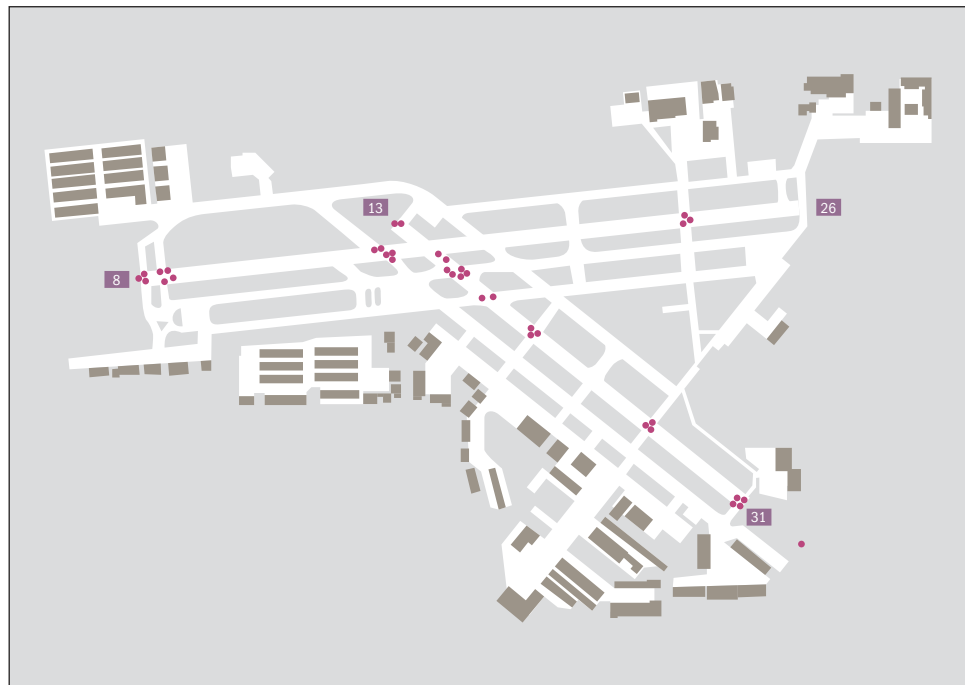
# Summary of Findings

**THE FAA COMPLETED AN ANALYSIS** of runway incursions reported from FY 2000 through FY 2003. National trends were investigated with respect to the frequency, severity, and types of runway incursions that occurred during the four-year period. Commercial aviation and general aviation operations were explored to determine their involvement in runway incursions across the NAS and at airports that predominantly handled their respective operations—OEP-35 and GA-35 airports. A summary of these findings is presented below.

Frequency—From FY 2000 through FY 2003, the downward trend in the total number of runway incursions began in FY 2001 and continued throughout the period. Progress was accompanied by a decrease of about two million operations per year since FY 2000. From FY 2002 through FY 2003, the number and rate of runway incursions across the United States began to level off.

Severity—The FAA has made progress toward its performance goal of reducing the total number of Category A and B runway incursions to no more than 27 Category A and B incursions annually by FY 2008. In FY 2003, there were 32 Category A and B runway incursions, which represents a decrease in the number of Category A and B events by 52 percent for the four-year period.

Operational Errors/Deviations—Reductions in the number and rate of total operational errors/deviations were not sustained over the four fiscal years. A decrease in operational errors/deviations in FY 2002 was followed by an increase in FY 2003 that occurred primarily at the OEP-35 airports and involved mostly Category C and D events. These airports reported a greater proportion (32 percent) of operational errors/deviations compared to the national distribution (23 percent).

Over the four-year period, 26 percent (50 events) of Category A and B runway incursions were operational errors/deviations, which is in proportion to the national distribution of operational errors/deviations. The number of Category A and B operational errors/deviations decreased by more than 50 percent during the period. The FAA has implemented technologies, such as AMASS, to prevent runway collisions and is investigating changes to airport infrastructure, such as perimeter taxiways, to reduce the number of runway crossings for additional risk mitigation.

Pilot Deviations—There was an overall reduction in the number and rate of total pilot deviations—the most common type of runway incursion—over the four-year period. GA-35 airports reported a greater proportion (64 percent) of pilot deviations compared to the national distribution (57 percent). But during this same period, the number and rate of pilot deviations at the GA-35 airports decreased. Over the four fiscal years, 58 percent (109 events) of Category A and B runway incursions were pilot deviations, which is in proportion to the national distribution of pilot deviations. The number of Category A and B pilot deviations decreased 66 percent during the period.

While the trend for the total number and rate of commercial runway incursions was inconsistent, the number of Category A and B COMM/COMM incursions decreased notably to four events in FY 2003. However, pilot deviations involving two general aviation aircraft comprised a large segment of Category A and B incursions during the four-year period.

With the help of aviation organizations, the FAA has developed programs to raise pilot awareness of runway incursions. The use of lower cost interventions, such as improved paint markings, is being explored to enhance airport infrastructure as well as pilot and vehicle operator situational awareness.

Vehicle/Pedestrian Deviations—There has been a slight decrease in the total number and rate of vehicle/pedestrian deviations since FY 2001. Over the four-year period, both the OEP-35 and the GA-35 airports reported a similar proportion (18 percent and 17 percent, respectively) compared to the national distribution (20 percent).

Of the 189 Category A and B runway incursions during this period, 16 percent (30 events) were vehicle/pedestrian deviations, which is in proportion to the national distribution of this type of runway incursion. The number of Category A and B vehicle/pedestrian deviations has shown a small increase since FY 2001. However, with such small numbers (in

FY 2000 there were seven Category A and B vehicle/pedestrian deviations and in FY 2003 there were nine) it is difficult to discern the significance of small variations. Regardless of small numbers, vehicle/pedestrian deviations can still be decreased. To further reduce the risk, the FAA has developed safety guides for the non-pilot vehicle operator and maintenance personnel to help reduce the number of maintenance taxi, tug, and tow incursions.

Future Directions—The FAA forecasts an increase in the number of operations over the next decade. Proactive safety initiatives will be required to further reduce the runway incursion rate and achieve the FAA's performance goal for runway safety. To achieve sustained runway safety performance, the FAA will continue to implement initiatives as identified in *FAA Flight Plan 2004–2008*. Flight Plan initiatives for runway safety are varied and include domestic and international projects; for example, supporting the development of a standard International Civil Aviation Organization (ICAO) definition of a runway incursion and a corresponding database to facilitate global harmonization of runway incursion risk reduction. Additionally, the FAA will need to identify new measures to anticipate emerging risks and develop safety management strategies to continue improving runway safety.

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# Appendices

**FAA Runway Safety Report**

**Runway Incursion Trends and Initiatives at Towered Airports
in the United States, FY 2000 – FY 2003**

## Contents

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## Appendix A. Glossary and Acronyms

### 1. Glossary

**Commercial Operations** — Scheduled or charter for-hire aircraft used to carry passengers or cargo. These aircraft are typically operated by airlines, air cargo, and charter services. This group of aircraft operations includes jet transports and commuter aircraft.

**Commuter** — An aircraft that is commercially operated by scheduled air carriers but is usually smaller and carries fewer passengers than the typical jet transport aircraft. Examples of commuter aircraft include the Embraer 120 and 145, and the Saab 340.

**Error Tolerance** — The degree to which a system detects and prevents the propagation of errors. In the context of runway safety, error tolerance is the degree to which the system detects and prevents the propogation of human error, procedural breakdowns, and technical failures to reduce the likelihood of a runway incursion becoming an accident.

**FAA Operational Evolution Plan (OEP)** — A collaborative implementation plan, led by the FAA with input from members of the entire aviation industry, centered on the evolution of capacity and efficiency improvements needed in the NAS to meet future air traffic demand over the next decade.

**General Aviation** — General Aviation operations encompass the full range of activity from student pilots to multi-hour, multi-rated pilots flying sophisticated aircraft for business or pleasure. This group of aircraft operations includes small general aviation aircraft (less than 12,500 lbs maximum takeoff weight) and large general aviation aircraft (maximum takeoff weight greater than or equal to 12,500 lbs). The small general aviation aircraft tend to be single-piloted aircraft, such as a Cessna 152 or Piper Cherokee. The large general aviation aircraft tend to be represented by corporate or executive aircraft with a two-person flight crew — for example a Cessna Citation C550 or Gulfstream V.

**Hold Short** — An air traffic control clearance to the pilot of an aircraft to not proceed beyond a designated point such as a specified runway or taxiway.

**Jet Transport** — Large airplanes that are commercially operated by scheduled air carriers. Examples of jet transports include the Boeing 737-, 747-, 757-, 767-series of aircraft, and the Airbus 300-, 310-series.

**Military Operations** — Any aircraft operated by the United States military.

**Operational Error** — An action by an air traffic controller that results in less than the required minimum separation between two or more aircraft, or between an aircraft and obstacle (e.g., vehicles, equipment, personnel on runways).

**Operational Deviation** — An occurrence attributable to an element of the air traffic system in which applicable separation minima were maintained, but an aircraft, vehicle, equipment, or personnel encroached upon a landing area that was delegated to another position of operation without prior coordination and approval.

**Pilot Deviation** — An action of a pilot that violates any Federal Aviation Regulation.

**Runway Incursion** — Any occurrence on the airport runway environment involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of required separation with an aircraft taking off, intending to take off, landing, or intending to land.

**Runway Incursion Error Type** — Operational error/deviation, pilot deviation, or vehicle/pedestrian deviation.

**Surface Incident** — Any event where unauthorized or unapproved movement occurs within the movement area, or an occurrence in the movement area associated with the operation of an aircraft that affects or could affect the safety of flight. A surface incident can occur anywhere on the airport's surface, including the runway. The FAA further classifies a surface incident as either a runway incursion or a non-runway incursion.

**Taxi Into Position And Hold** — An air traffic control instruction to a pilot of an aircraft to taxi onto the active departure runway, to hold in that position, and not take off until specifically cleared to do so.

**Vehicle/Pedestrian Deviation** — Vehicles or pedestrians moving on the runway movement area without authorization from air traffic control that interferes with aircraft operations.

## 2. Acronyms

| | |
|---|---|
| **AC** | Advisory Circular |
| **ALPA** | Air Line Pilots Association |
| **AMASS** | Airport Movement Area Safety System |
| **AOPA** | Aircraft Owners and Pilots Association |
| **ASDE-X** | Airport Surface Detection Equipment - Model X |
| **ATA** | Air Transport Association |
| **ATC** | Air Traffic Control |
| **ATIS** | Automated Terminal Information Service |
| **ATO** | Air Traffic Organization |
| **CAST** | Commercial Aviation Safety Team |
| **CBI** | Computer-Based Instruction |
| **CMMD** | Cockpit Moving-Map Display |
| **COMM** | Commercial Aviation Operations |
| **DOT** | Department of Transportation |
| **EAA** | Experimental Aircraft Association |
| **EFB** | Electronic Flight Bag |
| **FAA** | Federal Aviation Administration |
| **FALPA** | Federation of Air Line Pilots Association |
| **FSDO** | Flight Standards District Office |
| **FY** | Fiscal Year |
| **GA** | General Aviation Operations |
| **GPS** | Global Positioning System |
| **ICAO** | International Civil Aviation Organization |
| **IFALPA** | International Federation of Air Line Pilots Association |
| **IFR** | Instrument Flight Rules |
| **LAHSO** | Land And Hold Short Operations |
| **LORAN** | Long-Range Aids to Navigation |
| **MIL** | Military Operations |
| **NAS** | National Airspace System |
| **NASA** | National Aeronautical and Space Administration |
| **NOTAM** | Notice to All Airmen |
| **OEP** | Operational Evolution Plan |
| **RWSL** | Runway Status Lights |
| **SOP** | Standard Operating Procedures |
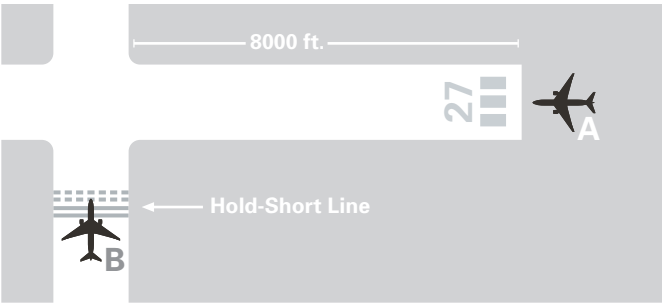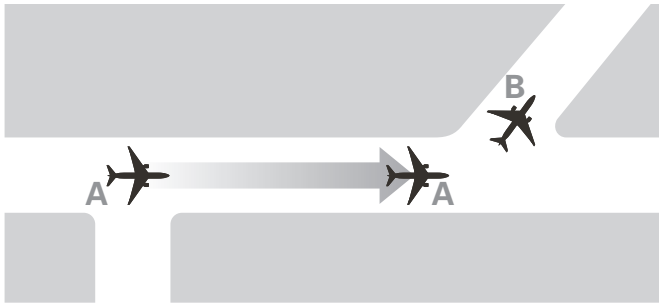
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## Appendix B

### 1. History of Runway Incursion Severity

In 2000, the FAA convened a government-industry team of aviation analysts with expertise in air traffic control, airway facilities, airports, flight standards, human factors, and system safety to conduct a systematic review and analysis of the 1,369 reported runway incursions that occurred from CY 1997 through CY 2000 and categorized these incidents in terms of severity. This analysis, presented in the June 2001 Runway Safety Report, provided the foundation for the continued analysis and classification of runway incursion severity. Since that time, the FAA Office of Runway Safety has continued to systematically review the reported runway incursions on a regular basis.

