# FAA Runway Safety Report

Runway Incursion Trends at Towered Airports
in the United States

***FY 1999 – FY 2002***


**FAA Office of Runway Safety**

***July 2003***

## PREFACE

The objectives of this report are to expand the understanding of runway safety trends, clarify runway safety issues, and heighten the awareness of runway safety risk management across the aviation community. The Federal Aviation Administration (FAA) is using the findings from this report in working with the aviation community to reduce the risk of runway collisions, as well as the severity and frequency of runway incursions.

This is the third Runway Safety Report issued by the FAA. Readers familiar with the two previous reports will note that those reports presented an analysis of runway safety on a calendar-year basis. However, as required by the Government Performance and Results Act, federal agencies have established standards for measuring performance on a fiscal-year basis. Beginning with this publication, FAA Runway Safety Reports will present findings and safety trends for the four most recent fiscal years. This FAA Runway Safety Report reflects the trends for fiscal years 1999 through 2002.

The reader is invited to visit the FAA Office of Runway Safety website (www.faa.gov/runwaysafety) for more information about the FAA's runway safety activities and to view current runway safety data.

## EXECUTIVE SUMMARY

Approximately 268 million takeoffs and landings were collectively managed at over 480 FAA/contract towered airports in the United States during fiscal years (FY) 1999 through 2002. Of these 268 million aircraft operations, 1,480 resulted in a runway incursion. That is approximately six runway incursions for every one million operations. Of the 1,480 incursions, four resulted in collisions. One of these collisions resulted in four fatalities.

The Federal Aviation Administration (FAA) Office of Runway Safety staff consists of a multidisciplinary team of aviation experts who analyze runway incursions on a regular basis and systematically categorize the severity of each event. This report presents an analysis of runway safety trends from FY 1999 through FY 2002 and updates the report published in June 2002.

- Nationally, the number and rate of runway incursions decreased from FY 2001 to FY 2002. The reduction in the number of Category A and C events accounted for the majority of the decrease in the number of runway incursions. The rate of runway incursions decreased from 6.1 to 5.2 runway incursions per million operations. (See page 13).
- From FY 1999 through FY 2002, 85 percent of the runway incursions were Category C and D events that involved little or no risk of a collision. There was also a downward trend in the rate of Category A and B runway incursions. In contrast, the rate of Category D incursions continued to rise during this period. These observations and a lack of a downward trend in the runway incursion rate across the four-year period suggest that, although there has been some influence in mitigating the severity of runway incursions, more understanding is needed about the relationships between variables that contribute to risk in surface operations. (See page 15).
- Of the ten Category A runway incursions in FY 2002, two events were operational errors/deviations, six events were pilot deviations, and two events were vehicle/pedestrian deviations. The identification of a runway incursion as an operational error/deviation, a pilot deviation, or a vehicle/pedestrian deviation is not an identification of the cause of a runway incursion; it is a classification of an error type. (See page 17).
- From FY 1999 through FY 2002, general aviation represented 58 percent of all aircraft operations whereas commercial aviation represented 38 percent. Military operations represented the remaining 4 percent of aircraft operations. Runway incursions most often involved two general aviation aircraft. In FY 2002, there were zero Category A runway incursions involving two commercial aircraft and six Category A runway incursions involving two general aviation aircraft. (See page 22).

- The FAA considers the 35 airports identified in the FAA Operational Evolution Plan (OEP) to be the primary drivers of NAS performance in terms of system capacity. These airports are being targeted for capacity improvements to meet the future traffic demand over the next decade. As the accommodation of this demand may affect surface safety, it is important to understand runway incursion trends at these airports to anticipate and address potential risks. Runway incursion trends for the OEP-35 airports were relatively stable from FY 1999 through FY 2001. The first improvement—a 31 percent decrease in the number of runway incursions—occurred in FY 2002. The rate of incursions also decreased from 6.6 incursions per million operations in FY 2001 to 4.9 runway incursions per million operations in FY 2002. (See page 23).
- 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 (GA-35 airports). From FY 1999 through FY 2001, the number of runway incursions at the GA-35 airports slightly increased. There were 67 runway incursions at the GA-35 airports in FY 2002. The rate of runway incursions consistently increased from FY 1999 through FY 2001 when it reached its peak of 7.4 incursions per million operations. In FY 2002, the runway incursion rate decreased to 7.1 incursions per million operations. (See page 29).
- A preliminary analysis revealed that similar unauthorized actions that occurred on or near a runway were represented in both runway incursions and surface incidents. The identification of the individual errors that comprise runway incursions and surface incidents is a first step toward understanding the causes of these incidents. (See page 35).

Armed with an improved understanding of historical runway incursion trends and an improved process for collecting, analyzing, and communicating runway safety information, the FAA and the aviation community are making progress toward achieving Department of Transportation and FAA runway safety goals. Runway safety management, however, is not a static victory. Rather, it is the dynamic management of both current and emerging risks. Therefore, the FAA Office of Runway Safety will continue working to provide analyses and develop strategies to identify collision risks on the runway and influence their resolution.

## INTRODUCTION

The United States National Airspace System (NAS) has more than 480 FAA/contract towered airports that handle over 180,000 aircraft operations—takeoffs and landings—a day, or approximately 67 million airport operations per year. Of the approximately 268 million operations at United States towered airports from fiscal year (FY) 1999 through FY 2002, there were 1,480 runway incursions. That is approximately six runway incursions for every one million operations. Four of the 1,480 incursions resulted in collisions on the runway. One of these collisions involved four fatalities. Of the more than 480 airports, 310 airports reported at least one runway incursion during this four-year period.

**Of the approximately 268 million operations at United States towered airports from FY 1999 through FY 2002, there were 1,480 runway incursions. That is approximately six runway incursions for every one million operations.**

Overall, the number of aircraft operations at United States towered airports decreased by 2 percent this past fiscal year (FY 2002). This effect was largely due to the impacts of the declining United States economy and the events of September 11, 2001 on the airline industry. However, in FY 2002, many airports were operating at or above pre-September 11 traffic levels during peak periods. The FAA expects the demand for aviation services nationwide to rebound and reach pre-September 11 levels in the year 2006. Although air traffic demand is returning, the demand profile is qualitatively different from previous forecasts. Emerging aviation industry trends and business models include the increased use of regional jets, low-fare carriers offering point-to-point travel to reliever airports (as opposed to large hub airports), and an increase in air charter flights and fractional ownership operators. These aviation industry trends not only change the air traffic demand characteristics, but may also affect airport dynamics and runway incursion potential.

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. This shared responsibility is reinforced by a system of "checks and balances" that includes: operational procedures such as pilot readbacks of controller clearances; airport infrastructure such as signage, 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 1999 through FY 2002 and expands on the analyses presented in previous FAA Runway Safety reports.

## Background

The FAA collects and analyzes aviation safety data including data on airport surface operations. United States airports with air traffic control towers report the occurrence of surface incidents, which may take place in the runway environment or other airport movement areas. The FAA Office of Runway Safety reviews all surface incidents and identifies a subset of these incidents as runway incursions.

**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.**

The FAA defines a *runway incursion* as 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.

Surface incidents that are not classified as runway incursions include: a) incidents where an aircraft, vehicle, or pedestrian entered a runway without a clearance but another aircraft was not present, and b) events that occurred on the airport surface excluding the runway, such as incidents between aircraft on a taxiway or in the ramp area. For ease of discussion in this report, these non-runway incursion events are simply referred to as surface incidents. The formal definitions are provided in the figure below.

Traffic volume is commonly viewed as the principal factor that may influence the number of runway incursions. As traffic volume increases, the possible operational scenarios and opportunities for error increase; that is, each additional aircraft operation represents at least one potential added interaction with each existing aircraft on the surface.

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 the influence of some of these factors.

**Surface Incident**

A surface incident is defined as 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.

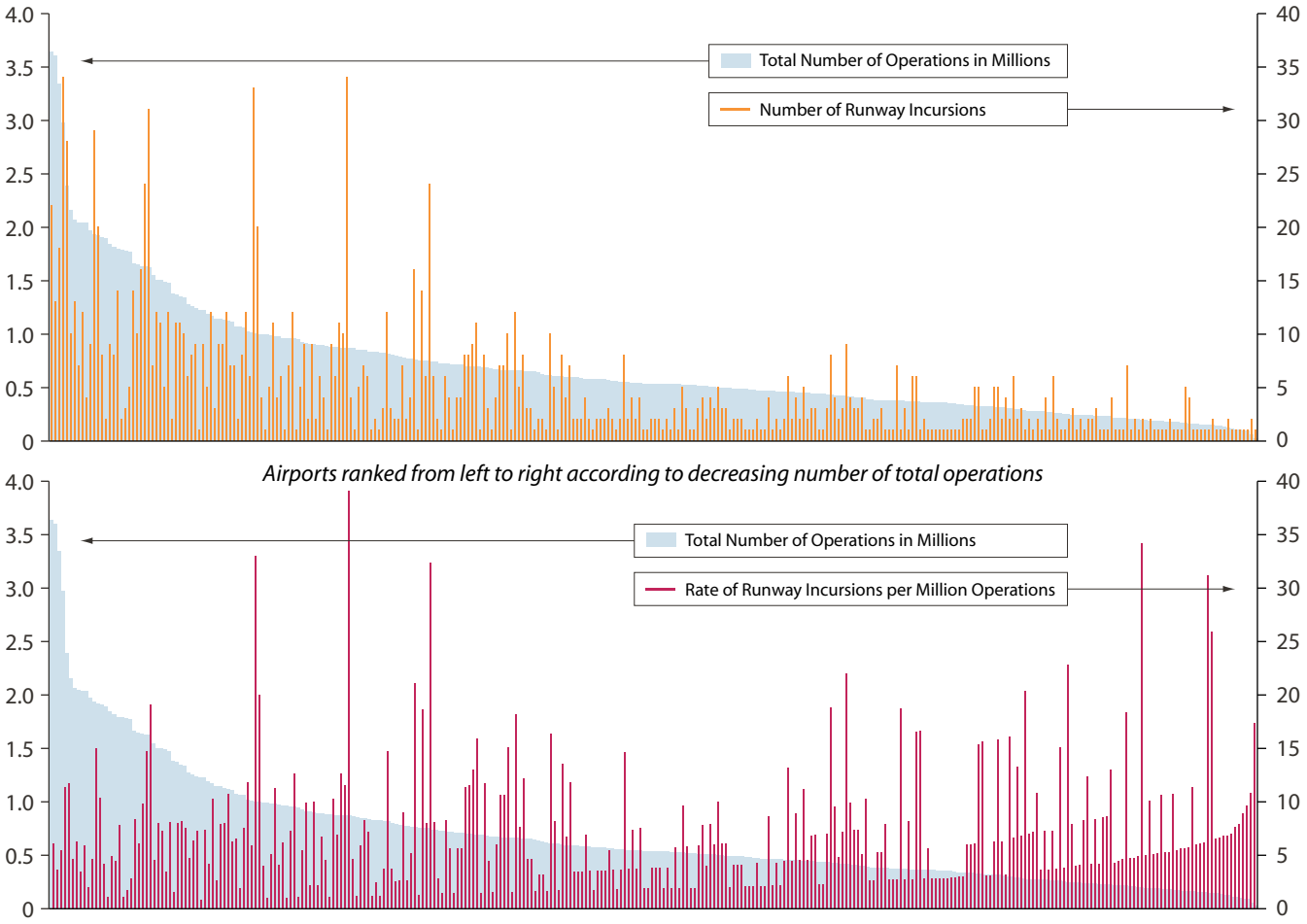
**Runway Incursion**

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.

**Non-Runway Incursion**

A surface incident that does not meet the criteria for a runway incursion is classified as a non-runway incursion. These events involve aircraft, vehicles, pedestrians, or objects on the runway or within the airport movement area without permission. There is no collision hazard or loss of separation during these events.

**Figure 1:**
*The Relationship Between Traffic Volume and the Number and Rate of Runway Incursions at U.S. Towered Airports from FY 1999 through FY 2002*




## Purpose

This report presents an analysis of runway safety trends from FY 1999 through FY 2002 and updates the Runway Safety Report published in June 2002. The FAA Office of Runway Safety intends to use the information in this report to:

- Prioritize and implement runway safety objectives to reduce the severity, number, and rate of runway incursions at towered airports across the United States;
- Broaden the understanding of the state of runway safety by investigating runway incursion trends and the relationship between surface incidents and runway incursions;
- Measure progress toward achieving goals for improving runway safety; and
- Continue to develop prospective runway safety management strategies to anticipate and manage emerging risks.

**Traffic volume explains some of the variation in the number of runway incursions at airports across the United States. However, airport-specific operations, procedures, and infrastructure also contribute to the variation in runway incursions among airports.**

## Approach

This report assesses the state of runway safety in the United States by analyzing all runway incursions from FY 1999 through FY 2002. The FAA Office of Runway Safety uses a four-year window of runway incursion data to correspond to the performance goals set forth by the U.S. Department of Transportation.

In the two previous FAA Runway Safety Reports, the FAA Office of Runway Safety presented runway incursion trends by calendar year. However, the Government Performance and Results Act (GPRA) requires federal agencies to establish standards for measuring performance and effectiveness on a fiscal-year basis. The government fiscal year is defined as the period from October through September. To comply with the GPRA requirement, the FAA now reports runway incursion trends on a fiscal-year basis, as represented in this report.

### 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 were used to examine runway safety trends from several vantage points—annual trends, trends for different classes of aircraft, and trends across airports—to provide insight for developing and implementing runway safety risk management strategies.

*Frequency of Occurrence*

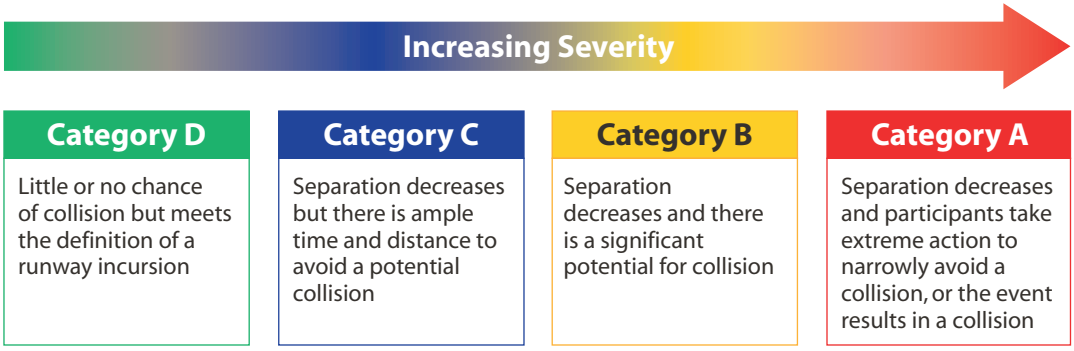
This report references both the number and the rate of runway incursions in discussions of runway safety trends. The number of occurrences provides a description of magnitude. The rate describes how often events occur for a given number of operations over a period of time. The rate also serves as a basis for comparing runway safety trends among airports, as it accounts for the different number of operations at each airport.

*Runway Incursion Severity*

The FAA Office of Runway Safety reconstructs each runway incursion using the available information and plots the location of each runway incursion on airport diagrams to visualize the circumstances involved in the events. The FAA conducts this exercise to systematically categorize each runway incursion in terms of severity to determine the margin of safety associated with each event. Appendix B contains a history of the FAA's classification of runway incursion severity. ***Figure 2*** presents a description of the four runway incursion severity categories. The inset on page 10 presents examples of runway incursions for each of the severity categories.

The FAA categorizes the events for which only limited information is available in a conservative manner, placing them in a more severe category. Between FY 1999 and FY 2002, three runway incursions did not contain adequate information to support a reliable categorization of severity. Appendix B.3 contains a table with supporting information on these three events.

**Figure 2:**
*Runway Incursion Severity Categories*




*Types of Incidents*

The FAA divides runway incursions into the following three error types: operational errors/deviations, pilot deviations, and vehicle/pedestrian deviations. These error types are most useful for identifying the party responsible for an incident. However, these error types are of limited use in determining why a runway incursion happened because they provide no indication of the error mechanisms or factors that contributed to the incident. The FAA acknowledges that these error types are operationally linked and identify only a single error in what is usually a series of events leading up to an incident. To obtain more information about the operational context in which the errors occurred, this runway safety analysis used information from the narratives of runway incursion reports and a reconstruction of the events on airport diagrams for improved visualization of the chain of events.

**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**

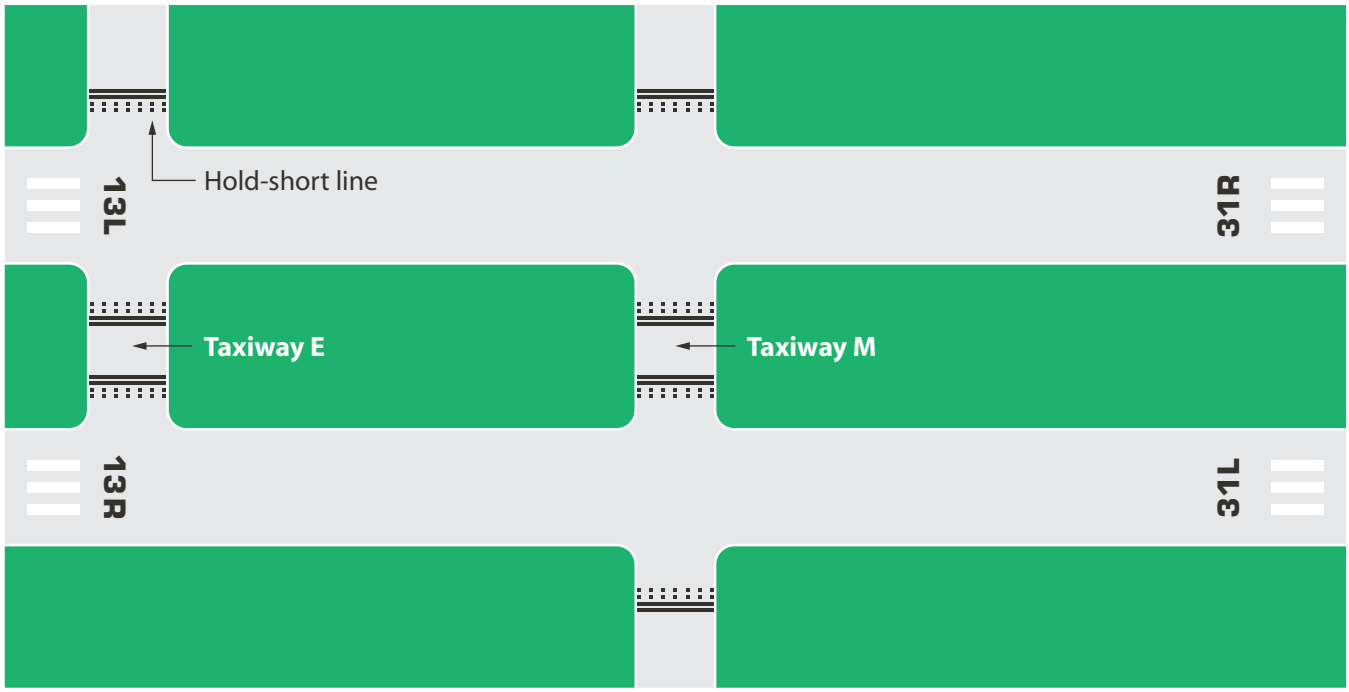
A pilot deviation (PD) is an action of a pilot that violates any Federal Aviation Regulation. For example, a pilot fails to obey air traffic control instructions to not cross an active runway when following the authorized route to an airport gate.

**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.

**Examples of Runway Incursions and Severity Categories**




Airport diagram not to scale

**Category A Example**

Aircraft A was cleared to land on Runway 31L. The pilot correctly read back the clearance but landed on Runway 13L. Aircraft B landed on Runway 31R at the same time. Both aircraft came to a stop abeam Taxiway M facing each other. The closest proximity for these two aircraft was estimated to be 100 feet.

**Category B Example**

Aircraft A was cleared to land on Runway 13L but landed on Runway 13R without authorization, overflying Aircraft B by 200 feet vertical, which was holding in position on the approach end of Runway 13R. Aircraft A touched down 1,500 feet from the approach end of the runway.

**Category C Example**

Aircraft A was being taxied by a mechanic and was instructed to hold short of Runway 13L at Taxiway M. Aircraft A correctly read back the instruction. Aircraft B landed on Runway 13L. While Aircraft B was still rolling out, Aircraft A crossed Runway 13L without authorization. The closest proximity between these aircraft was estimated to be over 4,000 feet.

**Category D Example**

Aircraft A was instructed to hold short of Runway 13L at Taxiway E and correctly read the instruc-- tions back. When Aircraft B was on a 1/4 mile final to Runway 13L, it was observed that Aircraft A had crossed the hold short lines. ATC instructed Aircraft B to go around. No loss of separation was reported between these aircraft.

**Methodology**

The FAA Office of Runway Safety provided the data for the 1,480 runway incursions from FY 1999 through FY 2002 that represent the basis for this runway safety analysis. Runway incursions were examined for each year across the four severity categories to identify trends for the four-year period and highlight any changes in severity and frequency from FY 2001 to FY 2002.

In addition, runway incursions were analyzed according to the different classes of aircraft operations represented in the NAS—commercial (COMM), general aviation (GA), and military operations (MIL)—to address these different operational perspectives. The aircraft operation classes represented in this report are defined as:

- ***COMM*** – Commercial operations are 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 class of aircraft operations includes jet transports and commuter aircraft.
- ***GA*** – 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 class 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 Learjet LR55 or Cessna Citation C550.
- ***MIL*** – Military operations include all United States military operations at civilian towered airports.

Airport trends were analyzed to foster a better understanding of how airport-specific attributes may affect runway safety by providing opportunities for, or defenses against, runway incursions. The interactions among airport-specific attributes (for example, configuration, infrastructure, technology, and procedures) and external stressors such as weather, traffic mix, and traffic density influence an airport's runway incursion potential. These interactions must be understood and addressed for proactive risk mitigation.

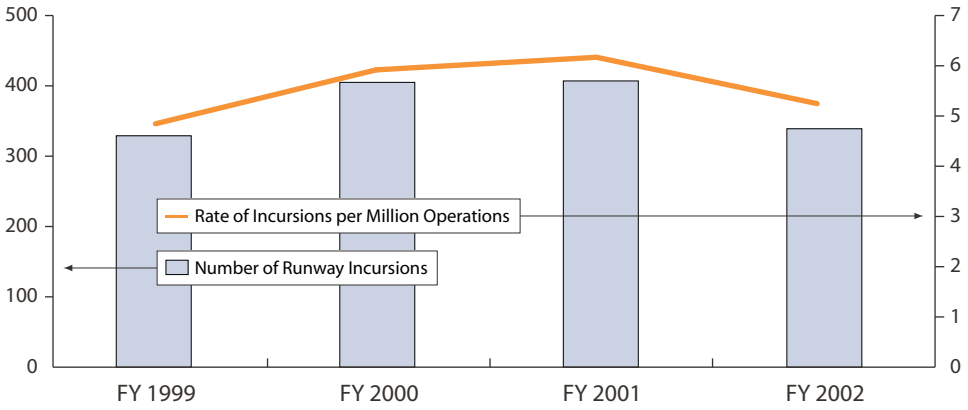
## FINDINGS

The following sections present runway safety metrics for FY 2001 and FY 2002 to provide the reader with an indication of changes that have occurred over the past fiscal year. Four-year statistics are also presented to provide an indication of runway incursion trends. In addition to discussing the number of runway incursions, the rate is included whenever relevant. The rate controls for variations in the number of aircraft operations and provides a normalized reference point for making comparisons.

**From FY 2001 to FY 2002, the total number of runway incursions decreased by 68 events (17 percent).**

### Frequency of Runway Incursions

**Figure 3:**
*Number and Rate of Runway Incursions from FY 1999 through FY 2002*




| | | | | |
|---|---|---|---|---|
| Number of Runway Incursions | 329 | 405 | 407 | 339 |
| Rate of Runway Incursions per Million Operations | 4.8 | 5.9 | 6.1 | 5.2 |
| Total Number of Operations | 68,104,708 | 68,685,741 | 66,188,785 | 64,876,846 |

***Figure 3*** depicts the number and rate of runway incursions reported by towered airports from FY 1999 through FY 2002. From FY 2001 to FY 2002, the total number of runway incursions decreased by 68 events (17 percent) and the runway incursion rate also decreased from 6.1 to 5.2 incursions per million operations. The FY 2002 runway incursion rate of 5.2 incursions per million operations means that a runway incursion was reported once a day on average during FY 2002.

**Annual fluctuations in traffic volume *did not have a predictable effect* on the runway incursion trends for the four-year period.**

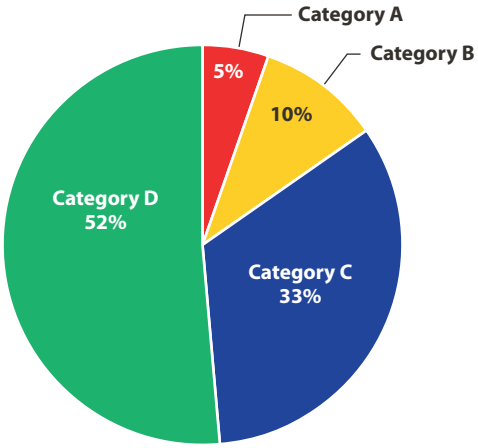
Annual fluctuations in traffic volume *did not have a predictable effect* on the number of runway incursions. Aircraft operations increased by approximately 580,000 from FY 1999 to FY 2000, and the number of runway incursions increased by 76 events. In contrast, aircraft operations decreased by nearly 2.5 million from FY 2000 to FY 2001—the largest decrease of the four-year period—

yet the number of runway incursions increased by two events. In FY 2002, aircraft operations decreased by approximately 1.3 million as compared to the previous year, and the number of runway incursions also decreased by 68 events. These variations suggest that airport-specific factors such as infrastructure, environment, procedures, and operations interact with traffic volume to affect the opportunities for runway incursions—but more work is needed to understand the influence of these factors. For example, high-traffic volume, complex and high-frequency communications, runway crossings, and traffic mix at the local level may influence the occurrence and risk of runway incursions.