The following runway incursion profiles illustrate the importance of classifying runway incursion severity.

| CASE 1 | CASE 2 |
|---|---|
| This incident meets the definition of a runway incursion, but there is little or no chance of collision. | This is a severe situation where the margin of safety is so low that a collision is barely avoided. |



Aircraft A is on approach to Runway 27, an 8,000-foot runway. Aircraft B is taxiing to a parking area on the north side of the airport and has been instructed by air traffic control to "hold short of Runway 27" in anticipation of the arrival of Aircraft A. When Aircraft A is on a quarter mile final approach, Aircraft B's pilot informs the controller that he has accidentally crossed the hold-short line for Runway 27. Although he is not on the runway, the aircraft's nose is across the hold-short line, usually 175 feet from the runway.

A runway incursion has occurred since separation rules require that a runway be clear of any obstacle before an aircraft can land or take off on that runway. The controller instructs Aircraft A to "go around."

■ The potential for a collision is low, but by definition, a runway incursion has taken place.

■ This case exemplifies the most frequently reported runway incursions.

Aircraft A has been cleared to taxi into position and hold on Runway 9 following Aircraft B that has just landed on the same runway and is rolling out. Aircraft B is instructed to turn left at a taxiway. Aircraft B acknowledges. The controller observes Aircraft B exiting the runway and clears Aircraft A for takeoff. A moment later the controller notices too late that Aircraft B has not fully cleared the runway and in fact appears to have come to a complete stop with much of the aircraft still on the runway.

Aircraft A has accelerated to the point it cannot stop and has only the option to fly over the top of Aircraft B.

■ The potential for a collision is high and typifies the common perception of a runway incursion.

■ This case is more severe but occurs infrequently.

These examples demonstrate why more descriptive runway incursion categorizations were necessary to capture the different margins of safety—or, conversely, varying degrees of severity—associated with each runway incursion. An accurate portrayal of runway incursion severity trends is essential to finding solutions that target opportunities for error and mitigate the consequences of those errors that do happen.

## 2. Factors Considered in the Severity Categorization

■ Speed and performance of the aircraft

■ Distance between parties (horizontal and/or vertical)

■ Location of aircraft, vehicle, or object on the actual runway or on a taxiway inside the runway holding position markings

■ Type and extent of evasive action

■ Was the party on the ground stopped or moving?

■ Knowledge of the other party's location

■ Visibility conditions

■ Night vs. day

■ Runway conditions (e.g., wet, snow covered)

■ Status of radio communications

## 3. Unclassified Event

Data for the one unclassified runway incursion (FY 2000 through FY 2003)

| Airport | Airport ID | Year | Runway Incursion Type | Aircraft Operations Pair |
|---|---|---|---|---|
| Pittsburgh International Airport, Pittsburgh | PIT | 2001 | OE | JT/GA |

One of the 1,475 runway incursions did not contain enough information to support a reliable categorization of severity. This event is identified in this table for completeness.

## 4. Runway Collisions

Data for the Seven Runway Collisions (FY 2000 through FY 2003)

| Date of Incident | Airport ID | Airport Location | Brief Summary |
|---|---|---|---|
| 3/9/00 | SRQ | Sarasota-Bradenton, FL | A general aviation aircraft on takeoff roll collided with another general aviation aircraft that was placed into position and hold at an intersection on the same runway. There were four fatalities in this collision. |
| 5/10/00 | FLL | Ft. Lauderdale, FL | A jet transport making an emergency landing on a closed runway hit a "closed runway" sign on the approach end of the runway. No fatalities. |
| 10/12/01 | VNY | Van Nuys, CA | A general aviation aircraft landed and collided with another general aviation aircraft that was holding in position to take off at an intersection. No fatalities. |
| 4/6/02 | LAL | Lakeland, FL | A general aviation aircraft landed on the wrong runway and collided with another general aviation aircraft that had previously landed on the same runway. No fatalities. |
| 5/10/03 | EWR | Newark Intl, NJ | A jet transport was cleared for takeoff on a NOTAMED closed runway with men and equipment on the runway. There were orange plastic cones 2 to 3 feet in height being used as a barrier and the jet transport hit 3 cones on departure roll. No aircraft damage was reported. No fatalities. |
| 8/1/03 | OSH | Wittman Rgnl, Oshkosh, WI | An experimental general aviation aircraft was cleared to land. Due to the Experimental Aircraft Association (EAA) convention, a waiver had been issued for reduced runway separation allowing more than one aircraft to land on the runway. Another general aviation aircraft, on 3/4 mile final, was also cleared to land on the same runway following the experimental aircraft. After landing, the general aviation aircraft locked his brakes and struck the experimental aircraft as it was exiting the runway on the left side of the runway into the grass. No fatalities. |
| 9/23/03 | VGT | North Las Vegas Arpt, NV | A general aviation aircraft was cleared to land and, one minute later, local control cleared another general aviation aircraft for takeoff from an intersecting runway. The planes collided at the intersection of the runways. No fatalities. |

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## Appendix C

### 1. OEP-35 Airports

| Airport Code | Airport Name, City |
|---|---|
| ATL | Hartsfield - Jackson Atlanta International Airport, Atlanta |
| BOS | Boston - Logan International Airport, Boston |
| BWI | Baltimore - Washington International Airport, Baltimore |
| CLE | Cleveland Hopkins International Airport, Cleveland |
| CLT | Charlotte - Douglas International Airport, Charlotte |
| CVG | Cincinnati/Northern Kentucky International Airport, Covington/Cincinnati |
| DCA | Ronald Reagan Washington National Airport, Washington |
| DEN | Denver International Airport, Denver |
| DFW | Dallas / Fort Worth International Airport, Dallas |
| DTW | Detroit Metropolitan Wayne County International Airport, Detroit |
| EWR | Newark Liberty International Airport, Newark |
| FLL | Fort Lauderdale - Hollywood International Airport, Fort Lauderdale |
| HNL | Honolulu International Airport, Honolulu |
| IAD | Washington Dulles International Airport, Sterling |
| IAH | George Bush Intercontinental Airport, Houston |
| JFK | John F. Kennedy International Airport, New York City |
| LAS | McCarran International Airport, Las Vegas |
| LAX | Los Angeles International Airport, Los Angeles |
| LGA | LaGuardia Airport, New York City |
| MCO | Orlando International Airport, Orlando |
| MDW | Midway Airport, Chicago |
| MEM | Memphis International Airport, Memphis |
| MIA | Miami International Airport, Miami |
| MSP | Minneapolis - St. Paul International Airport, Minneapolis |
| ORD | O'Hare International Airport, Chicago |
| PDX | Portland International Airport, Portland |
| PHL | Philadelphia International Airport, Philadelphia |
| PHX | Phoenix - Sky Harbor International Airport, Phoenix |
| PIT | Pittsburgh International Airport, Pittsburgh |
| SAN | San Diego International - Lindbergh Field, San Diego |
| SEA | Seattle - Tacoma International Airport, Seattle |
| SFO | San Francisco International Airport, San Francisco |
| SLC | Salt Lake City International Airport, Salt Lake City |
| STL | Lambert - St. Louis International Airport, St. Louis |
| TPA | Tampa International Airport, Tampa |

## 2. GA-35 Airports

| Airport Code | Airport Name, City |
|---|---|
| APA | Denver - Centennial Airport, Denver |
| BFI | Boeing Field - King County International Airport, Seattle |
| CDW | Essex County Airport, Caldwell |
| CHD | Chandler Municipal Airport, Chandler |
| CRQ | McClellan - Palomar Airport, Carlsbad |
| DAB | Daytona Beach International Airport, Daytona Beach |
| DPA | Dupage Airport, Chicago/West Chicago |
| DVT | Deer Valley Municipal Airport, Phoenix |
| DWH | David Wayne Hooks Memorial Airport, Houston |
| FFZ | Mesa - Falcon Field, Mesa |
| FRG | Farmingdale Republic Airport, Farmingdale |
| FTW | Fort Worth Meacham International Airport, Fort Worth |
| FXE | Fort Lauderdale - Executive Airport, Fort Lauderdale |
| GFK | Grand Forks International Airport, Grand Forks |
| HIO | Hillsboro Airport, Hillsboro |
| LGB | Long Beach - Daugherty Field, Long Beach |
| LVK | Livermore Municipal Airport, Livermore |
| MMU | Morristown Municipal Airport, Morristown |
| MYF | San Diego - Montgomery Field, San Diego |
| OAK | Metropolitan Oakland International Airport, Oakland |
| ORL | Orlando - Executive Airport, Orlando |
| PAE | Snohomish County - Paine Field, Everett |
| PAO | Palo Alto Airport of Santa Clara County, Palo Alto |
| PDK | Dekalb - Peachtree Airport, Atlanta |
| POC | Brackett Field, La Verne |
| PRC | Love Airport, Prescott |
| PTK | Oakland County International Airport, Pontiac |
| RHV | Reid-Hillview Airport of Santa Clara County, San Jose |
| RVS | Richard Lloyd Jones, Jr. Airport, Tulsa |
| SDL | Scottsdale Airport, Scottsdale |
| SFB | Orlando - Sanford International Airport, Orlando |
| SNA | John Wayne - Orange County Airport, Santa Ana |
| TEB | Teterboro Airport, Teterboro |
| VNY | Van Nuys Airport, Van Nuys |
| VRB | Vero Beach Municipal Airport, Vero Beach |

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*NOTE: Five general aviation airports—airports with at least 90 percent general aviation operations—that are not included in the GA-35 airports reported 11 or more runway incursions over the four-year period.  The five airports—North Las Vegas (VGT), Concord-Buchanan Field (CCR), Merrill Field (MRI), Minneapolis Flying Cloud (FCM), and Denver-Jeffco Airport (BJC)—reported between 11 and 33 runway incursions for the four-year period.*

### 3. Airports Slated to Receive AMASS/ASDE-X Systems

| Airport Code | Airport Name, City | AMASS | ASDE-X |
|---|---|---|---|
| ABQ | Albuquerque International Sunport, Albuquerque | | X |
| ADW | Andrews Air Force Base, Clinton | X | |
| ANC | Anchorage - Ted Stevens International Airport, Anchorage | X | |
| ATL | Hartsfield - Jackson Atlanta International Airport, Atlanta | X | |
| AUS | Austin - Bergstrom International Airport, Austin | | X |
| BDL | Bradley International Airport, Windsor Locks | | X |
| BOS | Boston - Logan International Airport, Boston | X | |
| BUR | Burbank - Glendale - Pasadena Airport, Burbank | | X |
| BWI | Baltimore - Washington International Airport, Baltimore | X | |
| CLE | Cleveland Hopkins International Airport, Cleveland | X | |
| CLT | Charlotte - Douglas International Airport, Charlotte | X | X |
| CMH | Port Columbus International Airport, Columbus | | X |
| COS | City of Colorado Springs Municipal Airport, Colorado Springs | | X |
| CVG | Cincinnati/Northern Kentucky International Airport, Covington/Cincinnati | X | |
| DCA | Ronald Reagan Washington National Airport, Washington | X | |
| DEN | Denver International Airport, Denver | X | |
| DFW | Dallas/ Fort Worth International Airport, Dallas | X | |
| DTW | Detroit Metropolitan Wayne County International Airport, Detroit | X | |
| EWR | Newark International Airport, Newark | X | |
| FLL | Fort Lauderdale - Hollywood International Airport, Fort Lauderdale | | X |
| HNL | Honolulu International Airport, Honolulu | | X |
| HOU | William P. Hobby Airport, Houston | | X |
| IAD | Washington Dulles International Airport, Sterling | X | |
| IAH | George Bush Intercontinental Airport, Houston | X | |
| IND | Indianapolis International Airport, Indianapolis | | X |
| JFK | John F. Kennedy International Airport, New York City | X | |
| LAS | McCarran International Airport, Las Vegas | X | |
| LAX | Los Angeles International Airport, Los Angeles | X | |
| LGA | LaGuardia Airport, New York City | X | |
| MCI | Kansas City International Airport, Kansas City | X | |
| MCO | Orlando International Airport, Orlando | | X |
| MDW | Midway Airport, Chicago | | X |
| MEM | Memphis International Airport, Memphis | X | |
| MIA | Miami International Airport, Miami | X | |
| MKE | General Mitchell International Airport, Milwaukee | | X |
| MSP | Minneapolis - St. Paul International Airport, Minneapolis | X | |
| MSY | Louis Armstrong - New Orleans International Airport, New Orleans | X | |
| OAK | Metropolitan Oakland International Airport, Oakland | | X |
| ONT | Ontario International Airport, Ontario | | X |
| ORD | O'Hare International Airport, Chicago | X | |