## Severity of Runway Incursions

**Figure 4**

*Runway Incursion Severity Distribution from FY 1999 through FY 2002*



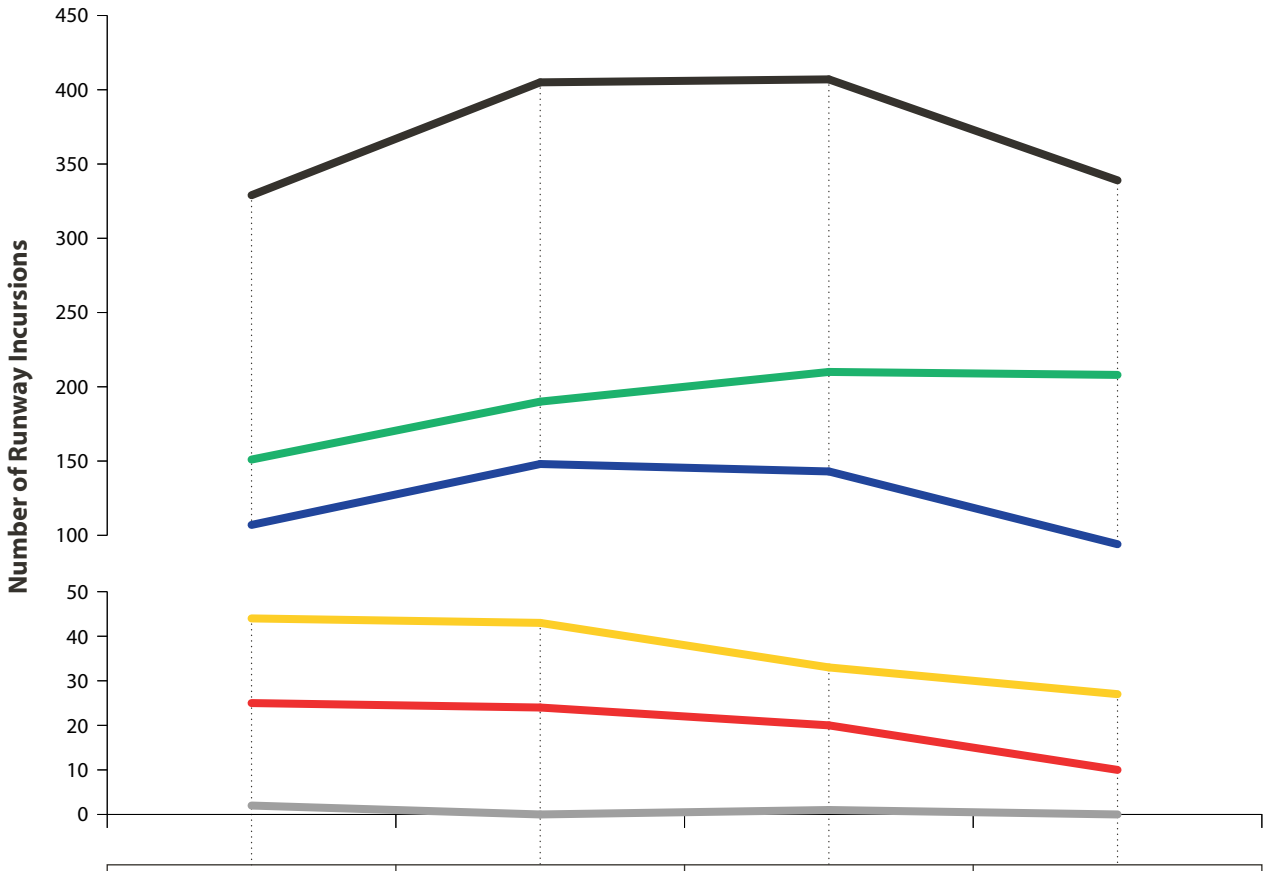

**Total Runway Incursions = 1,477***

***NOTE:** Three events that did not contain adequate information to support a reliable categorization of severity were excluded from this distribution.

***Figure 4*** presents the national distribution of runway incursions by severity category from FY 1999 through FY 2002. Eighty-five percent of the runway incursions during this period were Category C and D events, which involved little or no risk of collision. The remaining 15 percent of the runway incursions were Category A and B events, which involved a decrease in separation between an aircraft and another aircraft, vehicle, or pedestrian that posed significant potential for a collision. Specific examples of runway incursions for each of the four severity categories are presented on page 10 of this report.

**Eighty-five percent of the runway incursions from FY 1999 through FY 2002 were Category C and D events, which involved little or no risk of collision.**

**Figure 5:**
*Number and Rate of Runway Incursions by Severity Category*




| | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | |
|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| **Category D** | 151 | 2.2 | 190 | 2.8 | 210 | 3.2 | 208 | 3.2 |
| **Category C** | 107 | 1.6 | 148 | 2.2 | 143 | 2.2 | 94 | 1.4 |
| **Category B** | 44 | 0.6 | 43 | 0.6 | 33 | 0.5 | 27 | 0.4 |
| **Category A** | 25 | 0.4 | 24 | 0.3 | 20 | 0.3 | 10 | 0.2 |
| **Insufficient Data** | 2 | | 0 | | 1 | | 0 | |
| **Total** | 329 | 4.8 | 405 | 5.9 | 407 | 6.1 | 339 | 5.2 |

***Figure 5*** depicts runway incursion trends by severity categories for the past four fiscal years. A reduction in the number of Category A and C events accounted for 87 percent of the total decrease in the number of runway incursions in FY 2002 compared to FY 2001. During this period, the number of Category A runway incursions decreased from 20 to 10 events and the number of Category C runway incursions decreased from 143 to 94 events. In FY 2002, the rates of Category A, B, and C runway incursions reached their lowest levels of the four-year period.

**In FY 2002, the rates of Category A, B, and C runway incursions reached their lowest levels of the four-year period.**

The consistent downward trend for the rates of Category A and B events during this four-year period demonstrates *progress in mitigating the severity* of runway

incursions. Although the national runway incursion rate for FY 2002 indicates that a runway incursion happened on average once a day, 85 percent of these incursions were Category C and D events involving little or no risk of a collision. Category A and B events occurred on average once every ten days in FY 2002. The decrease in the national runway incursion rate from FY 2001 to FY 2002 demonstrates *recent progress in runway incursion prevention*. However, in contrast to severity trends, there has not been a downward trend in the runway incursion rate over the four-year period. This observation and the continued rise in the Category D runway incursion rate over the four-year period suggest that more understanding is needed about the relationships between variables that contribute to risk in surface operations.

**Figure 6:**
*Four Runway Collisions occurred from FY 1999 through FY 2002*

**Of the four runway collisions that occurred from FY 1999 through FY 2002, one collision resulted in four fatalities.**

| Date of Incident | Airport ID | Airport Location | Brief Summary |
|---|---|---|---|
| 03/09/00 | 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. |
| 05/10/00 | 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. |
| 04/06/02 | 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. |

***Figure 6*** presents the runway collisions that have occurred from FY 1999 through FY 2002. Three of these collisions (SRQ, VNY, LAL) involved pairs of general aviation aircraft, and two of these events included a controller instructing an aircraft to hold in position for take off at an intersection. The collision at LAL involved a general aviation aircraft that landed on the wrong runway. Lastly, the collision at FLL involved a jet transport that had an in-flight emergency and collided with a temporary closure sign when landing on a closed runway. The collision at SRQ was the only one of the four collisions to involve fatalities.

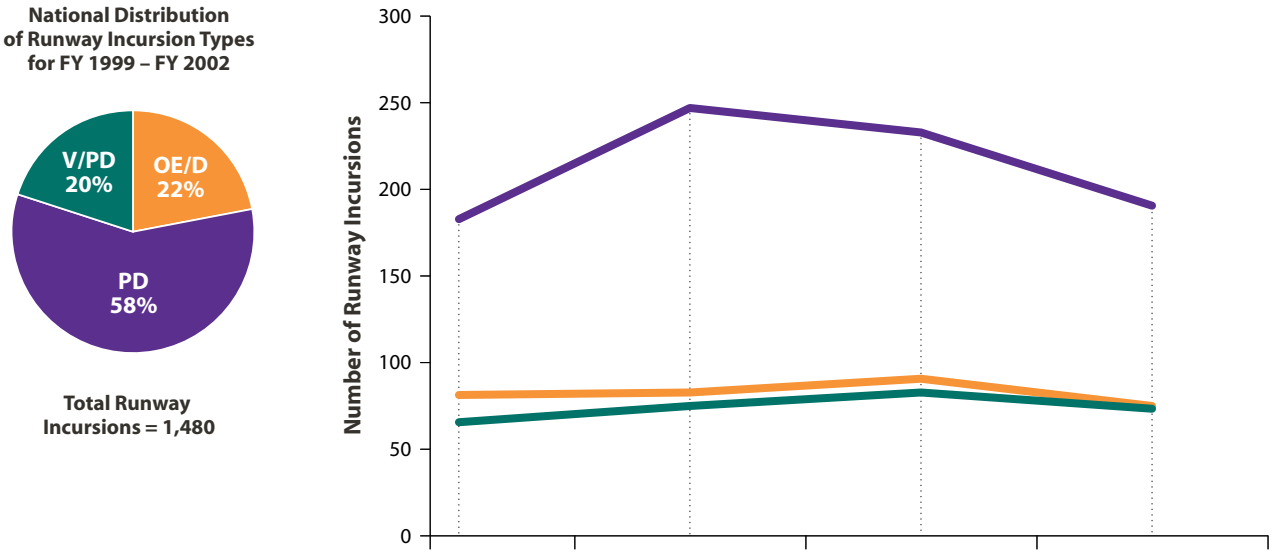
## Types of Runway Incursions

***Figure 7*** presents the distribution of the types of runway incursions—operational errors/deviations, pilot deviations, vehicle/pedestrian deviations—from FY 1999 through FY 2002. The identification of a runway incursion as an operational error/deviation, a pilot deviation, or a vehicle/pedestrian deviation is *not an identification of the cause of the runway incursion*; it is a classification of an error type. These identifications typically reference the last event in the chain of pilot, controller, or vehicle operator actions that led up to a runway incursion.

For the four-year period, the majority (58 percent) of runway incursions involved pilot deviations whereas a nearly equal percentage of events were attributed to operational errors/deviations and vehicle/pedestrian deviations.

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

**Figure 7:**
*Number and Rate of Runway Incursion Types from FY 1999 through FY 2002*



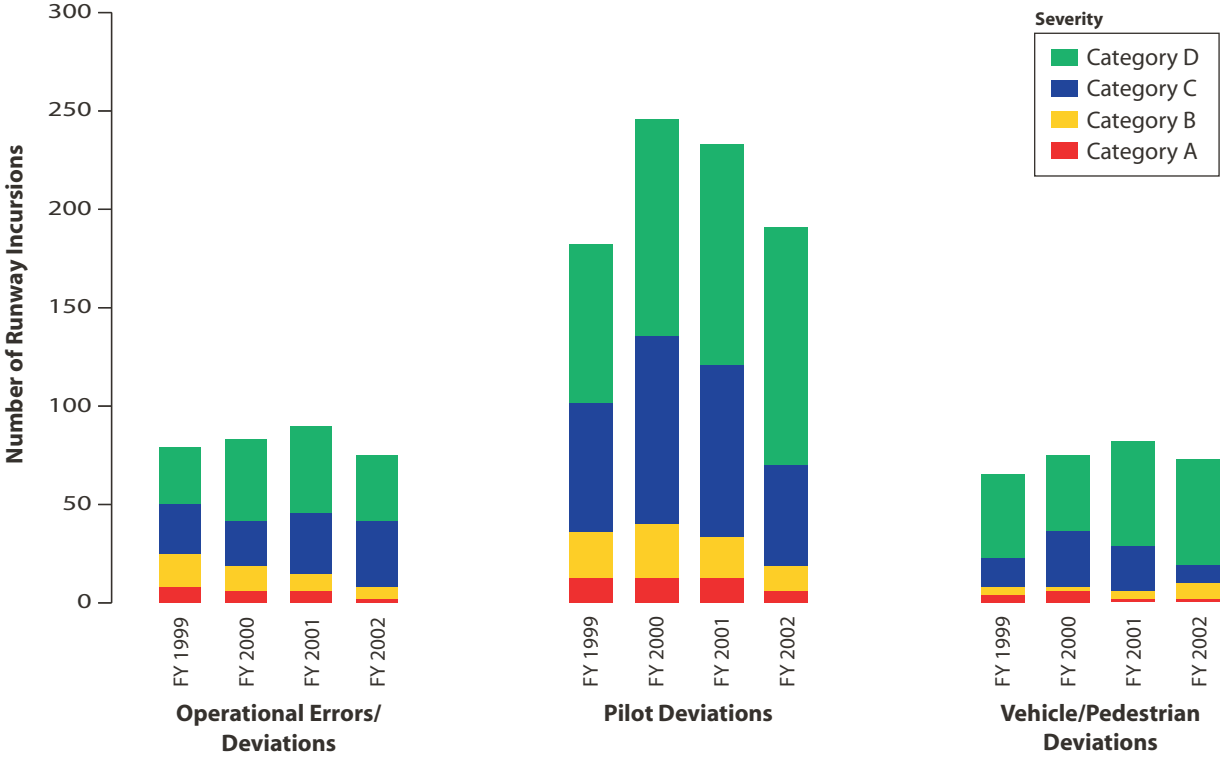

| | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | |
|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| **Pilot Deviations** | 183 | 2.7 | 247 | 3.6 | 233 | 3.5 | 191 | 2.9 |
| **Operational Errors/Deviations** | 81 | 1.2 | 83 | 1.2 | 91 | 1.4 | 75 | 1.2 |
| **Vehicle/Pedestrian Deviations** | 65 | 1.0 | 75 | 1.1 | 83 | 1.3 | 73 | 1.1 |

### Operational Errors/Deviations

***Figure 8*** shows that the number of runway incursions attributed to operational errors/deviations decreased by 16 events from FY 2001 to FY 2002. This reduction is accounted for by a decrease in Category A and D operational errors/deviations by five and ten events, respectively, during this period. One event did not contain sufficient information to support a reliable severity classification.

From FY 1999 to FY 2002, 330 runway incursions (22 percent) were attributed to operational errors/deviations. ***Figure 7*** shows that the average annual rate of operational errors/deviations was 1.2 events per million operations—or about one operational error/deviation every 4.5 days. Over the four-year period, the rate of operational errors/deviations remained relatively stable.

**Figure 8:**
*Severity of Runway Incursion Types from FY 1999 through FY 2002*




Runway incursions attributed to operational errors/deviations ranged from the loss of separation between two aircraft on the same runway to improper clearances granted by controllers or incorrect readbacks by pilots for operations on closed runways that went undetected by the controller. The two Category A operational errors in FY 2002 consisted of: (1) a controller not attending to an incorrect pilot readback, which led to two general aviation aircraft on a runway with reduced separation; and (2) a controller instructing a general aviation aircraft to taxi-into-position-and-hold on a runway in front of a landing general aviation aircraft, which resulted in a collision between these two general aviation aircraft.

**Of the 75 operational errors/deviations that occurred in FY 2002, two were Category A events whereas 34 were Category D events.**

### Pilot Deviations

From FY 2001 to FY 2002, the number of pilot deviations decreased by 42 events. The number of Category C pilot deviations showed the most notable decrease with 37 fewer events in FY 2002 than in FY 2001.

Over the four-year period, 854 runway incursions (58 percent) were attributed to pilot deviations. The number of Category A and B pilot deviations progressively decreased during this period. In FY 1999, there were 13 Category A pilot deviations compared to only six Category A events in FY 2002. Category B pilot deviations decreased from 24 events in FY 1999 to 14 events in FY 2002. Category C pilot deviations showed a recent decrease in FY 2002 whereas the number of Category D pilot deviations steadily increased during the four-year period, from 81 events in FY 1999 to 120 events in FY 2002.

***Figure 7*** shows that in FY 2002, pilot deviations occurred at approximately three times the rate of operational errors/deviations and vehicle/pedestrian deviations. The rate of pilot deviations decreased for the second consecutive fiscal year, from a high of 3.6 pilot deviations per million operations in FY 2000 to 2.9 pilot deviations per million operations in FY 2002—or about one pilot deviation every 1.7 days.

**Of the 191 pilot deviations that occurred in FY 2002, six incursions were Category A events whereas 120 incursions were Category D events.**

Pilot deviations ranged from an aircraft crossing the hold short line without authorization to aircraft departing the runway without authorization after acknowledging a taxi-into-position-and-hold clearance. There were six Category A pilot deviations during FY 2002. In two of these events, a general aviation aircraft used a wrong runway after acknowledging a clearance to the correct runway. Three events involved a pilot entering a runway without authorization from an air traffic controller. One event involved a pilot who landed on the wrong runway that was already occupied by another general aviation aircraft, which resulted in a collision.

### Vehicle/Pedestrian Deviations

In FY 2002, the number of vehicle/pedestrian deviations decreased by ten events as compared to the previous fiscal year. From FY 1999 through FY 2002, 296 runway incursions (20 percent) were attributed to vehicle/pedestrian deviations. The rate of vehicle/pedestrian deviations was relatively stable across this four-year period as presented in ***Figure 7***. The average annual rate was 1.1 vehicle/pedestrian deviations per million operations—or about one vehicle/pedestrian deviation every 4.9 days. Runway incursions attributed to vehicle/pedestrian deviations occurred at a similar rate as runway incursions attributed to operational errors/deviations.

**Of the 73 vehicle/pedestrian deviations that occurred in FY 2002, two were Category A events whereas 54 were Category D events.**

Runway incursions involving vehicle/pedestrian deviations consisted of vehicles or pedestrians entering a runway without communication or authorization from a controller, vehicles entering a runway at an incorrect intersection, or non-pilots

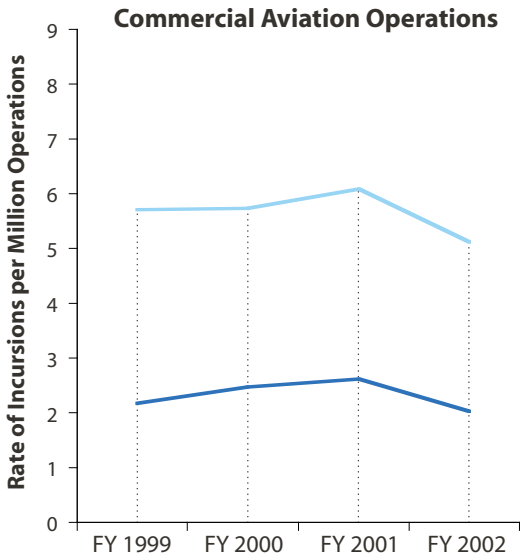
taxiing or towing aircraft. In FY 2002, two vehicle/pedestrian deviations were Category A runway incursions. These runway incursions were attributed to unauthorized individuals (a child in one event and a vehicle driver in the second event) who entered the runway environment without controller authorization and conflicted with an aircraft that was over the landing threshold of a runway. The opportunity for unauthorized individuals to become involved in runway incursions will decrease as airport security measures are increased.

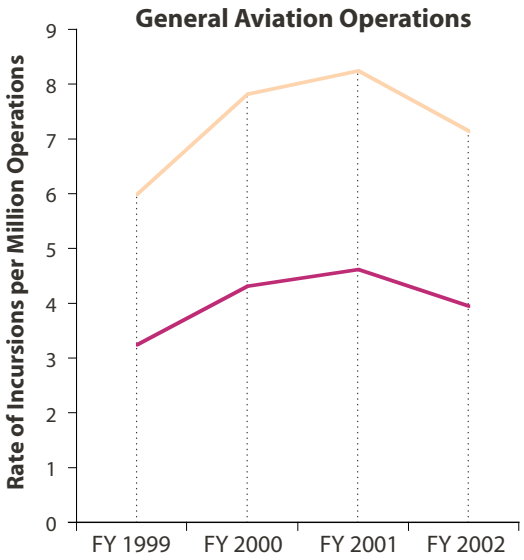
## Trends for Commercial and General Aviation Operations

The FAA examined commercial aviation and general aviation operations to determine their involvement in runway incursions from FY 1999 through FY 2002. During this period, an average of 67 million aircraft operations a year were managed by more than 480 towered airports across the United States. Commercial operations accounted for approximately 38 percent of these operations whereas general aviation operations accounted for approximately 58 percent of aircraft operations—the remaining 4 percent were military operations.

**Figure 9**

*Runway Incursion Rates for Commercial Aviation and General Aviation Operations from FY 1999 through FY 2002*




| | | | | |
|---|---|---|---|---|
| Commercial Runway Incursions | 144 | 149 | 156 | 124 |
| Commercial Runway Incursion Rate | 5.7 | 5.7 | 6.1 | 5.1 |
| COMM/COMM Runway Incursion Rate | 2.2 | 2.5 | 2.6 | 2.0 |
| Commercial Operations | 25,154,647 | 25,919,211 | 25,644,902 | 24,238,924 |

| | | | | |
|---|---|---|---|---|
| General Aviation Runway Incursions | 239 | 312 | 311 | 269 |
| General Aviation Runway Incursion Rate | 6.0 | 7.8 | 8.3 | 7.2 |
| GA/GA Runway Incursion Rate | 3.2 | 4.3 | 4.6 | 3.9 |
| General Aviation Operations | 39,999,547 | 39,878,536 | 37,626,866 | 37,575,650 |

***Figure 9*** presents the runway incursion rates for commercial and general aviation operations to depict how often each class of aircraft operation has been involved in a runway incursion with another aircraft, vehicle, or pedestrian. As the majority of runway incursions (77 percent) involved two aircraft, Figure 9 also shows how often two commercial aircraft (COMM/COMM) or two general aviation aircraft (GA/GA) interacted.

***Figure 9*** (left) shows the rate of runway incursions involving at least one commercial operation across the four-year period. Between FY 1999 and FY 2002, 573 runway incursions (39 percent) involved at least one commercial operation. Over the last fiscal year, the rate of incursions involving at least one commercial operation decreased from 6.1 to 5.1 incursions per million commercial operations —or approximately one event every 2.9 days in FY 2002. The rate of COMM/COMM incursions per million commercial aircraft operations decreased from 2.6 events in FY 2001 to two events in FY 2002—which is approximately one COMM/COMM runway incursion every 7.5 days.

***Figure 10*** presents the severity of runway incursions involving commercial and general aviation operations. From FY 2001 to FY 2002, Category A and B runway incursions involving two commercial aircraft decreased by 12 events, and there were zero Category A COMM/COMM runway incursions in FY 2002. By comparison, over the four-year period, there were 235 runway incursions that involved two commercial aircraft, and 21 of these incursions were Category A events.

**There were zero Category A runway incursions involving two commercial aircraft in FY 2002.**

***Figure 9*** (right) shows the rates of runway incursions involving at least one general aviation operation across the four-year period. Between FY 1999 and FY 2002, 1,131 runway incursions (76 percent) involved at least one general aviation operation. During this past fiscal year, the rate of incursions involving at least one general aviation operation decreased from 8.3 to 7.2 incursions per million general aviation operations—or approximately one event every 1.4 days in FY 2002. The rate of GA/GA incursions per million general aviation aircraft operations decreased from 4.6 events in FY 2001 to 3.9 events in FY 2002—meaning that a GA/GA incursion happened approximately once every 2.5 days.

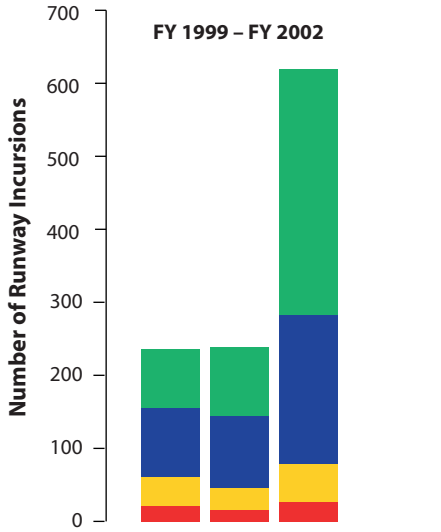
As shown in ***Figure 10***, there was no notable change in the number of Category A and B runway incursions involving two general aviation aircraft from FY 2001 to FY 2002; the most substantial change was the decrease in Category C incursions from FY 2001 to FY 2002 by 19 events in FY 2002 compared to FY 2001.

**Runway incursions most commonly involved two general aviation aircraft.**

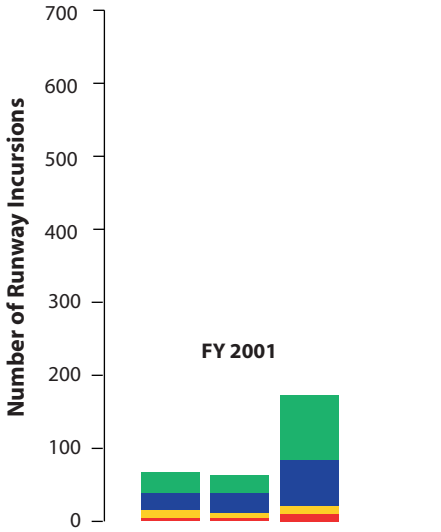
The four-year trend for runway incursion rates for pairs of aircraft operations indicates that runway incursions most frequently involve two general aviation aircraft. Considering that general aviation operations comprise 58 percent of the total number of aircraft operations, there were more opportunities for general aviation aircraft to interact. To further understand this trend, it is necessary to explore the airports where these aircraft operate.