**Airports Slated to Receive AMASS/ASDE-X Systems** – continued

| Airport Code | Airport Name, City | AMASS | ASDE-X |
|---|---|---|---|
| **PDX** | Portland International Airport, Portland | X | |
| **PHL** | Philadelphia International Airport, Philadelphia | X | |
| **PHX** | Phoenix - Sky Harbor International Airport, Phoenix | | X |
| **PIT** | Pittsburgh International Airport, Pittsburgh | X | |
| **PVD** | T.F. Green Airport, Providence | | X |
| **RDU** | Raleigh - Durham International Airport, Raleigh/Durham | | X |
| **RNO** | Reno/Tahoe International Airport, Reno | | X |
| **SAN** | San Diego International - Lindbergh Field, San Diego | X | |
| **SAT** | San Antonio International Airport, San Antonio | | X |
| **SDF** | Louisville International Airport - Standiford Field, Louisville | X | |
| **SEA** | Seattle - Tacoma International Airport, Seattle | X | |
| **SFO** | San Francisco International Airport, San Francisco | X | |
| **SJC** | San Jose International Airport, San Jose | | X |
| **SJU** | Luis Muñoz Marin International Airport, San Juan | | X |
| **SLC** | Salt Lake City International Airport, Salt Lake City | X | |
| **SMF** | Sacramento International Airport, Sacramento | | X |
| **SNA** | John Wayne - Orange County Airport, Santa Ana | | X |
| **STL** | Lambert - St. Louis International Airport, St. Louis | X | |
| **TPA** | Tampa International Airport, Tampa | | X |

**4. Runway Incursion Types at OEP-35 and GA-35 Airports**

**4.1 Operational Errors/Deviations**

*National Operational Errors/Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 41 | 44 | 34 | 42 | **161** |
| Category C | 23 | 32 | 33 | 39 | **127** |
| Category B | 13 | 7 | 6 | 5 | **31** |
| Category A | 6 | 7 | 2 | 4 | **19** |
| Insufficient Data | 0 | 1 | 0 | 0 | **1** |
| **National Total** | **83** | **91** | **75** | **90** | **339** |

*OEP-35 Airports — Operational Errors/Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 10 | 16 | 5 | 20 | **51** |
| Category C | 11 | 15 | 7 | 19 | **52** |
| Category B | 8 | 3 | 0 | 2 | **13** |
| Category A | 3 | 3 | 0 | 1 | **7** |
| Insufficient Data | 0 | 1 | 0 | 0 | **1** |
| **OEP-35 Airports Total** | **32** | **38** | **12** | **42** | **124** |

*GA-35 Airports — Operational Errors/Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 6 | 7 | 7 | 4 | **24** |
| Category C | 4 | 5 | 4 | 5 | **18** |
| Category B | 0 | 1 | 1 | 0 | **2** |
| Category A | 1 | 2 | 1 | 1 | **5** |
| Insufficient Data | 0 | 0 | 0 | 0 | **0** |
| **GA-35 Airports Total** | **11** | **15** | **13** | **10** | **49** |

**4.2 Pilot Deviations**

*National Pilot Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 111 | 111 | 120 | 99 | **441** |
| Category C | 95 | 88 | 51 | 61 | **295** |
| Category B | 28 | 22 | 14 | 11 | **75** |
| Category A | 13 | 12 | 6 | 3 | **34** |
| **National Total** | **247** | **233** | **191** | **174** | **845** |

*OEP-35 Airports — Pilot Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 12 | 18 | 28 | 23 | **81** |
| Category C | 27 | 19 | 10 | 16 | **72** |
| Category B | 13 | 9 | 5 | 2 | **29** |
| Category A | 4 | 3 | 1 | 0 | **8** |
| **OEP-35 Airports Total** | **56** | **49** | **44** | **41** | **190** |

*GA-35 Airports — Pilot Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 26 | 25 | 25 | 17 | **93** |
| Category C | 17 | 13 | 11 | 12 | **53** |
| Category B | 2 | 4 | 3 | 4 | **13** |
| Category A | 1 | 1 | 2 | 0 | **4** |
| **GA-35 Airports Total** | **46** | **43** | **41** | **33** | **163** |

**4.3 Vehicle/Pedestrian Deviations**

*National Vehicle/Pedestrian Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 38 | 55 | 54 | 40 | **187** |
| Category C | 30 | 23 | 10 | 11 | **74** |
| Category B | 2 | 4 | 7 | 6 | **19** |
| Category A | 5 | 1 | 2 | 3 | **11** |
| **National Total** | **75** | **83** | **73** | **60** | **291** |

*OEP-35 Airports — Vehicle/Pedestrian Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 4 | 10 | 10 | 13 | **37** |
| Category C | 9 | 8 | 4 | 3 | **24** |
| Category B | 1 | 2 | 3 | 1 | **7** |
| Category A | 1 | 0 | 1 | 1 | **3** |
| **OEP-35 Airports Total** | **15** | **20** | **18** | **18** | **71** |

*GA-35 Airports — Vehicle/Pedestrian Deviations*

|  | FY 2000 | FY 2001 | FY 2002 | FY 2003 | Total |
|---|---|---|---|---|---|
| Category D | 9 | 11 | 10 | 3 | **33** |
| Category C | 3 | 1 | 2 | 1 | **7** |
| Category B | 0 | 0 | 1 | 1 | **2** |
| Category A | 0 | 0 | 0 | 0 | **0** |
| **GA-35 Airports Total** | **12** | **12** | **13** | **5** | **42** |

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## Appendix D – Runway Incursion Data by Airport for FY 2000 through FY 2003 (Sorted Alphabetically by State)

Annual number, rate, and severity of runway incursions (RI) and the annual number of surface incidents (SI) for U.S. towered airports that reported at least one RI or SI from FY 2000 through FY 2003 are presented in the following table.  Rates are given per 100,000 operations.

**Definition of Table Headers:**

**State:** Denotes the State where the airport of interest is located
**Airport, City (Airport Code):** Denotes the airport name, city location, and airport code
**Region:** Denotes the FAA geographical region where the airport is located
**Severity:** Identifies the corresponding RI category for each airport
**Total RIs/SIs:** Denotes the number of RIs and SIs
**Annual RI Rate:** The annual rate of runway incursions per 100,000 operations at each airport

**ALABAMA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Birmingham International Airport, Birmingham (BHM) | ASO | 2000 | | 1 | | | | | 1 | 0.65 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 2 | | 2 | 1.37 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.65 | 10 |
| Huntsville International Airport - Carl T. Jones Field, Huntsville (HSV) | ASO | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | 1 | | 1 | 1.04 | 2 |
| Mobile Regional Airport, Mobile (MOB) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Montgomery Regional Airport, Montgomery (MGM) | ASO | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | 1 | | 1 | 1.01 | 0 |
| | | 2002 | | | | 1 | | | 1 | 1.18 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Tuscaloosa Municipal Airport, Tuscaloosa (TCL) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| ALASKA | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
| Anchorage - Ted Stevens International Airport, Anchorage (ANC) | AAL | 2000 | | | | 1 | 1 | | 2 | 0.63 | 9 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | | | | 2 | 5 | | 7 | 2.30 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Bethel Airport, Bethel (BET) | AAL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | | | | | | | 0 | 0.00 | 4 |
| | | 2003 | | | | 1 | 1 | | 2 | 1.77 | 0 |
| Fairbanks International Airport, Fairbanks (FAI) | AAL | 2000 | | | | 2 | 1 | | 3 | 2.21 | 7 |
| | | 2001 | | | | | 1 | | 1 | 0.73 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 9 |
| | | 2003 | | | | | 3 | | 3 | 2.16 | 5 |
| Juneau International Airport, Juneau (JNU) | AAL | 2000 | | | | | 1 | | 1 | 0.69 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.77 | 1 |
| | | 2003 | | | | | 1 | | 1 | 0.78 | 1 |
| Kenai Municipal Airport, Kenai (ENA) | AAL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | | | 1 | 1.72 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| King Salmon Airport, King Salmon (AKN) | AAL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Kodiak Airport, Kodiak (ADQ) | AAL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 1 | | 1 | 3.19 | 4 |
| | | 2003 | | | | | 1 | | 1 | 3.03 | 0 |
| Lake Hood Sea Plane Base, Anchorage (LHD) | AAL | 2000 | | | | | 1 | | 1 | 1.10 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 6 |
| | | 2002 | | | | | 1 | | 1 | 1.44 | 10 |
| | | 2003 | | | | 1 | 3 | | 4 | 5.37 | 5 |
| Merrill Field, Anchorage (MRI) | AAL | 2000 | | | | 1 | 5 | | 6 | 3.18 | 21 |
| | | 2001 | | | 1 | 3 | 2 | | 6 | 3.19 | 13 |
| | | 2002 | | | 1 | 1 | 1 | | 3 | 1.72 | 19 |
| | | 2003 | | | | | 1 | | 1 | 0.49 | 10 |

**AMERICAN SAMOA**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Severity | | | | | | | |
| Pago Pago International Airport, Pago Pago (PPG) | AWP | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 8.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

**ARIZONA**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Severity | | | | | | | |
| Chandler Municipal Airport, Chandler (CHD) | AWP | 2000 | | | | | 1 | | 1 | 0.41 | 4 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.83 | 6 |
| | | 2002 | | | | | 2 | | 2 | 0.89 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Deer Valley Municipal Airport, Phoenix (DVT) | AWP | 2000 | | | | 2 | | | 2 | 0.57 | 4 |
| | | 2001 | | | | | 2 | | 2 | 0.59 | 4 |
| | | 2002 | | | | 2 | 1 | | 3 | 0.76 | 3 |
| | | 2003 | | | | 2 | | | 2 | 0.52 | 3 |
| Flagstaff Pulliam Field, Flagstaff (FLG) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Gila Bend Air Force Aux, Gila Bend (GBN) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Glendale Municipal Airport, Glendale (GEU) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.90 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Laughlin - Bullhead International Airport, Bullhead City (IFP) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | 1 | 1 | 1 | 2 | | 5 | 9.65 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Love Airport, Prescott (PRC) | AWP | 2000 | | | 1 | | 1 | | 2 | 0.61 | 5 |
| | | 2001 | | | 1 | 1 | 4 | | 6 | 1.89 | 1 |
| | | 2002 | | | | | 2 | | 2 | 0.59 | 3 |
| | | 2003 | | | | | 4 | | 4 | 1.29 | 2 |
| Mesa - Falcon Field, Mesa (FFZ) | AWP | 2000 | | | | 1 | | | 1 | 0.36 | 5 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.78 | 2 |
| | | 2002 | | | | | 3 | | 3 | 1.10 | 3 |
| | | 2003 | | | | | 1 | | 1 | 0.35 | 4 |

**ARIZONA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | Severity A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Phoenix - Sky Harbor International Airport, Phoenix (PHX) | AWP | 2000 | | 1 | 2 | 3 | 1 | | 7 | 1.12 | 9 |
| | | 2001 | | | 1 | 4 | 5 | | 10 | 1.59 | 7 |
| | | 2002 | | 1 | | 1 | 4 | | 6 | 1.04 | 0 |
| | | 2003 | | | | | 2 | | 2 | 0.34 | 2 |
| Phoenix Goodyear Airport, Phoenix (GYR) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.49 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | 1 | | | 1 | 0.75 | 3 |
| Scottsdale Airport, Scottsdale (SDL) | AWP | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.53 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Tucson International Airport, Tucson (TUS) | AWP | 2000 | | | 1 | | 1 | | 2 | 0.77 | 2 |
| | | 2001 | | | | 2 | | | 2 | 0.78 | 4 |
| | | 2002 | | | | 1 | 2 | | 3 | 1.13 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Williams Gateway Airport, Phoenix (IWA) | AWP | 2000 | | | | | 1 | | 1 | 0.58 | 0 |
| | | 2001 | | | | 1 | 2 | | 3 | 1.87 | 2 |
| | | 2002 | | | | | 2 | | 2 | 1.16 | 4 |
| | | 2003 | | | | | 1 | | 1 | 0.56 | 3 |

**ARKANSAS**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | Severity A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fort Smith Regional Airport, Fort Smith (FSM) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Little Rock - Adams Field, Little Rock (LIT) | ASW | 2000 | | | | | 1 | | 1 | 0.55 | 1 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.15 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | 1 | | 1 | 0.57 | 3 |
| Northwest Arkansas Regional Airport, Fayetteville (XNA) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