**Figure 10**

*Number of Runway Incursions by Severity Category for Commercial and General Aviation Operations*




| | COMM-COMM | COMM-GA | GA-GA | Total |
|---|---|---|---|---|
| Category D | 80 | 94 | 337 | 511 |
| Category C | 95 | 98 | 203 | 396 |
| Category B | 39 | 30 | 52 | 121 |
| Category A | 21 | 16 | 27 | 64 |
| Total | 235 | 238 | 619 | 1,092* |




| | COMM-COMM | COMM-GA | GA-GA | Total |
|---|---|---|---|---|
| Category D | 28 | 24 | 89 | 141 |
| Category C | 24 | 28 | 63 | 115 |
| Category B | 11 | 7 | 11 | 29 |
| Category A | 4 | 4 | 10 | 18 |
| Total | 67 | 63 | 173 | 303 |

| | COMM-COMM | COMM-GA | GA-GA | Total |
|---|---|---|---|---|
| Category D | 29 | 32 | 83 | 144 |
| Category C | 17 | 17 | 44 | 78 |
| Category B | 3 | 4 | 14 | 21 |
| Category A | 0 | 2 | 6 | 8 |
| Total | 49 | 55 | 147 | 251 |

**This total only includes runway incursions where these three aircraft pairs were involved. This total excludes the three events that did not contain adequate information for a severity categorization.*

## Airport Trends

**The FAA examined runway incursion trends at the airport level to understand how airport-specific factors may influence the frequency, severity, and type of runway incursions.**

To address the various airfield environments where commercial and general aviation aircraft operate, the FAA examined runway incursion trends at the airport level to understand how airport-specific factors—namely traffic composition and traffic volume—may influence the frequency, severity, and type of runway incursions.

In FY 2002, there were 492 towered airports in the United States—306 of these airports reported no runway incursions and 11 airports reported five or more runway incursions. Appendix E provides a listing of the number and rate of incursions for all towered airports for the four-year period.

The following section includes an examination of runway incursion trends at selected airports. Airports identified in the FAA Operational Evolution Plan (OEP)—the OEP-35 airports—are featured because the FAA considers these airports to be the primary drivers of NAS performance in terms of system capacity. These airports include United States airports with high volumes of commer-

cial aircraft operations and incorporate all major air carrier hubs. A second set of 35 airports representing the busiest airports based upon the number of general aviation operations is included to provide a complementary perspective.

### OEP-35 Airports

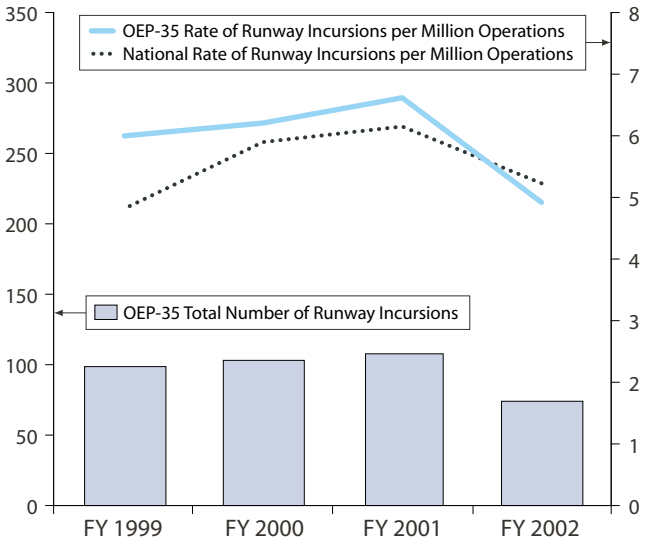
The FAA identified 35 airports in the FAA Operational Evolution Plan (OEP) as targets for capacity and efficiency improvements to meet the traffic demand expected over the next decade. Appendix C.1 provides a list of the names and identifiers for the OEP-35 airports. The projected increase in traffic volume at these airports—and the corresponding changes in airport infrastructure, procedures, and technologies to accommodate this demand—may affect surface safety. Therefore, it is important to understand airport runway incursion trends to better anticipate and manage emerging risks.

**The OEP-35 airports handled 57 percent of all commercial operations at U.S. towered airports between FY 1999 and FY 2002, but only 4 percent of all general aviation operations.**

From FY 1999 through FY 2002, the OEP-35 airports accounted for 57 percent of the total number of commercial aircraft operations, but only 4 percent of the total number of general aviation operations. Most of the OEP-35 airports handled a mix of traffic that consisted of over 80 percent commercial aircraft operations.

**Figure 11**

*Number and Rate of Runway Incursions at the OEP-35 Airports*



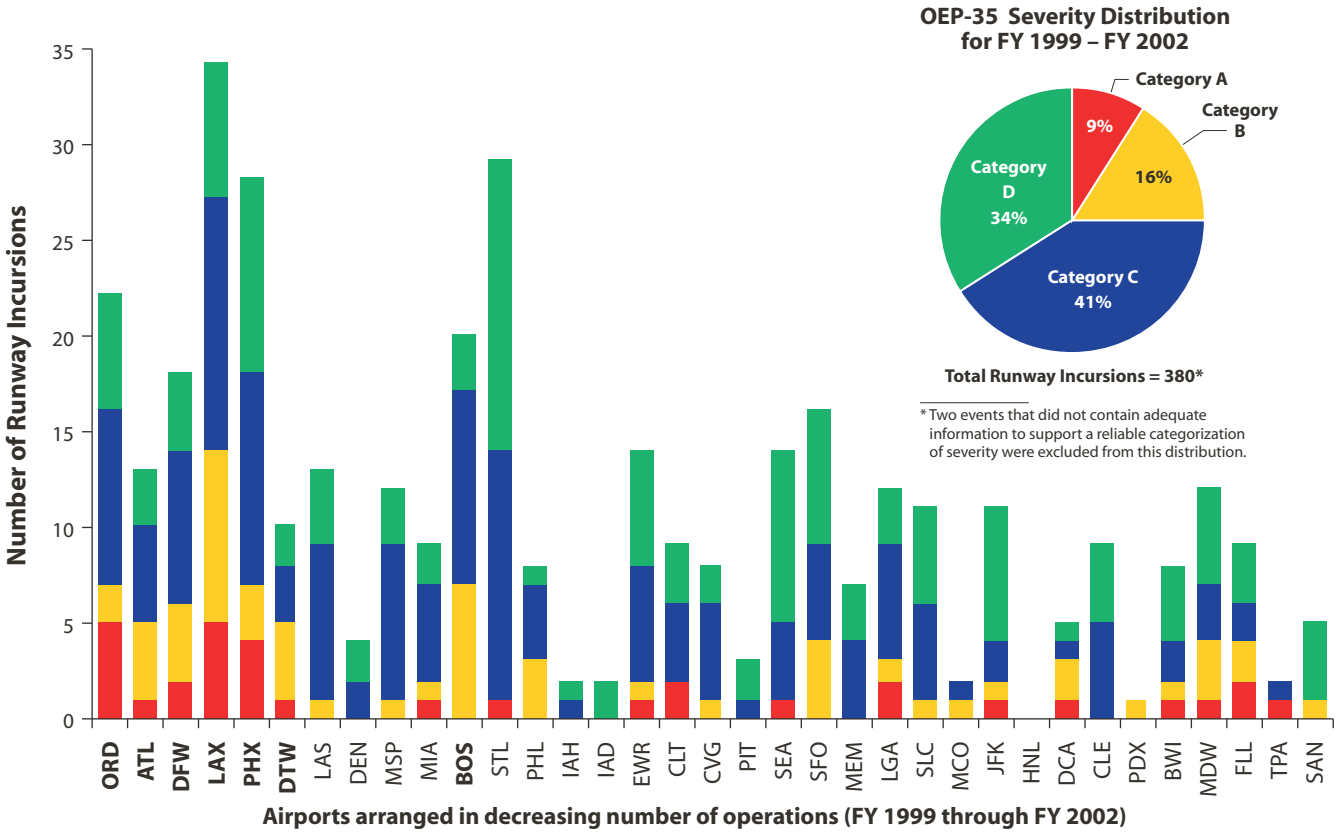

| | | | | |
|---|---|---|---|---|
| OEP-35 Number of Runway Incursions | 98 | 103 | 107 | 74 |
| OEP-35 Rate of Runway Incursions per Million Operations | 6.0 | 6.2 | 6.6 | 4.9 |
| National Rate of Runway Incursions per Million Operations | 4.8 | 5.9 | 6.1 | 5.2 |
| OEP-35 Total Number of Operations | 16,204,806 | 16,552,036 | 16,165,308 | 14,970,663 |

***Figure 11*** presents the runway incursion trends for the OEP-35 airports. The number of runway incursions at the OEP-35 airports decreased from 107 runway incursions in FY 2001 to 74 runway incursions in FY 2002. In addition, the runway incursion rate at the OEP-35 airports decreased from 6.6 runway incursions per million operations in FY 2001 to 4.9 runway incursions per million operations in FY 2002. This was the first year that the OEP-35 runway incursion rate was below the national runway incursion rate.

**In FY 2002, there was a 31 percent decrease in the number of runway incursions at the OEP-35 airports.**

The fiscal year runway incursion trend for the OEP-35 airports was relatively stable from FY 1999 through FY 2001. The first appreciable improvement—a 31 percent decrease in the number of runway incursions—occurred this past fiscal year. FY 2002 also showed a decrease in OEP airport operations by 1.25 million, which likely reduced some opportunity for aircraft to be involved in runway incursions. Continued vigilance with respect to runway safety management at the OEP-35 airports will help to make this decrease in the number and rate of runway incursions a consistent trend.

**Figure 12:**
*Number and Severity of Runway Incursions at the OEP-35 Airports from FY 1999 through FY 2002*




*Airports in bold text represent OEP airports that had 5 or more Category A/B events for FY 1999 – FY 2002. Appendix C.1 provides a list of the names of the OEP-35 airports.*

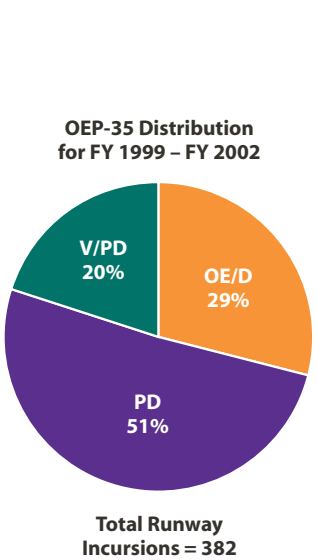
From FY 2001 to FY 2002, there was a decrease in the number of Category A and B runway incursions at the OEP-35 airports. In FY 2001, there was one Category A event at each of the following six OEP airports—DCA, DFW, FLL, MIA, ORD, and SEA. In FY 2002, two airports each had one Category A event—ORD and PHX. The number of *Category B* events decreased from 14 to eight events from FY 2001 to FY 2002.

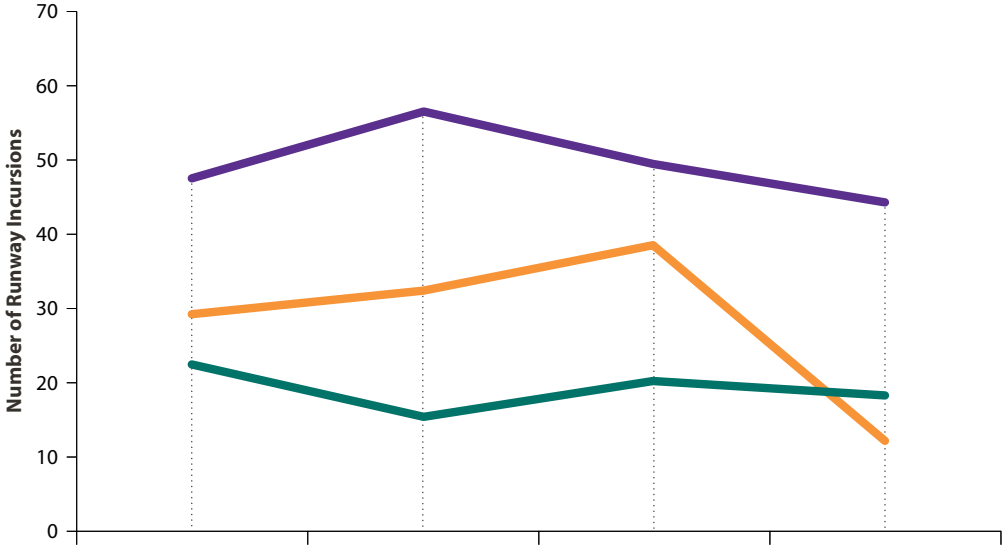
***Figure 12*** lists the OEP-35 airports in descending order of total operations from FY 1999 through FY 2002 and shows the runway incursion severity distributions at each OEP-35 airport for this four-year period. Overall, for the four-year period, 9 percent (33 events) of the runway incursions at the OEP-35 airports were Category A events and 16 percent (59 events) were Category B events.