**CALIFORNIA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Brackett Field, La Verne (POC) | AWP | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | | 1 | | | | 1 | 0.43 | 6 |
| | | 2002 | | | 1 | 2 | | | 3 | 1.20 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| Brown Field Municipal Airport, San Diego (SDM) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Bob Hope Airport, Burbank (BUR) | AWP | 2000 | | | | 1 | 1 | | 2 | 1.23 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | 1 | 1 | | 2 | 1.24 | 1 |
| | | 2003 | | | | 1 | 1 | | 2 | 1.14 | 1 |
| Camarillo Airport, Camarillo (CMA) | AWP | 2000 | | | | 1 | 1 | | 2 | 1.07 | 13 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.12 | 9 |
| | | 2002 | | | | | 2 | | 2 | 1.01 | 14 |
| | | 2003 | | | | | 1 | | 1 | 0.51 | 12 |
| Chino Airport, Chino (CNO) | AWP | 2000 | | | | | | | 0 | 0.00 | 8 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.34 | 5 |
| | | 2002 | | 1 | | | 1 | | 2 | 1.27 | 11 |
| | | 2003 | | | | | 5 | | 5 | 3.22 | 3 |
| Concord - Buchanan Field, Concord (CCR) | AWP | 2000 | | | | 2 | 1 | | 3 | 1.39 | 5 |
| | | 2001 | | | | 3 | 10 | | 13 | 8.35 | 6 |
| | | 2002 | | 1 | 1 | | 4 | | 6 | 4.22 | 1 |
| | | 2003 | | | | 1 | 6 | | 7 | 5.61 | 3 |
| El Monte Airport, El Monte (EMT) | AWP | 2000 | | | | | 2 | | 2 | 1.23 | 4 |
| | | 2001 | | | | | 1 | | 1 | 0.57 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Fresno - Yosemite International Airport, Fresno (FAT) | AWP | 2000 | | | | | 1 | | 1 | 0.37 | 6 |
| | | 2001 | | | 1 | 2 | 3 | | 6 | 2.05 | 5 |
| | | 2002 | | | | | 4 | | 4 | 2.40 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Fullerton Municipal Airport, Fullerton (FUL) | AWP | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.99 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| General William J. Fox Airfield, Lancaster (WJF) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| CALIFORNIA – continued | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Hawthorne Municipal - Northrop Field, Hawthorne (HHR) | AWP | 2000 | | 1 | | | | | 1 | 1.26 | 5 |
| | | 2001 | | | | | 1 | | 1 | 1.30 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Hayward Executive Airport, Hayward (HWD) | AWP | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.66 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| John Wayne - Orange County Airport, Santa Ana (SNA) | AWP | 2000 | | | | 4 | 5 | | 9 | 2.18 | 15 |
| | | 2001 | | | | 4 | 8 | | 12 | 3.11 | 13 |
| | | 2002 | | | | 2 | 2 | | 4 | 1.06 | 7 |
| | | 2003 | | | | | 1 | | 1 | 0.28 | 3 |
| Livermore Municipal Airport, Livermore (LVK) | AWP | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Long Beach - Daugherty Field, Long Beach (LGB) | AWP | 2000 | | 1 | | 1 | 6 | | 8 | 1.94 | 20 |
| | | 2001 | | | | 1 | 5 | | 6 | 1.66 | 12 |
| | | 2002 | | | | 1 | 4 | | 5 | 1.42 | 5 |
| | | 2003 | | | 1 | 1 | 4 | | 6 | 1.77 | 7 |
| Los Angeles - Whiteman Field, Los Angeles (WHP) | AWP | 2000 | | | | 2 | | | 2 | 1.41 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.89 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Los Angeles International Airport, Los Angeles (LAX) | AWP | 2000 | | 2 | 4 | 4 | | | 10 | 1.28 | 16 |
| | | 2001 | | | 3 | 3 | 3 | | 9 | 1.15 | 12 |
| | | 2002 | | | 2 | 2 | 2 | | 6 | 0.94 | 10 |
| | | 2003 | | | | 1 | 8 | | 9 | 1.43 | 7 |
| McClellan - Palomar Airport, Carlsbad (CRQ) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Meadows Field, Bakersfield (BFL) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.54 | 0 |
| | | 2002 | | | 1 | | | | 1 | 0.63 | 0 |
| | | 2003 | | | 1 | | 1 | | 2 | 1.48 | 3 |
| Metropolitan Oakland International Airport, Oakland (OAK) | AWP | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | 1 | 2 | | 3 | 0.73 | 14 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | Severity | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | A | B | C | D | ID | | | |
| Modesto City County - Harry Sham Field, Modesto (MOD) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Monterey Peninsula Airport, Monterey (MRY) | AWP | 2000 | | | 1 | | 1 | | 2 | 1.90 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Napa County Airport, Napa (APC) | AWP | 2000 | | | | | 1 | | 1 | 0.64 | 7 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.80 | 1 |
| Norman Y. Mineta San Jose International Airport, San Jose (SJC) | AWP | 2000 | | | 1 | 2 | 3 | | 6 | 2.01 | 14 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.70 | 12 |
| | | 2002 | | | | | 1 | | 1 | 0.44 | 18 |
| | | 2003 | | | | | 1 | | 1 | 0.46 | 4 |
| Ontario International Airport, Ontario (ONT) | AWP | 2000 | | | | 1 | | | 1 | 0.65 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | 5 | | 5 | 3.43 | 2 |
| Palm Springs International Airport, Palm Springs (PSP) | AWP | 2000 | | | 1 | 1 | | | 2 | 1.98 | 8 |
| | | 2001 | | | | 1 | 2 | | 3 | 3.07 | 8 |
| | | 2002 | | | | | 2 | | 2 | 1.85 | 5 |
| | | 2003 | | | | | 1 | | 1 | 1.05 | 1 |
| Palmdale Regional Airport, Palmdale (PMD) | AWP | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 2.48 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Palo Alto Airport of Santa Clara County, Palo Alto (PAO) | AWP | 2000 | | | | | 1 | | 1 | 0.51 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.47 | 0 |
| Redding Municipal Airport, Redding (RDD) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Reid-Hillview Airport of Santa Clara County, San Jose (RHV) | AWP | 2000 | | | | 1 | | | 1 | 0.44 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.43 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Riverside Municipal Airport, Riverside (RAL) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | 1 | | | | 1 | 0.96 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Sacramento Executive Airport, Sacramento (SAC) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | 1 | | 1 | | 2 | 1.59 | 0 |
| Sacramento International Airport, Sacramento (SMF) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Salinas Municipal Airport, Salinas (SNS) | AWP | 2000 | | 1 | | | | | 1 | 1.14 | 2 |
| | | 2001 | | | | 1 | | | 1 | 1.15 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| San Carlos Airport, San Carlos (SQL) | AWP | 2000 | | | | 1 | | | 1 | 0.60 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| San Diego - Gillespie Field, San Diego (SEE) | AWP | 2000 | | | | 2 | | | 2 | 1.04 | 9 |
| | | 2001 | | | | 1 | | | 1 | 0.56 | 11 |
| | | 2002 | | | | | 1 | | 1 | 0.55 | 4 |
| | | 2003 | | | | | | | 0 | 0.00 | 5 |
| San Diego - Montgomery Field, San Diego (MYF) | AWP | 2000 | | | 1 | 1 | 5 | | 7 | 2.63 | 20 |
| | | 2001 | | | | | 3 | | 3 | 1.37 | 4 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.83 | 3 |
| | | 2003 | | | | 1 | | | 1 | 0.45 | 0 |
| San Diego International Airport - Lindbergh Field, San Diego (SAN) | AWP | 2000 | | | | | 1 | | 1 | 0.48 | 1 |
| | | 2001 | | | 1 | | 2 | | 3 | 1.41 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | 1 | 1 | | 2 | 0.97 | 1 |
| San Francisco International Airport, San Francisco (SFO) | AWP | 2000 | | | 1 | 1 | 4 | | 6 | 1.37 | 9 |
| | | 2001 | | | | 2 | | | 2 | 0.49 | 9 |
| | | 2002 | | | | 1 | 3 | | 4 | 1.14 | 4 |
| | | 2003 | | | | 2 | 1 | | 3 | 0.89 | 0 |
| Santa Barbara Municipal Airport, Santa Barbara (SBA) | AWP | 2000 | | | | 2 | 4 | | 6 | 3.62 | 8 |
| | | 2001 | | | | 2 | 1 | | 3 | 1.82 | 8 |
| | | 2002 | | | 1 | | 1 | | 2 | 1.24 | 8 |
| | | 2003 | | | | 2 | 2 | | 4 | 2.59 | 6 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CALIFORNIA** – continued | | | | | | | | | | | |
| Santa Maria Public - Hancock Field, Santa Maria (SMX) | AWP | 2000 | | | | | 1 | | 1 | 0.60 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | 1 | | | | | 1 | 0.62 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Santa Monica Municipal Airport, Santa Monica (SMO) | AWP | 2000 | | | | 1 | | | 1 | 0.52 | 6 |
| | | 2001 | | | | | 2 | | 2 | 1.28 | 5 |
| | | 2002 | | | 1 | 2 | | | 3 | 2.02 | 4 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Sonoma County Airport, Santa Rosa (STS) | AWP | 2000 | | | | | 1 | | 1 | 0.73 | 10 |
| | | 2001 | | | | 2 | | | 2 | 1.44 | 11 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |
| | | 2003 | | | | 1 | | | 1 | 0.85 | 0 |
| Stockton Metropolitan Airport, Stockton (SCK) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Van Nuys Airport, Van Nuys (VNY) | AWP | 2000 | | | | 1 | 1 | | 2 | 0.38 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | 1 | | | | 4 | | 5 | 1.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Zamperini Field, Torrance (TOA) | AWP | 2000 | | | | 1 | | | 1 | 0.54 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COLORADO** | | | | | | | | | | | |
| Aspen - Pitkin County / Sardy Field, Aspen (ASE) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | 1 | 1 | | | 2 | 4.25 | 0 |
| | | 2003 | | | | 1 | 1 | | 2 | 4.57 | 0 |
| City of Colorado Springs Municipal Airport, Colorado Springs (COS) | ANM | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Denver - Centennial Airport, Denver (APA) | ANM | 2000 | | | | 1 | 2 | | 3 | 0.72 | 12 |
| | | 2001 | | | | | 1 | | 1 | 0.27 | 4 |
| | | 2002 | | | | | 2 | | 2 | 0.47 | 1 |
| | | 2003 | | | | 2 | 3 | | 5 | 1.34 | 1 |

| COLORADO – continued | | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport, City (Airport Code) | Region | | | | | | | | | | |
| Denver - Jeffco Airport, Denver (BJC) | ANM | 2000 | | | 1 | | 5 | | 6 | 3.33 | 29 |
| | | 2001 | | | | | 2 | | 2 | 1.21 | 14 |
| | | 2002 | | | | 1 | 1 | | 2 | 1.10 | 5 |
| | | 2003 | | | 1 | | 1 | | 2 | 1.18 | 4 |
| Denver International Airport, Denver (DEN) | ANM | 2000 | | | | 1 | 1 | | 2 | 0.38 | 4 |
| | | 2001 | | | | 1 | | | 1 | 0.19 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.20 | 1 |
| | | 2003 | | | | 1 | | | 1 | 0.20 | 0 |
| Eagle County Regional Airport, Eagle (EGE) | ANM | 2000 | | | | 1 | | | 1 | 2.54 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Pueblo Memorial Airport, Pueblo (PUB) | ANM | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Walker Field, Grand Junction (GJT) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| CONNECTICUT | | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport, City (Airport Code) | Region | | | | | | | | | | |
| Bradley International Airport, Windsor Locks (BDL) | ANE | 2000 | | | 1 | | | | 1 | 0.57 | 2 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.17 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |
| Danbury Municipal Airport, Danbury (DXR) | ANE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 2 | | 2 | 1.80 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Groton - New London Airport, Groton (GON) | ANE | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | 1 | | 2 | 2.55 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Igor I. Sikorsky Memorial Airport, Bridgeport (BDR) | ANE | 2000 | | | | 2 | 1 | | 3 | 3.33 | 0 |
| | | 2001 | | | | 1 | 2 | | 3 | 3.31 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

## CONNECTICUT – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Severity** | | | | | | | |
| Tweed - New Haven Airport, New Haven (HVN) | ANE | 2000 | | | | 1 | | | 1 | 1.67 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Waterbury - Oxford Airport, Oxford (OXC) | ANE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## DELAWARE

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Severity** | | | | | | | |
| New Castle County Airport, Wilmington (ILG) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.75 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.84 | 0 |

## DISTRICT OF COLUMBIA

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Severity** | | | | | | | |
| Ronald Reagan Washington National Airport, Washington (DCA) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | 1 | 1 | 1 | 1 | | 4 | 1.22 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## FLORIDA