**From FY 1999 through FY 2002, 25 percent of the runway incursions at the OEP-35 airports were Category A and B events.**

The seven airports listed in bold type in ***Figure 12*** each reported a total of five or more Category A and B runway incursions over the four fiscal years. Six of these OEP-35 airports—ORD, ATL, DFW, LAX, PHX, and DTW—were also the busiest airports in terms of total number of operations. A total of 51 Category A and B events occurred at these six OEP-35 airports during this four-year period—91 percent of these incursions involved a jet transport aircraft. The involvement of jet transports is not surprising considering that most of the OEP-35 airports handled a mix of traffic that was over 80 percent commercial operations.

**Figure 13:**
*Number and Rate of Runway Incursion Types at the OEP-35 Airports from FY 1999 through FY 2002*




| OEP-35 Airports | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | |
|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| **Pilot Deviations** | 47 | 2.9 | 56 | 3.4 | 49 | 3.0 | 44 | 2.9 |
| **Operational Errors/Deviations** | 29 | 1.8 | 32 | 1.9 | 38 | 2.4 | 12 | 0.8 |
| **Vehicle/Pedestrian Deviations** | 22 | 1.4 | 15 | 0.9 | 20 | 1.2 | 18 | 1.2 |

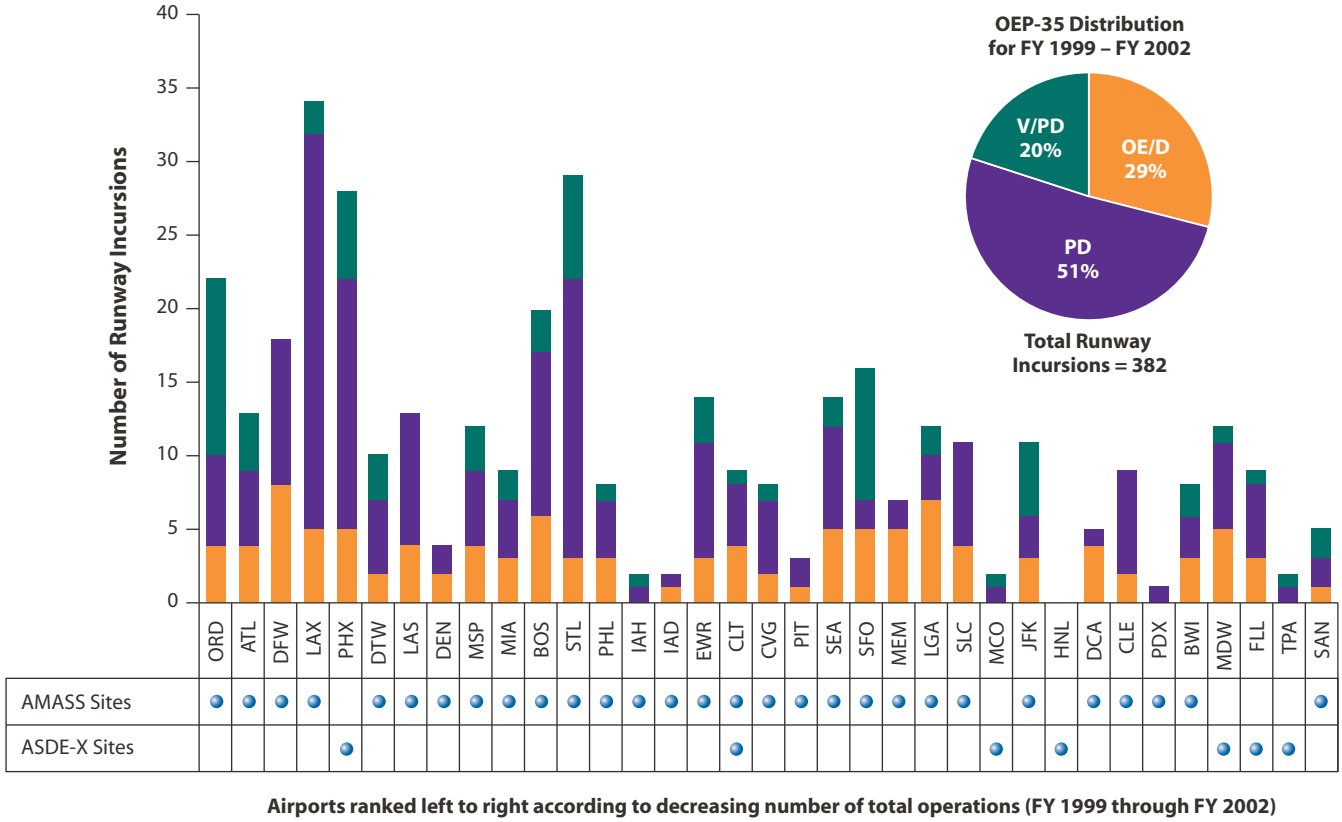
**In FY 2002, the number of operational errors/ deviations for the OEP-35 airports decreased by 68 percent compared to the number for the previous fiscal year.**

***Figure 13*** presents the number and rate of runway incursion types at the OEP-35 airports from FY 1999 through FY 2002. Even though the national rate of operational errors/deviations over the four-year period has been relatively stable, there was a 68 percent decrease in the number of operational errors/deviations for the OEP-35 airports this past fiscal year. The operational error/deviation rate at the OEP-35 airports declined from 2.4 operational errors/deviations per million operations in FY 2001 to 0.8 operational errors/deviations per million operations in FY 2002.

In general, the rate of pilot deviations at the OEP-35 airports over the four-year period has followed a trend similar to the national rate of pilot deviations. In FY 2002, the rate of pilot deviations at the OEP-35 airports was the same as the national rate—2.9 pilot deviations per million operations.

The rate of vehicle/pedestrian deviations at the OEP 35 airports decreased from its four-year peak of 1.4 deviations per million operations in FY 1999 to its four-year low of 0.9 deviations per million operations in FY 2000—a 36 percent decrease. However, the rate of vehicle/pedestrian deviations increased 33 percent in FY 2001 to 1.2 deviations per million operations and remained the same in FY 2002.

**Figure 14:**
*Types of Runway Incursions at the OEP-35 Airports from FY 1999 through FY 2002*



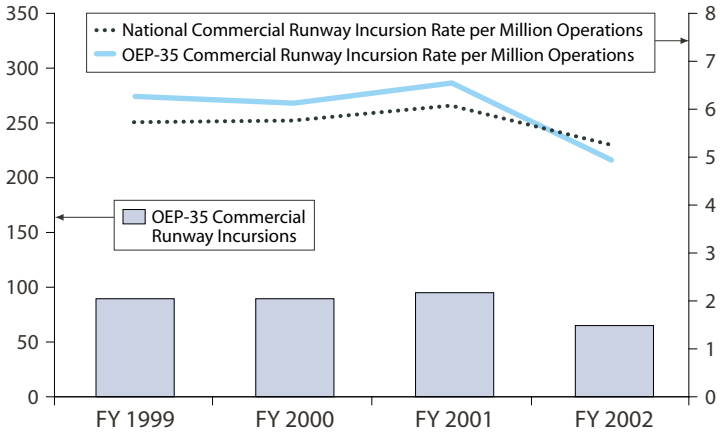

*Appendix C.1 provides a list of the names of the OEP-35 airports.*

***Figure 14*** presents the distribution of runway incursion types at each of the OEP-35 airports from FY 1999 through FY 2002. The OEP-35 airports accounted for 26 percent (382 events) of the total number of runway incursions during this four-year period. Twenty-nine percent (111 events) of the runway incursions at the OEP-35 airports were operational errors/deviations; 51 percent (196 events) were pilot deviations; and 20 percent (75 events) were vehicle/pedestrian deviations. Compared with the four-year national trend, the OEP-35 airports reported a similar distribution of the types of runway incursions.

**The OEP-35 airports accounted for 26 percent of the total number of runway incursions from FY 1999 through FY 2002.**

***Figure 14*** also shows the on-going deployment of safety-related decision support tools—Airport Movement Area Safety System (AMASS) and Airport Surface Detection Equipment-Model X (ASDE-X)—at the OEP-35 airports. These systems provide air traffic controllers with information regarding the positions of aircraft on the airport surface and increase the opportunity for controllers to recognize deviations and mitigate the potential consequences.

**Figure 15:**
*Rates of Commercial Aviation Runway Incursions at the OEP-35 Airports from FY 1999 through FY 2002*




| | | | | |
|---|---|---|---|---|
| OEP-35 Commercial Runway Incursions | 89 | 89 | 95 | 65 |
| OEP-35 Commercial Runway Incursion Rate per Million Operations | 6.2 | 6.1 | 6.5 | 4.8 |
| National Commercial Runway Incursion Rate per Million Operations | 5.7 | 5.7 | 6.1 | 5.1 |
| OEP-35 Total Number of Commercial Operations | 14,351,853 | 14,705,280 | 14,538,057 | 13,574,658 |

From FY 1999 to FY 2002, the OEP-35 airports managed an average of approximately 14 million commercial aircraft operations a year. Considering the large population of commercial aircraft operations served by the OEP-35 airports, the FAA examined the runway incursion trends for commercial operations at the OEP-35 airports during the four-year period. ***Figure 15*** presents the rates of runway incursions for commercial aircraft operations—the commercial aviation runway incursion rate—at the OEP-35 airports.

**From FY 2002, there was a 26 percent decrease in the commercial aviation runway incursion rate at the OEP-35 airports.**

From FY 2001 to FY 2002, the commercial aviation runway incursion rate for the OEP-35 airports decreased from 6.5 to 4.8 incursions per million commercial operations—an average of one commercial incursion every 5.6 days at one of the OEP-35 airports. FY 2002 showed the first substantial decrease in the commercial aviation runway incursion rate at the OEP-35 airports during the four years—a 26 percent decrease in FY 2002 compared to FY 2001. This decrease was consistent with the national trend for the commercial runway incursion rate, which also decreased in FY 2002 for the first time in four years—approximately 16 percent in FY 2002 compared to the previous fiscal year. FY 2002 is the first year that the OEP-35 airport's commercial runway incursion rate fell below the national commercial runway incursion rate.

Given that the OEP-35 airports have a high concentration of commercial traffic and a majority of the commercial runway incursions—57 percent of all commercial operations in the NAS and 59 percent of all commercial runway incursions—changes in the commercial runway incursion rate at the OEP-35 airports have a noticeable influence on the national commercial runway incursion rate. Therefore, runway safety risk management strategies implemented at the OEP-35 airports may impact the national commercial aviation runway incursion rate.

**GA-35 Airports**

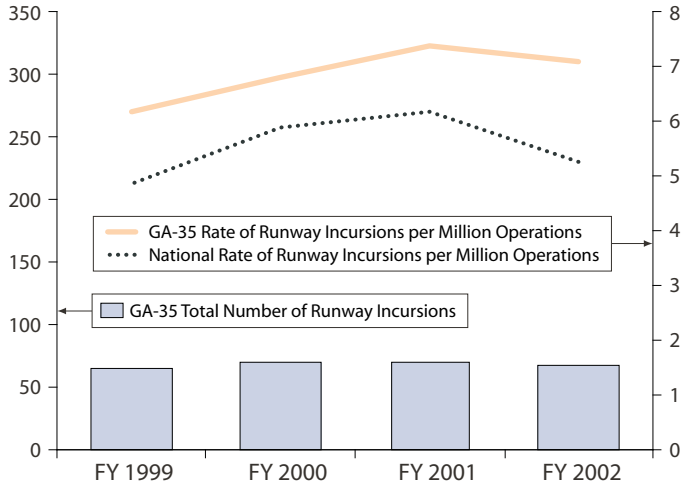
**The GA-35 airports handled 24 percent of the total number of general aviation operations at U.S. towered airports from FY 1999 through FY 2002, but only 2.5 percent of all commercial operations.**

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. These airports were identified on the basis of the total number of general aviation operations handled at each airport during the four-year period. Appendix C.2 provides a list of the names and identifiers of these 35 airports. These airports are referred to as the "GA-35 airports" in the paragraphs that follow.

From FY 1999 through FY 2002, the GA-35 airports handled 24 percent of the total number of general aviation operations and 2.5 percent of the total number of commercial aircraft operations in the NAS. General aviation operations comprised 90 percent of the traffic mix at 31 of the 35 airports whereas the remaining four airfields—BFI, TEB, SNA, OAK—had a more balanced distribution of general aviation and commercial operations.

It is important to note that although these GA-35 airports are the airports most frequently used by the general aviation community, four general aviation airports not included in the GA-35 airports—North Las Vegas (VGT), Concord-Buchanan Field (CCR), Merrill Field (MRI), and Minneapolis Flying Cloud (FCM)—reported between 14 and 34 runway incursions for the four-year period.

**Figure 16:**
*Number and Rate of Runway Incursions at the GA-35 Airports from FY 1999 through FY 2002*




| | | | | |
|---|---|---|---|---|
| GA-35 Number of Runway Incursions | 64 | 69 | 70 | 67 |
| GA-35 Rate of Runway Incursions per Million Operations | 6.2 | 6.8 | 7.4 | 7.1 |
| National Rate of Runway Incursions per Million Operations | 4.8 | 5.9 | 6.1 | 5.2 |
| GA-35 Total Number of Operations | 10,336,144 | 10,202,019 | 9,436,706 | 9,447,623 |

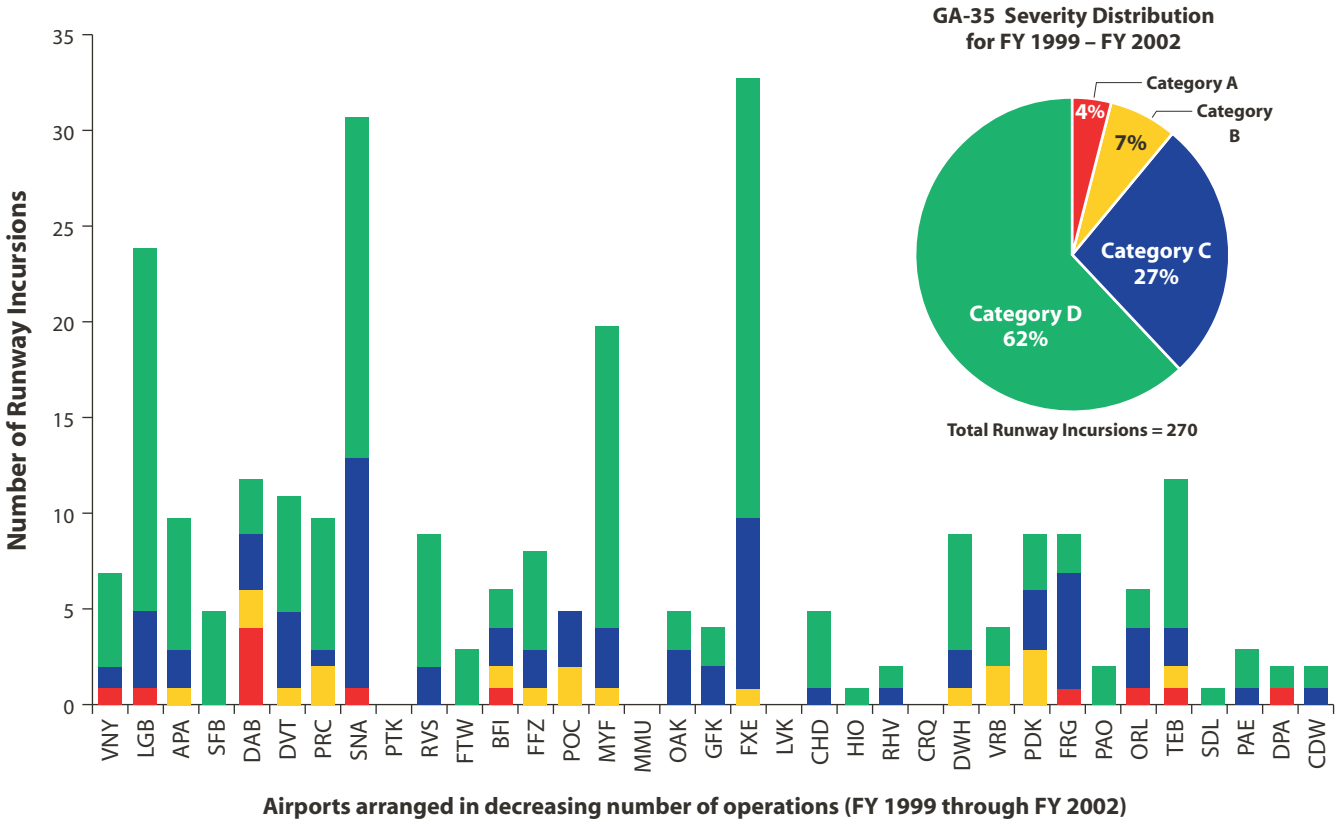
***Figure 16*** presents the runway incursion trends for the GA-35 airports. From FY 2001 to FY 2002, the total number of airport operations remained relatively stable. The number and rate of runway incursions showed small decreases in FY 2002 compared to FY 2001.

The four-year trend for the GA-35 airports shows that the number and rate of runway incursions consistently increased from FY 1999 through FY 2001, when they reached their peak. However, traffic volume at the GA-35 airports since FY 2001 has been down by nearly one million operations as compared to FY 1999 traffic levels, and the runway incursion rate showed a slight decrease in FY 2002 to 7.1 incursions per million operations.

***Figure 17*** lists the GA-35 airports in descending order of the total number of operations from FY 1999 through FY 2002, and shows the severity distributions at each airport for this four-year period. Compared with the national trend for this four-year period, these 35 general aviation airports reported a similar distribution of runway incursion severity—the majority of runway incursions were Category C and D events. During this period, 4 percent (12 events) of the runway incursions at these airports were Category A events and 7 percent (19 events) were Category B events. The majority (87 percent) of these Category A and B events involved two general aviation aircraft.

**The number and rate of runway incursions at the GA-35 airports consistently increased from FY 1999 through FY 2001, when they reached their peak.**

**Figure 17:**
*Number and Severity of Runway Incursions at the GA-35 Airports from FY 1999 through FY 2002*



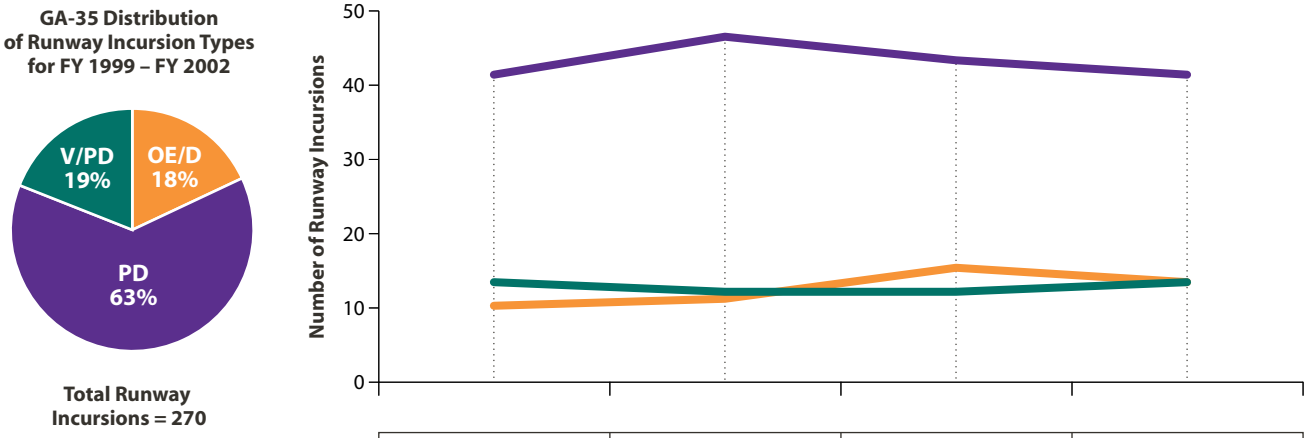

*Appendix C.2 provides a list of the names of the GA-35 airports.*

**From FY 1999 through FY 2002, 11 percent of the runway incursions at the GA-35 airports were Category A and B events.**

From FY 1999 through FY 2002, four of the GA-35 airports reported zero runway incursions. Only one of the GA-35 airports—Daytona Beach International (DAB) — reported a combined total of more than five Category A and B runway incursions over the four fiscal years. The aircraft operations at DAB consisted of 98 percent general aviation aircraft. The four Category A and two Category B incursions at DAB involved two general aviation aircraft and occurred in the vicinity of a runway intersection. None of the Category A and B events at DAB occurred in FY 2002.

DAB has taken proactive measures to mitigate the severity of runway incursions such as the installation of runway guard lights along with the repainting of all runways/taxiways with 12-inch wide runway holding position markings. In addition, the flight schools at DAB are placing increased emphasis on surface operations.

**Figure 18:**
*Number and Rate of Runway Incursion Types at the GA-35 Airports from FY 1999 through FY 2002*




| | FY 1999 | | FY 2000 | | FY 2001 | | FY 2002 | |
|---|---|---|---|---|---|---|---|---|
| | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops | Number | Rate per Million Ops |
| Pilot Deviations | 41 | 4.0 | 46 | 4.5 | 43 | 4.6 | 41 | 4.3 |
| Vehicle/Pedestrian Deviations | 13 | 1.3 | 12 | 1.2 | 12 | 1.3 | 13 | 1.4 |
| Operational Errors/Deviations | 10 | 1.0 | 11 | 1.1 | 15 | 1.6 | 13 | 1.4 |

***Figure 18*** shows the number and rate of runway incursion types at the GA-35 airports from FY 1999 through FY 2002. From FY 2001 to FY 2002, there was no notable change in the number and rate of each runway incursion type—operational errors/deviations, pilot deviations, and vehicle/pedestrian deviations.

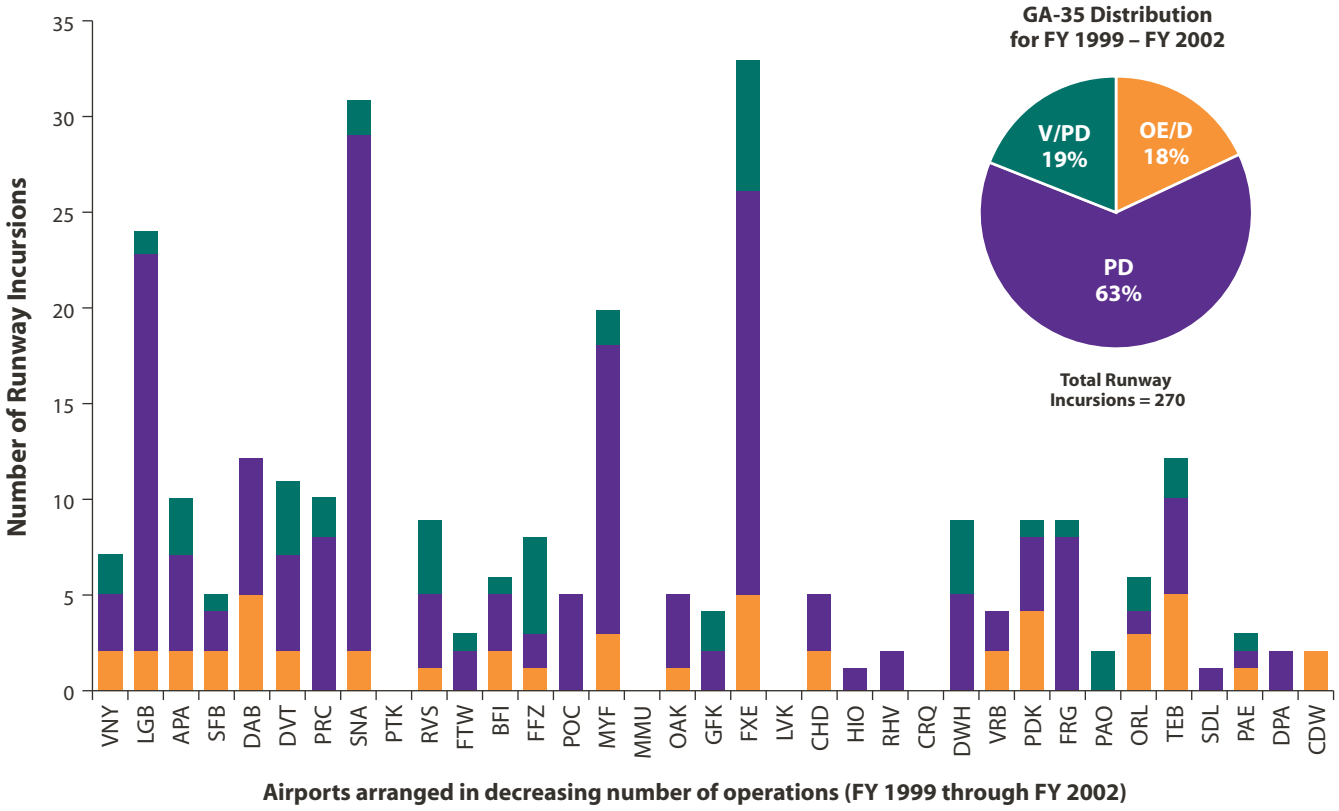
The rate of vehicle/pedestrian deviations remained stable across the four-year period whereas the rate of operational errors increased from FY 1999 to FY 2001, where it reached its peak.

From FY 1999 to FY 2001, the rate of pilot deviations increased to a high of 4.6 pilot deviations per million operations. The average rate of pilot deviations at the GA-35 airports was consistently higher than the average pilot deviation rate for the OEP-35 airports and the national pilot deviation rate. Specifically, the four-year average rate for the GA-35 airports was 4.3 pilot deviations per million operations, compared to average respective rates of 3.1 and 3.2 pilot deviations per million operations at the OEP-35 airports and airports nationwide.

The majority of runway incursions (70 percent) at the GA-35 airports involved two general aviation aircraft, which is not surprising as the traffic mix at most of these airports is over 90 percent general aviation operations.