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **Severity** | | | | | | | |
| Albert Whitted Airport, St. Petersburg (SPG) | ASO | 2000 | | | | | | | 0 | 0.00 | 8 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 1.01 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Boca Raton Airport, Boca Raton (BCT) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | 1 | | 1 | 1.11 | 0 |
| Cecil Field, Jacksonville (VQQ) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | 1 | | | 1 | | 2 | 0.00 | 1 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Craig Municipal Airport, Jacksonville (CRG) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.59 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Daytona Beach International Airport, Daytona Beach (DAB) | ASO | 2000 | | | | 1 | 2 | | 3 | 0.82 | 2 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.54 | 1 |
| | | 2002 | | | 1 | | | | 1 | 0.28 | 0 |
| | | 2003 | | | | 1 | 1 | | 2 | 0.59 | 1 |
| Fort Lauderdale - Executive Airport, Fort Lauderdale (FXE) | ASO | 2000 | | | | 2 | 2 | | 4 | 1.54 | 20 |
| | | 2001 | | | 1 | 5 | 9 | | 15 | 6.07 | 20 |
| | | 2002 | | | | 2 | 7 | | 9 | 3.67 | 27 |
| | | 2003 | | | 1 | 2 | 3 | | 6 | 2.63 | 14 |
| Fort Lauderdale - Hollywood International Airport, Fort Lauderdale (FLL) | ASO | 2000 | 1 | | | | 3 | | 4 | 1.39 | 2 |
| | | 2001 | | 1 | 1 | | | | 2 | 0.67 | 2 |
| | | 2002 | | | 1 | 1 | | | 2 | 0.73 | 0 |
| | | 2003 | | | 1 | 1 | 1 | | 3 | 1.06 | 1 |
| Jacksonville International Airport, Jacksonville (JAX) | ASO | 2000 | | 1 | | | | | 1 | 0.67 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Kendall Tamiami - Executive Airport, Miami (TMB) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.54 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.55 | 2 |
| Key West International Airport, Key West (EYW) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Kissimmee Municipal Airport, Orlando (ISM) | ASO | 2000 | | | | | 2 | | 2 | 1.39 | 0 |
| | | 2001 | | 1 | | | | | 1 | 0.61 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.70 | 6 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Lakeland - Linder Regional Airport, Lakeland (LAL) | ASO | 2000 | | | | 1 | 1 | | 2 | 0.99 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | 1 | | | | 2 | | 3 | 2.03 | 2 |
| | | 2003 | | | 1 | 1 | | | 2 | 1.46 | 1 |
| Melbourne International Airport, Melbourne (MLB) | ASO | 2000 | | | 1 | | | | 1 | 0.52 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 2 | | | 2 | 1.03 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| FLORIDA – continued | | | | Severity | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
| Miami International Airport, Miami (MIA) | ASO | 2000 | | | 1 | 2 | | | 3 | 0.58 | 2 |
| | | 2001 | | 1 | | 1 | 1 | | 3 | 0.61 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.23 | 1 |
| | | 2003 | | | 1 | | 1 | | 2 | 0.47 | 1 |
| Naples Municipal Airport, Naples (APF) | ASO | 2000 | | | | | 1 | | 1 | 0.85 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.74 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| North Perry Airport, Hollywood (HWO) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Opa Locka Airport, Miami (OPF) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Orlando - Executive Airport, Orlando (ORL) | ASO | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.96 | 1 |
| | | 2002 | | | | | 2 | | 2 | 0.97 | 3 |
| | | 2003 | | 1 | | | | | 1 | 0.60 | 1 |
| Orlando - Sanford International Airport, Orlando (SFB) | ASO | 2000 | | | | | 2 | | 2 | 0.54 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Orlando International Airport, Orlando (MCO) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | 1 | | | | 1 | 0.33 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Page Field, Fort Myers (FMY) | ASO | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Palm Beach International Airport, West Palm Beach (PBI) | ASO | 2000 | | | 1 | | 1 | | 2 | 0.96 | 3 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.90 | 1 |
| | | 2002 | | | | 1 | 3 | | 4 | 2.14 | 0 |
| | | 2003 | | | | 1 | | | 1 | 0.51 | 2 |
| Panama City - Bay County International Airport, Panama City (PFN) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Pensacola Regional Airport, Pensacola (PNS) | ASO | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.85 | 3 |
| | | 2002 | | | | | 2 | | 2 | 1.54 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Sarasota - Bradenton International Airport, Sarasota (SRQ) | ASO | 2000 | 1 | | | 1 | 2 | | 4 | 2.29 | 2 |
| | | 2001 | | 1 | | 1 | 1 | | 3 | 1.79 | 3 |
| | | 2002 | | | 1 | | | | 1 | 0.62 | 0 |
| | | 2003 | | | 1 | | | | 1 | 0.73 | 0 |
| Southwest Florida International Airport, Fort Myers (RSW) | ASO | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Space Coast Regional Airport, Titusville (TIX) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.54 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| St. Augustine Airport, St. Augustine (SGJ) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| St. Lucie County International Airport, Fort Pierce (FPR) | ASO | 2000 | | | | 1 | | | 1 | 0.59 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | 1 | | | 1 | 0.54 | 2 |
| St. Petersburg - Clearwater International Airport, St. Petersburg (PIE) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.47 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Tallahassee Regional Airport, Tallahassee (TLH) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Tampa International Airport, Tampa (TPA) | ASO | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | 1 | | | 1 | 0.37 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.43 | 2 |
| Vero Beach Municipal Airport, Vero Beach (VRB) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.45 | 0 |
| | | 2002 | | | 2 | | 1 | | 3 | 1.27 | 2 |
| | | 2003 | | | | | 1 | 2 | 3 | 1.63 | 1 |

**FLORIDA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Severity** | | | | | | | | |
| Witham Field, Stuart (SUA) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.83 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

**GEORGIA**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Severity** | | | | | | | | |
| Athens / Ben Epps Airport, Athens (AHN) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.44 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Augusta Regional Airport at Bush Field, Augusta (AGS) | ASO | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Cobb County Airport - McCollum Field, Marietta (RYY) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Columbus Metropolitan Airport, Columbus (CSG) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 1.96 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Dekalb - Peachtree Airport, Atlanta (PDK) | ASO | 2000 | | | | | 1 | | 1 | 0.42 | 3 |
| | | 2001 | | | 1 | 1 | 1 | | 3 | 1.40 | 15 |
| | | 2002 | | | | 2 | 1 | | 3 | 1.36 | 6 |
| | | 2003 | | | 1 | 1 | | | 2 | 0.91 | 3 |
| Fulton County Airport - Brown Field, Atlanta (FTY) | ASO | 2000 | | | | | 1 | | 1 | 0.85 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Gwinnett County Airport - Briscoe Field, Lawrenceville (LZU) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Hartsfield-Jackson Atlanta International Airport, Atlanta (ATL) | ASO | 2000 | | 1 | 1 | | | | 2 | 0.22 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.11 | 0 |
| | | 2002 | | | 1 | | 3 | | 4 | 0.45 | 2 |
| | | 2003 | | 1 | | 3 | 2 | | 6 | 0.67 | 1 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Middle Georgia Regional Airport, Macon (MCN) | ASO | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Robins AFB, Warner Robins (WRB) | ASO | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Savannah International Airport, Savannah (SAV) | ASO | 2000 | | | 1 | | | | 1 | 0.89 | 1 |
| | | 2001 | | | | 1 | | | 1 | 0.91 | 2 |
| | | 2002 | | 1 | 1 | | | | 2 | 1.74 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Southwest Georgia Regional Airport, Albany (ABY) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Valdosta Regional Airport, Valdosta (VLD) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 2 | 1 | | 3 | 5.14 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

**HAWAII**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Honolulu International Airport, Honolulu (HNL) | AWP | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 4 |
| | | 2003 | | | | 1 | 1 | | 2 | 0.64 | 3 |
| Kahului International Airport, Kahului (OGG) | AWP | 2000 | | | | | 1 | | 1 | 0.57 | 10 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | 1 | 1 | | 2 | 1.30 | 3 |
| Kalaeloa Airport - John Rodgers Field, Kapolei (JRF) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Kona International at Keahole, Keahole (KOA) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## HAWAII – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Severity | | | | | |
| Lihue Airport, Lihue (LIH) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.98 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## IDAHO

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Severity | | | | | |
| Boise Air Terminal - Gowen Field, Boise (BOI) | ANM | 2000 | | | | 1 | 1 | | 2 | 1.14 | 2 |
| | | 2001 | | | | | 3 | | 3 | 1.82 | 8 |
| | | 2002 | | | | | 1 | | 1 | 0.61 | 7 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| Fanning Field, Idaho Falls (IDA) | ANM | 2000 | | | | | 1 | | 1 | 2.28 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | 1 | | | 1 | 2.00 | 2 |
| Joslin Field Magic Valley Regional Airport, Twin Falls (TWF) | ANM | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## ILLINOIS

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Severity | | | | | |
| Aurora Municipal Airport, Chicago/Aurora (ARR) | AGL | 2000 | | 1 | | 1 | | | 2 | 1.49 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Dupage Airport, Chicago/West Chicago (DPA) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | 1 | | | | | 1 | 0.52 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.57 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Greater Peoria Regional Airport, Peoria (PIA) | AGL | 2000 | | | | | 1 | | 1 | 1.12 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Greater Rockford Airport, Rockford (RFD) | AGL | 2000 | | | | 1 | 3 | | 4 | 4.21 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 1.19 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ILLINOIS – continued | | | **Severity** | | | | | | | | |
| Midway Airport, Chicago (MDW) | AGL | 2000 | | 1 | 2 | | 2 | | 5 | 1.66 | 5 |
| | | 2001 | | | | | 2 | | 2 | 0.71 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | 1 | | 1 | 0.31 | 0 |
| O'Hare International Airport, Chicago (ORD) | AGL | 2000 | | | | 1 | 2 | | 3 | 0.33 | 4 |
| | | 2001 | | 1 | | 5 | 3 | | 9 | 0.97 | 7 |
| | | 2002 | | 1 | 1 | 3 | | | 5 | 0.55 | 1 |
| | | 2003 | | | | 6 | 1 | | 7 | 0.76 | 6 |
| Palwaukee Municipal Airport, Chicago (PWK) | AGL | 2000 | | | | 1 | 1 | | 2 | 1.06 | 0 |
| | | 2001 | | 1 | | | 3 | | 4 | 2.31 | 2 |
| | | 2002 | | | 1 | | | | 1 | 0.62 | 0 |
| | | 2003 | | | | 1 | | | 1 | 0.59 | 0 |
| Quad City International Airport, Moline (MLI) | AGL | 2000 | | | | | 1 | | 1 | 1.45 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 1.47 | 3 |
| | | 2003 | | | | | 2 | | 2 | 2.99 | 3 |
| Springfield - Capital Airport, Springfield (SPI) | AGL | 2000 | | | | 1 | 1 | | 2 | 2.56 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.39 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| St. Louis Downtown - Parks Airport, Cahokia/St. Louis (CPS) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | 1 | | | 1 | 0.60 | 2 |
| St. Louis Regional Airport, Alton/St. Louis (ALN) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 1.21 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| University of Illinois - Willard Airport, Champaign/Urbana (CMI) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.79 | 0 |
| | | 2003 | | | | 1 | | | 1 | 0.75 | 0 |
| Waukegan Regional Airport, Waukegan (UGN) | AGL | 2000 | | | | | 1 | | 1 | 1.04 | 1 |
| | | 2001 | | | | 3 | | | 3 | 3.15 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

**INDIANA**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Evansville Regional Airport, Evansville (EVV) | AGL | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | 1 | | | | | 1 | 1.20 | 1 |
| | | 2002 | | | | 1 | | | 1 | 1.13 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Fort Wayne International Airport, Fort Wayne (FWA) | AGL | 2000 | | | | | 1 | | 1 | 0.78 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | 1 | 1 | | 2 | 2.45 | 3 |
| Gary/Chicago Airport, Gary (GYY) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | 1 | | | 1 | 2.10 | 0 |
| Indianapolis International Airport, Indianapolis (IND) | AGL | 2000 | | | | | 1 | | 1 | 0.38 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.39 | 4 |
| | | 2002 | | | | | 1 | | 1 | 0.48 | 1 |
| | | 2003 | | | | 1 | 1 | | 2 | 0.98 | 2 |
| Purdue University Airport, Lafayette (LAF) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| South Bend Regional Airport, South Bend (SBN) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 2 | | 2 | 2.69 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Terre Haute International Airport - Hulman Field, Terre Haute (HUF) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | 1 | | 1 | 1.14 | 1 |

**IOWA**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cedar Rapids - The Eastern Iowa Airport, Cedar Rapids (CID) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.33 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Des Moines International Airport, Des Moines (DSM) | ACE | 2000 | | | | | 1 | | 1 | 0.77 | 3 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.65 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.84 | 2 |
| | | 2003 | | | | | 1 | | 1 | 0.85 | 1 |

| IOWA – continued | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Dubuque Regional Airport, Dubuque (DBQ) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 2 | | 2 | 3.78 | 4 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Sioux Gateway Airport, Sioux City (SUX) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 2.46 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Waterloo Municipal Airport, Waterloo (ALO) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 2.32 | 0 |
| | | 2003 | | | | | 1 | | 1 | 2.70 | 2 |

| KANSAS | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Forbes Field Airport, Topeka (FOE) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 5 |
| Garden City Regional Airport, Garden City (GCK) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 6 |
| Hutchinson Municipal Airport, Hutchinson (HUT) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Johnson County Executive Airport, Olathe (OJC) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |
| Manhattan Regional Airport, Manhattan (MHK) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.12 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| New Century AirCenter Airport, Olathe (IXD) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 2 | | 2 | 2.75 | 0 |
| | | 2003 | | | | 1 | | | 1 | 1.62 | 0 |

## KANSAS – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Phillip Billard Municipal Airport, Topeka (TOP) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Salina Municipal Airport, Salina (SLN) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | 1 | | | 1 | 1.12 | 0 |
| Wichita Mid-Continent Airport, Wichita (ICT) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.94 | 1 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.93 | 7 |
| | | 2003 | | | | | 1 | | 1 | 0.55 | 1 |

## KENTUCKY

| Airport, City (Airport Code) | Region | Fiscal Year | Severity Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Barkley Regional Airport, Paducah (PAH) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Blue Grass Airport, Lexington (LEX) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Bowman Field Airport, Louisville (LOU) | ASO | 2000 | | | | 1 | 1 | | 2 | 1.38 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.87 | 1 |
| | | 2002 | | | | 1 | | | 1 | 0.83 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Cincinnati/Northern Kentucky International Airport, Covington/ Cincinnati (CVG) | ASO | 2000 | | | 1 | 3 | | | 4 | 0.82 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.26 | 0 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.42 | 1 |
| | | 2003 | | | | 3 | 1 | | 4 | 0.80 | 1 |
| Louisville International Airport - Standiford Field, Louisville (SDF) | ASO | 2000 | | | 1 | | | | 1 | 0.89 | 0 |
| | | 2001 | | | | 2 | | | 2 | 1.99 | 6 |
| | | 2002 | | | | | 1 | | 1 | 1.05 | 2 |
| | | 2003 | | | 1 | | 3 | | 4 | 2.28 | 1 |
| Owensboro - Daviess County Regional Airport, Owensboro (OWB) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

| LOUISIANA | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
| Alexandria International Airport, Alexandria (AEX) | ASW | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Acadiana Regional Airport, New Iberia (ARA) | ASW | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| Baton Rouge Metropolitan Airport, Baton Rouge (BTR) | ASW | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.88 | 1 |
| | | 2002 | | | | 1 | 2 | | 3 | 2.77 | 4 |
| | | 2003 | | | | | 1 | | 1 | 0.97 | 1 |
| Lafayette Regional Airport, Lafayette (LFT) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | 1 | | | 1 | 1.30 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Lake Charles Regional Airport, Lake Charles (LCH) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Lakefront Airport, New Orleans (NEW) | ASW | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | 1 | | | 1 | 0.77 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.90 | 2 |
| | | 2003 | | | | | 1 | | 1 | 1.02 | 0 |
| Louis Armstrong - New Orleans International Airport, New Orleans (MSY) | ASW | 2000 | | | | 1 | 1 | | 2 | 1.20 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.67 | 1 |
| | | 2003 | | | | | 1 | | 1 | 0.70 | 0 |
| Monroe Regional Airport, Monroe (MLU) | ASW | 2000 | | | | 1 | 2 | | 3 | 4.65 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Shreveport Downtown Airport, Shreveport (DTN) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.63 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Shreveport Regional Airport, Shreveport (SHV) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.44 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## MAINE

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Bangor International Airport, Bangor (BGR) | ANE | 2000 | | | | | | 1 | 1 | 1.06 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Portland International Jetport, Portland (PWM) | ANE | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## MARYLAND

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Andrews Air Force Base, Clinton (ADW) | AEA | 2000 | | | | 1 | | | 1 | 0.97 | 10 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |
| Baltimore - Washington International Airport, Baltimore (BWI) | AEA | 2000 | | | | 2 | | | 2 | 0.65 | 4 |
| | | 2001 | | | | | 1 | | 1 | 0.30 | 0 |
| | | 2002 | | | 1 | | 3 | | 4 | 1.29 | 2 |
| | | 2003 | | | | 1 | 1 | | 2 | 0.68 | 3 |
| Hagerstown Regional Airport - Richard A. Henson Field, Hagerstown (HGR) | AEA | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 2 | | | 2 | 3.84 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Salisbury - Ocean City - Wicomico Regional Airport, Salisbury (SBY) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 1.98 | 0 |

## MASSACHUSETTS

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Barnes Municipal Airport, Westfield (BAF) | ANE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.59 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Barnstable Municipal Airport - Boardman Polando Field, Hyannis (HYA) | ANE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Beverly Municipal Airport, Beverly (BVY) | ANE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 1.21 | 0 |
| Boston - Logan International Airport, Boston (BOS) | ANE | 2000 | | | 3 | 5 | 1 | | 9 | 1.76 | 2 |
| | | 2001 | | | 1 | 3 | 2 | | 6 | 1.20 | 3 |
| | | 2002 | | | | 1 | | | 1 | 0.25 | 1 |
| | | 2003 | | | | 2 | | | 2 | 0.52 | 1 |
| Laurence G. Hanscom Field, Bedford (BED) | ANE | 2000 | | | | 2 | | | 2 | 0.95 | 2 |
| | | 2001 | | | 1 | | | | 1 | 0.48 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Lawrence Municipal Airport, Lawrence (LWM) | ANE | 2000 | | | | 2 | 1 | | 3 | 3.22 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Martha's Vineyard Airport, Martha's Vineyard (MVY) | ANE | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Nantucket Memorial Airport, Nantucket (ACK) | ANE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| New Bedford Regional Airport, New Bedford (EWB) | ANE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Norwood Memorial Airport, Norwood (OWD) | ANE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Worcester Regional Airport, Worcester (ORH) | ANE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

**MICHIGAN**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Ann Arbor Municipal Airport, Ann Arbor (ARB) | AGL | 2000 | | | | 1 | | | 1 | 0.87 | 9 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | 1 | | | 1 | 1.08 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Bishop International Airport, Flint (FNT) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.74 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.75 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Detroit City Airport, Detroit (DET) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Detroit Metropolitan Wayne County International Airport, Detroit (DTW) | AGL | 2000 | | 1 | | | | | 1 | 0.18 | 1 |
| | | 2001 | | | 2 | 1 | 1 | | 4 | 0.74 | 5 |
| | | 2002 | | | 1 | 2 | 1 | | 4 | 0.82 | 7 |
| | | 2003 | | | | 1 | 2 | | 3 | 0.61 | 0 |
| Gerald R. Ford International Airport, Grand Rapids (GRR) | AGL | 2000 | | | | 1 | | | 1 | 0.71 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.79 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Jackson County - Reynolds Field, Jackson (JXN) | AGL | 2000 | | | | | 1 | | 1 | 1.49 | 0 |
| | | 2001 | | | | 1 | 2 | | 3 | 4.99 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 3.02 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Kalamazoo - Battle Creek International Airport, Kalamazoo (AZO) | AGL | 2000 | | | | | 1 | | 1 | 0.96 | 0 |
| | | 2001 | | | | 2 | | | 2 | 2.10 | 4 |
| | | 2002 | | | | | 1 | | 1 | 1.03 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Lansing Capital City Airport, Lansing (LAN) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| MBS International Airport, Saginaw (MBS) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Muskegon County Airport, Muskegon (MKG) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 1.21 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 5 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Oakland County International Airport, Pontiac (PTK) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| W.K. Kellogg Airport, Battle Creek (BTL) | AGL | 2000 | | | | 1 | | | 1 | 0.96 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Willow Run Airport, Detroit (YIP) | AGL | 2000 | | 1 | | | 1 | | 2 | 1.36 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | 1 | 3 | | 4 | 3.39 | 7 |
| | | 2003 | | | | 1 | 2 | | 3 | 2.65 | 13 |

MINNESOTA

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Anoka County - Blaine Airport, Minneapolis (ANE) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.75 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Crystal Airport, Minneapolis (MIC) | AGL | 2000 | | | 1 | | 1 | | 2 | 1.07 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 3 | | 3 | 2.29 | 3 |
| | | 2003 | | | | | 4 | | 4 | 3.76 | 0 |
| Duluth International Airport, Duluth (DLH) | AGL | 2000 | | | 1 | 1 | | | 2 | 3.12 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 2.69 | 6 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |
| Flying Cloud Airport, Minneapolis (FCM) | AGL | 2000 | | | | 1 | 1 | | 2 | 0.99 | 1 |
| | | 2001 | | | | 1 | | | 1 | 0.55 | 9 |
| | | 2002 | | | | 3 | 3 | | 6 | 3.31 | 16 |
| | | 2003 | | | | 1 | 1 | | 2 | 1.26 | 6 |
| Minneapolis - St. Paul International Airport, Minneapolis (MSP) | AGL | 2000 | | | 1 | 2 | | | 3 | 0.57 | 7 |
| | | 2001 | | | | 3 | 1 | | 4 | 0.78 | 5 |
| | | 2002 | | | | 1 | 2 | | 3 | 0.60 | 3 |
| | | 2003 | | | | 1 | 3 | | 4 | 0.79 | 6 |

**MINNESOTA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Severity | | | | | | |
| Rochester International Airport, Rochester (RST) | AGL | 2000 | | | | 1 | 1 | | 2 | 2.47 | 1 |
| | | 2001 | | | | | 1 | | 1 | 1.29 | 4 |
| | | 2002 | | | | | 1 | | 1 | 1.44 | 1 |
| | | 2003 | | | | | 1 | | 1 | 1.42 | 1 |
| St. Paul Downtown - Holman Field Airport, St. Paul (STP) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.58 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

**MISSISSIPPI**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Severity | | | | | | |
| Gulfport - Biloxi International Airport, Gulfport (GPT) | ASO | 2000 | | | | | 1 | | 1 | 0.85 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.96 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.92 | 2 |
| | | 2003 | | | | | 1 | | 1 | 0.94 | 6 |
| Jackson International Airport, Jackson (JAN) | ASO | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Mid Delta Regional Airport, Greenville (GLH) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | | | 1 | 2.84 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Tupelo Regional Airport, Tupelo (TUP) | ASO | 2000 | | 1 | | | | | 1 | 2.17 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **MISSOURI** | | | **Severity** | | | | | | | | |
| Cape Girardeau Regional Airport, Cape Girardeau (CGI) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | 1 | | 1 | 3.94 | 0 |
| Charles B. Wheeler - Downtown Airport, Kansas City (MKC) | ACE | 2000 | | 1 | | 1 | | | 2 | 1.46 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 6 |
| | | 2002 | | | | | 1 | | 1 | 0.82 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Columbia Regional Airport, Columbia (COU) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Joplin Regional Airport, Joplin (JLN) | ACE | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.74 | 1 |
| | | 2002 | | | | | 2 | | 2 | 5.06 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Kansas City International Airport, Kansas City (MCI) | ACE | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.51 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Lambert - St. Louis International Airport, St. Louis (STL) | ACE | 2000 | | | | 3 | 3 | | 6 | 1.23 | 7 |
| | | 2001 | | | | 6 | 2 | | 8 | 1.64 | 2 |
| | | 2002 | | | | | 7 | | 7 | 1.54 | 4 |
| | | 2003 | | | 2 | 2 | 4 | | 8 | 1.90 | 4 |
| Spirit of St. Louis Field, St. Louis (SUS) | ACE | 2000 | | | 1 | 1 | 1 | | 3 | 1.46 | 8 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Springfield - Branson Regional Airport, Springfield (SGF) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.99 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | 1 | | 1 | 1.10 | 0 |

## MONTANA

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | Severity | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Billings - Logan International Airport, Billings (BIL) | ANM | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| Great Falls International Airport, Great Falls (GTF) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Missoula International Airport, Missoula (MSO) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | 1 | | | 1 | 1.56 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## NEBRASKA

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | Severity | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Central Nebraska Regional Airport, Grand Island (GRI) | ACE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | | | 1 | 4.27 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| Eppley Airfield, Omaha (OMA) | ACE | 2000 | | | | 2 | 1 | | 3 | 1.68 | 0 |
| | | 2001 | | | | 2 | | | 2 | 1.36 | 7 |
| | | 2002 | | | | 1 | 1 | | 2 | 1.40 | 4 |
| | | 2003 | | | 1 | | 1 | | 2 | 1.40 | 3 |
| Lincoln Municipal Airport, Lincoln (LNK) | ACE | 2000 | | 1 | | 1 | | | 2 | 1.61 | 3 |
| | | 2001 | | | | | 2 | | 2 | 1.89 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |

## NEVADA

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | Severity | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Elko Regional Airport, Elko (EKO) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| McCarran International Airport, Las Vegas (LAS) | AWP | 2000 | | | | 2 | | | 2 | 0.37 | 1 |
| | | 2001 | | | 1 | 1 | 2 | | 4 | 0.78 | 1 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.41 | 0 |
| | | 2003 | | | | | 3 | | 3 | 0.60 | 4 |

**NEVADA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| North Las Vegas Airport, Las Vegas (VGT) | AWP | 2000 | | | 1 | 2 | 11 | | 14 | 6.08 | 23 |
| | | 2001 | | 1 | 1 | 1 | 6 | | 9 | 4.47 | 6 |
| | | 2002 | | | | 1 | 6 | | 7 | 3.48 | 1 |
| | | 2003 | 1 | | | 2 | | | 3 | 1.34 | 3 |
| Reno/Tahoe International Airport, Reno (RNO) | AWP | 2000 | | | 1 | | | | 1 | 0.66 | 25 |
| | | 2001 | | | | | 1 | | 1 | 0.70 | 7 |
| | | 2002 | | | | 2 | 1 | | 3 | 2.07 | 3 |
| | | 2003 | | | | 2 | | | 2 | 1.43 | 10 |

**NEW HAMPSHIRE**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Manchester Airport, Manchester (MHT) | ANE | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | 1 | | | | 1 | 1.04 | 1 |

**NEW JERSEY**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Atlantic City International Airport, Atlantic City (ACY) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.80 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Essex County Airport, Caldwell (CDW) | AEA | 2000 | | | | | 1 | | 1 | 0.49 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | 1 | | | 1 | 0.65 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Morristown Municipal Airport, Morristown (MMU) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | 1 | 1 | | | 2 | 0.97 | 0 |
| Newark Liberty International Airport, Newark (EWR) | AEA | 2000 | | | 1 | 4 | 1 | | 6 | 1.31 | 6 |
| | | 2001 | | | | | 3 | | 3 | 0.65 | 5 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.49 | 4 |
| | | 2003 | 1 | | | | 2 | | 3 | 0.74 | 2 |

## NEW JERSEY – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Teterboro Airport, Teterboro (TEB) | AEA | 2000 | | | | 2 | 2 | | 4 | 1.48 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.37 | 2 |
| | | 2002 | | 1 | | | 3 | | 4 | 1.73 | 3 |
| | | 2003 | | | | | 1 | | 1 | 0.46 | 3 |
| Trenton Mercer Airport, Trenton (TTN) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

## NEW MEXICO

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Albuquerque International Sunport, Albuquerque (ABQ) | ASW | 2000 | | | 1 | 1 | 1 | | 3 | 1.29 | 0 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.84 | 2 |
| | | 2002 | | | 1 | 1 | | | 2 | 0.78 | 0 |
| | | 2003 | | | | 1 | | | 1 | 0.44 | 1 |
| Roswell Industrial Air Center, Roswell (ROW) | ASW | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Santa Fe Municipal Airport, Santa Fe (SAF) | ASW | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | | | 1 | 1.28 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.15 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## NEW YORK

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Albany International Airport, Albany (ALB) | AEA | 2000 | | | | 1 | | | 1 | 0.69 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.67 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Binghamton Regional Airport, Binghamton (BGM) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | 1 | | | | 1 | 2.50 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 2.65 | 0 |
| Buffalo Niagara International Airport, Buffalo (BUF) | AEA | 2000 | | | | 1 | | | 1 | 0.62 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.73 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

**NEW YORK** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dutchess County Airport, Poughkeepsie (POU) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | | | 1 | 0.74 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Elmira Corning Regional Airport, Elmira (ELM) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 5 |
| Farmingdale Republic Airport, Farmingdale (FRG) | AEA | 2000 | | 1 | | 4 | | | 5 | 2.33 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.97 | 2 |
| | | 2003 | | | | 1 | | | 1 | 0.53 | 0 |
| Greater Rochester International Airport, Rochester (ROC) | AEA | 2000 | | | | | 3 | | 3 | 1.62 | 10 |
| | | 2001 | | | 1 | 1 | 1 | | 3 | 1.73 | 8 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | 1 | | | 1 | 0.72 | 6 |
| John F. Kennedy International Airport, New York City (JFK) | AEA | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | 3 | | 3 | 0.88 | 2 |
| | | 2002 | | | | | 2 | | 2 | 0.69 | 3 |
| | | 2003 | | | | 1 | | | 1 | 0.34 | 3 |
| LaGuardia Airport, New York City (LGA) | AEA | 2000 | | 1 | | 1 | 1 | | 3 | 0.79 | 1 |
| | | 2001 | | | 1 | 2 | 1 | | 4 | 0.99 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.56 | 0 |
| | | 2003 | | | | 1 | 1 | | 2 | 0.53 | 2 |
| Long Island MacArthur International Airport, Islip (ISP) | AEA | 2000 | | | | | 2 | | 2 | 0.87 | 0 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.86 | 1 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.90 | 1 |
| | | 2003 | | 1 | | | | | 1 | 0.54 | 1 |
| Niagara Falls International Airport, Niagara Falls (IAG) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Oneida County Airport, Utica (UCA) | AEA | 2000 | | | | | 1 | | 1 | 1.86 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Stewart International Airport, Newburgh (SWF) | AEA | 2000 | | | | 1 | | | 1 | 0.67 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | 1 | | | | | 1 | 0.91 | 0 |

| NEW YORK – continued | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
| Syracuse Hancock International Airport, Syracuse (SYR) | AEA | 2000 | | | | 1 | | | 1 | 0.71 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.68 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Tompkins County Airport, Ithaca (ITH) | AEA | 2000 | | | | | 1 | | 1 | 1.85 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Westchester County Airport, White Plains (HPN) | AEA | 2000 | | 1 | | 1 | 1 | | 3 | 1.38 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.47 | 1 |
| | | 2002 | | | | 3 | | | 3 | 1.51 | 1 |
| | | 2003 | | | | | 1 | | 1 | 0.53 | 2 |

| NORTH CAROLINA | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
| Asheville Regional Airport, Asheville (AVL) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Charlotte - Douglas International Airport, Charlotte (CLT) | ASO | 2000 | | | | 2 | | | 2 | 0.44 | 3 |
| | | 2001 | | | | 2 | 2 | | 4 | 0.85 | 4 |
| | | 2002 | | | | | 1 | | 1 | 0.21 | 0 |
| | | 2003 | | | | 1 | 2 | | 3 | 0.68 | 2 |
| Craven County Regional Airport, New Bern (EWN) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Fayetteville Regional Airport, Fayetteville (FAY) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Hickory Regional Airport, Hickory (HKY) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 2.15 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Kinston Regional Jetport at Stallings, Kinston (ISO) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 3.28 | 0 |

**NORTH CAROLINA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Piedmont Triad International Airport, Greensboro (GSO) | ASO | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | | | 1 | | | 1 | 0.72 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.81 | 1 |
| | | 2003 | | | | | 1 | | 1 | 0.85 | 0 |
| Raleigh - Durham International Airport, Raleigh/Durham (RDU) | ASO | 2000 | | 1 | | 1 | 1 | | 3 | 1.01 | 8 |
| | | 2001 | | | | 2 | 1 | | 3 | 1.02 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |
| Smith Reynolds Airport, Winston-Salem (INT) | ASO | 2000 | | | | | 1 | | 1 | 1.33 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Wilmington International Airport, Wilmington (ILM) | ASO | 2000 | | | 1 | | 1 | | 2 | 2.34 | 4 |
| | | 2001 | | | | | 1 | | 1 | 1.24 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.19 | 2 |
| | | 2003 | | | | 1 | 1 | | 2 | 2.54 | 0 |

**NORTH DAKOTA**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Grand Forks International Airport, Grand Forks (GFK) | AGL | 2000 | | | | | 1 | | 1 | 0.43 | 6 |
| | | 2001 | | | | 1 | | | 1 | 0.39 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.71 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Hector International Airport, Fargo (FAR) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | 2 | | | 2 | 2.34 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

**OHIO**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Akron - Canton Regional Airport, North Canton (CAK) | AGL | 2000 | | | | | 1 | | 1 | 0.80 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | 1 | 1 | 1 | | 3 | 2.50 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| Akron Fulton International Airport, Akron (AKR) | AGL | 2000 | | | | | 1 | | 1 | 4.05 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | Severity | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bolton Field, Columbus (TZR) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Cincinnati Municipal Airport - Lunken Field, Cincinnati (LUK) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.79 | 9 |
| | | 2002 | | | | 1 | | | 1 | 0.76 | 6 |
| | | 2003 | | | | 1 | 1 | | 2 | 1.69 | 3 |
| Cleveland Hopkins International Airport, Cleveland (CLE) | AGL | 2000 | | | | 1 | | | 1 | 0.30 | 4 |
| | | 2001 | | | | | 1 | | 1 | 0.33 | 7 |
| | | 2002 | | | | | 1 | | 1 | 0.38 | 7 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |
| Cuyahoga County Airport, Cleveland (CGF) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 1.49 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Dayton International Airport, Dayton (DAY) | AGL | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | 1 | | | | | 1 | 0.74 | 4 |
| | | 2002 | | | | 1 | | | 1 | 0.80 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Mansfield Lahm Regional Airport, Mansfield (MFD) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Ohio State University Airport, Columbus (OSU) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.05 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Port Columbus International Airport, Columbus (CMH) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.41 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | 1 | | | 1 | 0.42 | 1 |
| Toledo Express Airport, Toledo (TOL) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Youngstown - Warren Regional Airport, Vienna (YNG) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.06 | 1 |
| | | 2003 | | | | | 1 | | 1 | 1.32 | 1 |

**OKLAHOMA**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Enid Woodring Regional, Enid (WDG) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | 1 | 1 | 1.74 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Lawton Fort Sill Regional Airport, Lawton (LAW) | ASW | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Richard Lloyd Jones, Jr. Airport, Tulsa (RVS) | ASW | 2000 | | | | | 2 | | 2 | 0.72 | 5 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.77 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.31 | 10 |
| | | 2003 | | | 1 | | | | 1 | 0.33 | 0 |
| Tulsa International Airport, Tulsa (TUL) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.51 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | 1 | | | 1 | 0.57 | 1 |
| University of Oklahoma - Westheimer Airport, Norman (OUN) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.85 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Wiley Post Airport, Oklahoma City (PWA) | ASW | 2000 | | | | | 1 | | 1 | 1.06 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Will Rogers World Airport, Oklahoma City (OKC) | ASW | 2000 | | | | 1 | | | 1 | 0.61 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.58 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.58 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

**OREGON**

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Eastern Oregon Regional Airport at Pendleton, Pendleton (PDT) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 2.89 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Hillsboro Airport, Hillsboro (HIO) | ANM | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.46 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| OREGON – continued | | | Severity | | | | | | | | |
| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Klamath Falls Airport, Klamath Falls (LMT) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.16 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Mahlon Sweet Field, Eugene (EUG) | ANM | 2000 | | | 1 | | | | 1 | 0.91 | 0 |
| | | 2001 | | | | 2 | 2 | | 4 | 3.69 | 4 |
| | | 2002 | | | | 1 | 1 | | 2 | 2.16 | 5 |
| | | 2003 | | | | 1 | | | 1 | 1.09 | 8 |
| McNary Field, Salem (SLE) | ANM | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 4.13 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Portland International Airport, Portland (PDX) | ANM | 2000 | | | 1 | | | | 1 | 0.31 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 10 |
| | | 2003 | | | | | 1 | | 1 | 0.37 | 3 |
| Portland Troutdale Airport, Portland (TTD) | ANM | 2000 | | | | 3 | 2 | | 5 | 6.50 | 6 |
| | | 2001 | | | | | 1 | | 1 | 1.43 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |
| | | 2003 | | | | 1 | | | 1 | 1.35 | 6 |
| Roberts Field, Redmond (RDM) | ANM | 2000 | | | | | 2 | | 2 | 3.62 | 1 |
| | | 2001 | | | | 2 | 1 | | 3 | 5.57 | 0 |
| | | 2002 | | | | 1 | 1 | | 2 | 3.73 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| PENNSYLVANIA | | | Severity | | | | | | | | |
| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Allegheny County Airport, Pittsburgh (AGC) | AEA | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | | 1 | | 1 | 0.83 | 1 |
| | | 2003 | | | 1 | 1 | 1 | | 3 | 2.92 | 0 |
| Capital City Airport, Harrisburg (CXY) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 1.50 | 0 |
| | | 2002 | | | | 1 | | | 1 | 1.58 | 0 |
| | | 2003 | | 1 | | | | | 1 | 1.95 | 0 |
| Erie International Airport - Tom Ridge Field, Erie (ERI) | AEA | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| John Murtha - Johnstown - Cambria County Airport, Johnstown (JST) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Lancaster Airport, Lancaster (LNS) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Lehigh Valley International Airport, Allentown (ABE) | AEA | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Northeast Philadelphia Airport, Philadelphia (PNE) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Philadelphia International Airport, Philadelphia (PHL) | AEA | 2000 | | | 1 | 2 | | | 3 | 0.62 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.43 | 3 |
| | | 2003 | | 1 | | 4 | 6 | | 11 | 2.45 | 2 |
| Pittsburgh International Airport, Pittsburgh (PIT) | AEA | 2000 | | | | 1 | | | 1 | 0.22 | 2 |
| | | 2001 | | | | | | 1 | 1 | 0.22 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.23 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.27 | 5 |
| Reading Regional Airport - Carl A. Spaatz Field, Reading (RDG) | AEA | 2000 | | | | | 1 | | 1 | 0.68 | 3 |
| | | 2001 | | | | | 1 | | 1 | 0.68 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.66 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Wilkes-Barre/Scranton International Airport, Wilkes-Barre/Scranton (AVP) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Williamsport Regional Airport, Williamsport (IPT) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 3.79 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

## PUERTO RICO

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Fernando Luis Ribas Dominicci - Isla Grande Airport, San Juan (SIG) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Luis Muñoz Marin International Airport, San Juan (SJU) | ASO | 2000 | | | | | 2 | | 2 | 0.81 | 19 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.95 | 12 |
| | | 2002 | | | | 1 | 2 | | 3 | 1.49 | 5 |
| | | 2003 | | | | | | | 0 | 0.00 | 6 |

## RATAK ISLANDS

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Bucholz AAF, Kwajalein (KWA) | AWP | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## RHODE ISLAND

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| T.F. Green Airport, Providence (PVD) | ANE | 2000 | | 1 | | 2 | 3 | | 6 | 3.82 | 7 |
| | | 2001 | | | | 1 | | | 1 | 0.67 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.69 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.75 | 1 |

## SOUTH CAROLINA

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Charleston Air Force Base / International Airport, Charleston (CHS) | ASO | 2000 | | | | | 2 | | 2 | 1.43 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | 1 | | 1 | 0.84 | 0 |
| Columbia Metropolitan Airport, Columbia (CAE) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| Florence Regional Airport, Florence (FLO) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | 1 | | | | | 1 | 2.58 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| SOUTH CAROLINA – continued | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Grand Strand Airport, North Myrtle Beach (CRE) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Greenville - Spartanburg Airport, Greer (GSP) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Greenville Downtown Airport, Greenville (GMU) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 1.22 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Hilton Head Airport, Hilton Head Island (HXD) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Myrtle Beach International Airport, Myrtle Beach (MYR) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

| SOUTH DAKOTA | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Joe Foss Field, Sioux Falls (FSD) | AGL | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 1.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.94 | 2 |
| | | 2003 | | | | 2 | | | 2 | 2.12 | 1 |
| Rapid City Regional Airport, Rapid City (RAP) | AGL | 2000 | | | | | 1 | | 1 | 1.69 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | 1 | | | 1 | 1.79 | 3 |

| TENNESSEE | | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Lovell Field, Chattanooga (CHA) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| McGee Tyson Airport, Knoxville (TYS) | ASO | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | 5 | | 6 | 4.06 | 5 |
| | | 2002 | | | | | 1 | | 1 | 0.66 | 7 |
| | | 2003 | | | | 2 | 3 | | 5 | 3.58 | 8 |
| McKellar Sipes Regional Airport, Jackson (MKL) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Memphis International Airport, Memphis (MEM) | ASO | 2000 | | | | 2 | 1 | | 3 | 0.79 | 1 |
| | | 2001 | | | | 1 | 2 | | 3 | 0.75 | 3 |
| | | 2002 | | | | 1 | | | 1 | 0.25 | 3 |
| | | 2003 | | | | | 2 | | 2 | 0.50 | 3 |
| Nashville International Airport, Nashville (BNA) | ASO | 2000 | | | | | 1 | | 1 | 0.40 | 9 |
| | | 2001 | | | | | 1 | | 1 | 0.41 | 2 |
| | | 2002 | | | | 1 | | | 1 | 0.43 | 1 |
| | | 2003 | | | | | 1 | | 1 | 0.44 | 4 |
| Smyrna Airport, Smyrna (MQY) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Tri-Cities Regional Airport, Blountville (TRI) | ASO | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | 1 | | 1 | 1.13 | 0 |

| TEXAS | | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Abilene Regional Airport, Abilene (ABI) | ASW | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Addison Airport, Dallas (ADS) | ASW | 2000 | | | | 1 | | | 1 | 0.59 | 5 |
| | | 2001 | | | | | 1 | | 1 | 0.62 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.63 | 0 |
| | | 2003 | | | | 1 | 3 | | 4 | 2.66 | 4 |

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
| | | | Collision | A | B | C | D | ID | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Amarillo International Airport, Amarillo (AMA) | ASW | 2000 | | | | 1 | | | 1 | 0.79 | 3 |
| | | 2001 | | | | | 1 | | 1 | 0.82 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | 1 | | | 1 | 0.83 | 1 |
| Austin - Bergstrom International Airport, Austin (AUS) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Brownsville South Padre Island International Airport, Brownsville (BRO) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 3.25 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Dallas / Fort Worth International Airport, Dallas (DFW) | ASW | 2000 | | | 2 | 1 | 2 | | 5 | 0.57 | 4 |
| | | 2001 | | 1 | 2 | 1 | 2 | | 6 | 0.72 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | 2 | 4 | | 6 | 0.78 | 0 |
| Dallas Love Field, Dallas (DAL) | ASW | 2000 | | | | | 1 | | 1 | 0.39 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | 1 | | | 1 | 0.42 | 5 |
| David Wayne Hooks Memorial Airport, Houston (DWH) | ASW | 2000 | | | | 1 | 3 | | 4 | 1.66 | 12 |
| | | 2001 | | | | | 1 | | 1 | 0.53 | 6 |
| | | 2002 | | | 1 | 1 | | | 2 | 1.01 | 3 |
| | | 2003 | | | | 2 | 1 | | 3 | 1.47 | 6 |
| East Texas Regional Airport, Longview (GGG) | ASW | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 1.08 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| El Paso International Airport, El Paso (ELP) | ASW | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.77 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Fort Worth Alliance Airport, Fort Worth (AFW) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Fort Worth Meacham International Airport, Fort Worth (FTW) | ASW | 2000 | | | | | 1 | | 1 | 0.31 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.40 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.43 | 1 |
| | | 2003 | | | | 1 | | | 1 | 0.65 | 5 |

| Airport, City (Airport Code) | Region | Fiscal Year | Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| George Bush Intercontinental Airport, Houston (IAH) | ASW | 2000 | | | | 1 | | | 1 | 0.21 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.22 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Lubbock International Airport, Lubbock (LBB) | ASW | 2000 | | | | | 2 | | 2 | 1.46 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |
| McKinney Municipal Airport, McKinney (TKI) | ASW | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Palestine Municipal Airport, Palestine (PSN) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| San Angelo Regional Airport - Mathis Field, San Angelo (SJT) | ASW | 2000 | | | | | 1 | | 1 | 1.08 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| San Antonio International Airport, San Antonio (SAT) | ASW | 2000 | | | | 2 | | | 2 | 0.78 | 3 |
| | | 2001 | | | 1 | | | | 1 | 0.43 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.85 | 7 |
| | | 2003 | | | | 2 | 2 | | 4 | 1.61 | 2 |
| Stinson Municipal Airport, San Antonio (SSF) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | 1 | | | | 1 | 0.54 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Sugar Land Regional Airport, Houston (SGR) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 2 | | | 2 | 2.10 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Texas A&M University Easterwood Airport, College Station (CLL) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | 1 | | | | | 1 | 1.51 | 0 |
| TSTC Waco Airport, Waco (CNW) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

**TEXAS** – continued

Severity

**TEXAS** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Tyler Pounds Regional Airport, Tyler (TYR) | ASW | 2000 | | | | 1 | | | 1 | 0.89 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Valley International Airport, Harlingen (HRL) | ASW | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Waco Regional Airport, Waco (ACT) | ASW | 2000 | | | 1 | | | | 1 | 1.63 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.75 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |
| William P. Hobby Airport, Houston (HOU) | ASW | 2000 | | | | 1 | 1 | | 2 | 0.78 | 1 |
| | | 2001 | | | 2 | | | | 2 | 0.81 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.40 | 2 |
| | | 2003 | | | 1 | 1 | 2 | | 4 | 1.64 | 1 |

**UTAH**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Ogden Hinckley Airport, Ogden (OGD) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Provo Municipal Airport, Provo (PVU) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Salt Lake City International Airport, Salt Lake City (SLC) | ANM | 2000 | | | 1 | 2 | 2 | | 5 | 1.35 | 2 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.55 | 7 |
| | | 2002 | | | | 2 | 2 | | 4 | 1.00 | 5 |
| | | 2003 | | | | 1 | 2 | | 3 | 0.75 | 7 |

**VERMONT**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Burlington International Airport, Burlington (BTV) | ANE | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.84 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.90 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 2 |

## VIRGIN ISLANDS

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Charlotte Amalie - Cyril King International Airport, St. Thomas (STT) | ASO | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## VIRGINIA

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Lynchburg Regional Airport - Preston Glenn Field, Lynchburg (LYH) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Manassas Regional Airport - Harry P. Davis Field, Manassas (HEF) | AEA | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | 1 | | | 1 | 0.76 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Norfolk International Airport, Norfolk (ORF) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.78 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Richmond International Airport, Richmond (RIC) | AEA | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 1 | | 1 | 0.74 | 2 |
| | | 2003 | | | | 1 | | | 1 | 0.81 | 3 |
| Roanoke Regional Airport - Woodrum Field, Roanoke (ROA) | AEA | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | 1 | | 1 | 1.02 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Washington Dulles International Airport, Sterling (IAD) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.23 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | 3 | | | 3 | 0.81 | 0 |
| Williamsburg International Airport, Newport News (PHF) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | 1 | | 1 | | 2 | 0.98 | 1 |

| WASHINGTON | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Boeing Field - King County International Airport, Seattle (BFI) | ANM | 2000 | | | | 2 | 2 | | 4 | 1.11 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | 1 | | | | | 1 | 0.36 | 1 |
| | | 2003 | | | | 2 | 2 | | 4 | 1.31 | 2 |
| Felts Field, Spokane (SFF) | ANM | 2000 | | | | | 1 | | 1 | 1.31 | 1 |
| | | 2001 | | | | 1 | | | 1 | 1.44 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Grant County International Airport, Moses Lake (MWH) | ANM | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Olympia Airport, Olympia (OLM) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Renton Municipal Airport, Renton (RNT) | ANM | 2000 | | | | | 1 | | 1 | 0.76 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.88 | 2 |
| | | 2003 | | | | | 1 | | 1 | 1.04 | 0 |
| Seattle - Tacoma International Airport, Seattle (SEA) | ANM | 2000 | | | | 1 | 1 | | 2 | 0.45 | 3 |
| | | 2001 | | 1 | | 2 | 1 | | 4 | 0.94 | 8 |
| | | 2002 | | | | 1 | 3 | | 4 | 1.11 | 8 |
| | | 2003 | | | | | | | 0 | 0.00 | 5 |
| Snohomish County - Paine Field, Everett (PAE) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.94 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Spokane International Airport, Spokane (GEG) | ANM | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.89 | 1 |
| | | 2002 | | | | 1 | | | 1 | 0.93 | 0 |
| | | 2003 | | | | | 1 | | 1 | 0.93 | 2 |
| Tri-Cities Airport, Pasco (PSC) | ANM | 2000 | | | | 1 | | | 1 | 1.06 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | 1 | | | 1 | 1.08 | 0 |
| Walla Walla Regional Airport, Walla Walla (ALW) | ANM | 2000 | | | | | 1 | | 1 | 2.30 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

## WASHINGTON – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Yakima Air Terminal - McAllister Field, Yakima (YKM) | ANM | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |

## WEST VIRGINIA

| Airport, City (Airport Code) | Region | Fiscal Year | Severity Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Harrison Marion Regional Airport, Clarksburg (CKB) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 2 | | 2 | 3.53 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Morgantown Municipal Airport, Morgantown (MGW) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | 1 | | | | 1 | 2.40 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Tri-State Airport - Milton J. Ferguson Field, Huntington (HTS) | AEA | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 1 |
| Wheeling - Ohio County Airport, Wheeling (HLG) | AEA | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Yeager Field, Charleston (CRW) | AEA | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.15 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 3 |

## WISCONSIN

| Airport, City (Airport Code) | Region | Fiscal Year | Severity Collision | A | B | C | D | ID | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Austin Straubel International Airport, Green Bay (GRB) | AGL | 2000 | | | | 1 | 2 | | 3 | 4.42 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Central Wisconsin Airport, Mosinee (CWA) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

| WISCONSIN – continued | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Dane County Regional Airport - Truax Field, Madison (MSN) | AGL | 2000 | | | | | 1 | | 1 | 0.74 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.80 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | 1 | 2 | | | 3 | 2.33 | 1 |
| General Mitchell International Airport, Milwaukee (MKE) | AGL | 2000 | | 1 | | 1 | 1 | | 3 | 1.33 | 1 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.93 | 7 |
| | | 2002 | | | | 1 | | | 1 | 0.47 | 2 |
| | | 2003 | | | | 1 | 3 | | 4 | 1.89 | 4 |
| Kenosha Regional Airport, Kenosha (ENW) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.17 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Outagamie County Regional Airport, Appleton (ATW) | AGL | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Rock County Airport, Janesville (JVL) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | 1 | | | | 1 | 1.24 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | | | | 1 | | | 1 | 1.32 | 2 |
| Waukesha County Airport, Waukesha (UES) | AGL | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |
| Wittman Regional Airport, Oshkosh (OSH) | AGL | 2000 | | | | | 1 | | 1 | 0.91 | 1 |
| | | 2001 | | | 1 | | 1 | | 2 | 1.94 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| | | 2003 | 1 | | | | | | 1 | 0.91 | 1 |

| WYOMING | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Jackson Hole Airport, Jackson (JAC) | ANM | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | | | | | | | 0 | 0.00 | 10 |
| | | 2003 | | | | | | | 0 | 0.00 | 4 |
| Natrona County International Airport, Casper (CPR) | ANM | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| | | 2003 | | | | | | | 0 | 0.00 | 0 |

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