**The average *rate* for pilot deviations at the GA-35 airports has been consistently higher than the national pilot deviation rate and the rate of pilot deviations at the OEP-35 airports.**

**Figure 19:**
*Types of Runway Incursions at the GA-35 Airports from FY 1999 through FY 2002*




*Appendix C.2 provides a list of the names of the GA-35 airports.*

**During this four-year period, there was a similar distribution of runway incursion types at the GA-35 and OEP-35 airports.**

***Figure 19*** presents the distribution of runway incursion types for the GA-35 airports from FY 1999 through FY 2002. The GA-35 airports accounted for 18 percent (270 events) of the total number of runway incursions during this four-year period—which is in proportion to the amount of traffic handled by these airports (15 percent of all operations).

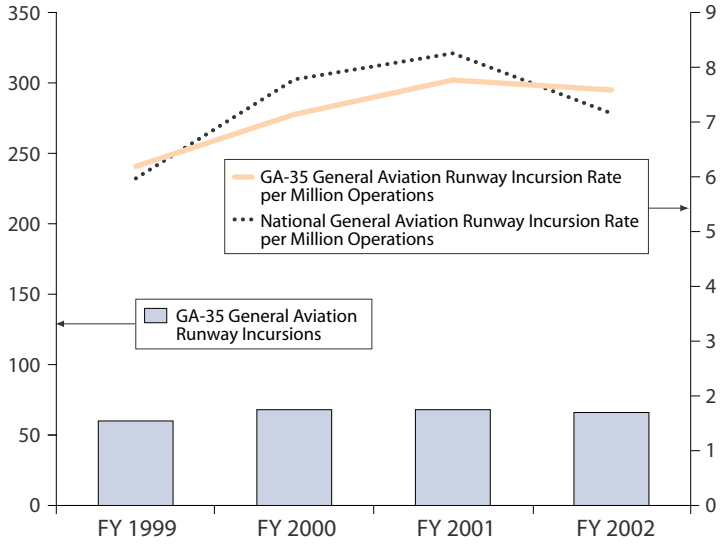
Compared with the types of runway incursions at the OEP-35 airports and airports nationwide, the GA-35 airports reported a similar distribution of runway incursion types—the majority of runway incursions were pilot deviations. Eighteen percent (49 events) of the runway incursions at the GA-35 airports were operational errors/deviations, 63 percent (171 events) were pilot deviations, and 19 percent (50 events) were vehicle/pedestrian deviations.

From FY 1999 through FY 2002, four of these airports—LGB, SNA, MYF, and FXE—reported 20 or more runway incursions. These airports also accounted for 31 percent of the pilot deviations that occurred at the GA-35 airports.

From FY 1999 to FY 2002, the GA-35 airports handled an average of approximately 9 million general aviation aircraft operations per year. As these airports represent the 35 busiest in terms of general aviation operations, the FAA

examined runway incursion trends at these airports from the vantage point of the general aviation operators. Specifically, the general aviation runway incursion rate—the rate of incursions that involved at least one general aviation operation—for the GA-35 airports was analyzed to identify trends across the four-year period. ***Figure 20*** presents the general aviation runway incursion rate for the GA-35 airports from FY 1999 through FY 2002.

**Figure 20:**
*Rates of General Aviation Runway Incursions at the GA-35 Airports for FY 1999 through FY 2002*




| | | | | |
|---|---|---|---|---|
| GA-35 General Aviation Runway Incursions | 60 | 68 | 68 | 66 |
| GA-35 General Aviation Runway Incursion Rate per Million Operations | 6.2 | 7.1 | 7.8 | 7.6 |
| National General Aviation Runway Incursion Rate per Million Operations | 6.0 | 7.8 | 8.3 | 7.2 |
| GA-35 Total Number of General Aviation Operations | 9,702,733 | 9,554,392 | 8,766,247 | 8,702,776 |

From FY 2001 to FY 2002, the general aviation runway incursion rate at the GA-35 airports stabilized. In FY 2002, the GA-35 general aviation runway incursion rate was 7.6 incursions per million general aviation operations—or an average of one general aviation incursion every 5.5 days at one of the GA-35 airports. From FY 1999 through FY 2001, the general aviation runway incursion rate at the GA-35 airports steadily rose from 6.2 in FY 1999 to a high of 7.8 in FY 2001. Meanwhile, beginning in FY 2001, the volume of general aviation traffic at the GA-35 airports dropped by nearly one million operations compared to the four-year high in FY 1999. This decrease in general aviation traffic volume at the GA-35 airports did not produce a corresponding decrease in the general aviation runway incursion rate.

**From FY 1999 to FY 2001, the general aviation runway incursion rate at the GA-35 airports continued to increase from year to year, but stabilized from FY 2001 to FY 2002.**

The four-year trends for the general aviation runway incursion rate at the GA-35 airports and at the national level were similar. This apparent correspondence suggests that runway safety strategies implemented at the GA-35 airports can

influence the national general aviation runway incursion rate, which may be misleading. The GA-35 airports accounted for only 24 percent of all general aviation operations at U.S. towered airports in contrast to the OEP-35 airports, which managed the majority of all commercial operations nationwide. Furthermore, the GA-35 airports accounted for only 23 percent of all runway incursions nationwide. Four airports *not included* in the GA-35—VGT, CCR, MRI, and FCM—reported between 14 and 34 runway incursions for the four-year period. Given the variety and dispersion of general aviation operations at airports across the country, the impact of safety improvements at the GA-35 airports will not necessarily be reflected in national general aviation runway incursion trends.

## Surface Incident Trends

**The analysis of the broader set of surface incident data expands the safety analysis, as similar error mechanisms may be associated with surface incidents and runway incursions.**

The analysis of runway incursion data is essential to understand the consequential errors or breakdowns that have occurred and develop runway incursion prevention approaches. The analysis of the broader set of surface incident data expands the safety analysis, as similar error mechanisms may also be associated with these events. For example, an airfield maintenance vehicle mistakenly crossing a runway without permission with no aircraft present is as noteworthy as the same vehicle making an unauthorized runway crossing with an aircraft present. Both events represent runway safety vulnerabilities and offer additional insights for risk management.

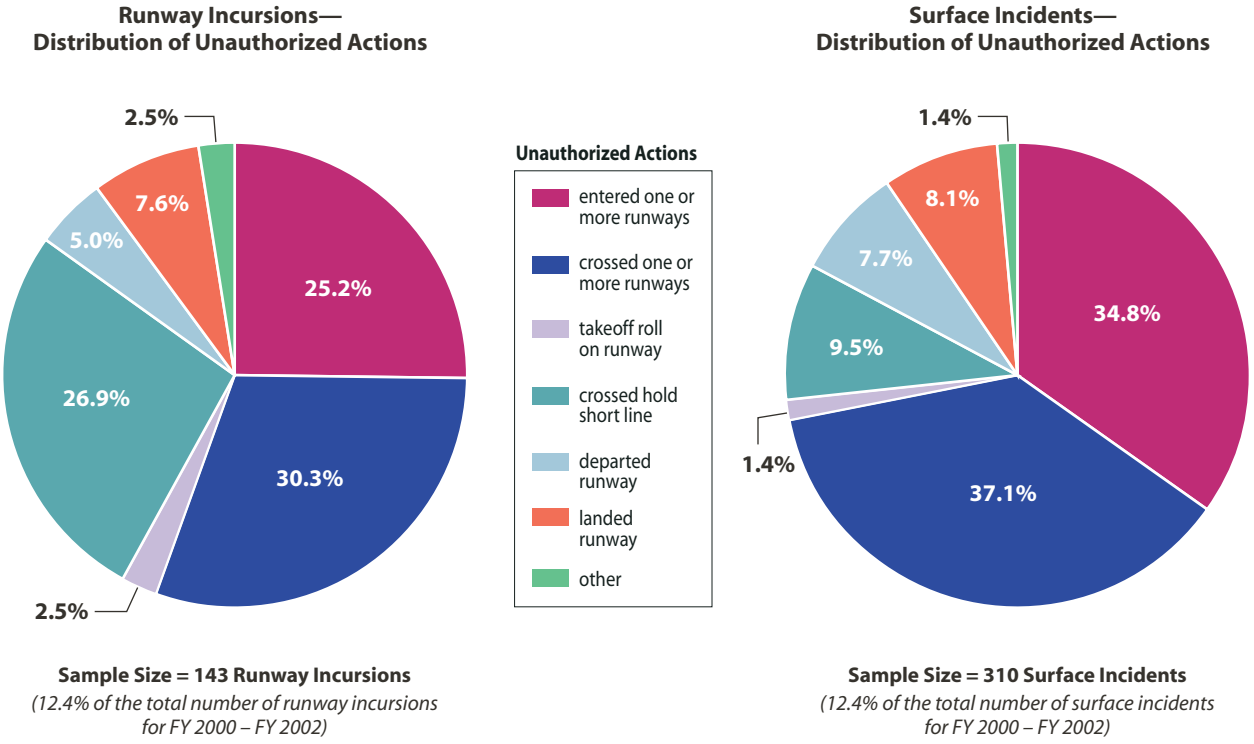
Given the relatively low base rate of runway incursions, it is difficult to derive enough information from these events to reliably identify factors that affect runway incursion potential. To increase the sample size, surface incidents (non-runway incursions) were also examined as many of these events occur in the runway environment. Because the main difference between many surface incidents and runway incursions is merely the absence of another aircraft, vehicle, or object, these events may contain similar elements that are also common to runway incursions.

The FAA conducted an initial analysis of a random sample of runway incursions and surface incidents. Appendix D.1 of this report includes a description of this sample. The preliminary analysis confirmed that similar unauthorized actions that occurred on or near a runway were represented in both runway incursions and surface incidents.

***Figure 21*** identifies the unauthorized actions that occurred on or near the runway and, in the case of runway incursions (left pie chart), resulted in a collision hazard or a loss of separation. This figure also shows that the unauthorized actions represented in both runway incursions and surface incidents are, in fact, the same errors occurring in similar proportions. The only difference in many

cases was the consequence or outcome. Appendix D.2 provides a summary of the unauthorized actions that are included in each category presented in Figure 21.

**Figure 21:**
*Distribution of Unauthorized Actions for a Random Sample of Runway Incursions and Surface Incidents*




**Sample Size = 143 Runway Incursions**
*(12.4% of the total number of runway incursions for FY 2000 – FY 2002)*

**Sample Size = 310 Surface Incidents**
*(12.4% of the total number of surface incidents for FY 2000 – FY 2002)*

The main difference identified in the unauthorized actions represented in runway incursions compared to actions represented in surface incidents is the proportion of hold short line (runway holding position marking) crossings. Approximately 27 percent of runway incursions that occurred on or near a runway involved an unauthorized crossing of a hold short line whereas only 9.5 percent of surface incidents that occurred on or near a runway involved the same unauthorized action.

The identification of the individual errors that comprise runway incursions and surface incidents is a first step toward understanding the causes of these incidents. However, surface incidents need to be examined further to see if causal factors can be determined, and if these causal factors are contributors to runway incursions as well. This information is not only important for runway safety management, but also for reducing overall airport surface safety risks.

**Preliminary analyses indicate that the unauthorized actions represented in both runway incursions and surface incidents are, in fact, the same errors. The only difference in many cases was the consequence or outcome.**

## SUMMARY AND CONCLUSIONS

The FAA Office of Runway Safety completed an analysis of the reported runway incursions from FY 1999 through FY 2002. National trends were investigated with respect to the frequency, severity, and types of runway incursions that occurred during the four-year period. Different classes of aircraft operations were analyzed to better understand their representation in runway incursions. Trends at the OEP-35 airports were investigated to understand the potential influence of airport capacity and efficiency improvements on surface safety. The 35 busiest airports for general aviation operations were also explored to provide a complementary perspective to the predominantly commercial aircraft operations at the OEP-35. To examine common errors and potential risks for more proactive runway safety management, this year's analysis also included an initial review of a sample of surface incidents that were not runway incursions.

### National Trends

From FY 1999 through FY 2002, the number and rate of runway incursions did not show a consistent trend, and the variations cannot be explained solely by annual fluctuations in traffic volume. In particular, large increases in traffic volume did not always correspond to increases in the number of runway incursions. Similarly, large decreases in traffic volume did not necessarily lead to decreases in the number of runway incursions. These variations suggest that airport-specific factors such as infrastructure, environment, procedures, and operations interact with traffic volume to affect the opportunities for runway incursions. More work is needed to understand the interactions of traffic volume, airport-specific factors, and runway incursions. For example, high-traffic volume, complex and high-frequency communications, runway crossings, and traffic mix at the local level may influence the potential risk of runway incursions.

For the four-year period, the rates for Category A, B, and C runway incursions reached their lowest levels in FY 2002. The downward trend for Category A and B rates depicts a positive influence in mitigating the severity of runway incursions. However, the continued rise in the rate of Category D runway incursions and the lack of a downward trend in the overall runway incursion rate for these four years suggest that more understanding is needed regarding the relationships between variables that contribute to risk in surface operations.

The identification of a runway incursion as an operational error/deviation, a pilot deviation, or a vehicle/pedestrian deviation is not an identification of the cause of a runway incursion. These identifications typically refer to the last event in the chain of pilot, controller, and vehicle driver actions that led up to a runway incursion and are used as an additional level of detail in understanding runway incursion trends. For the four-year period, 58 percent of runway incursions were identified as pilot deviations, and the percentage of events attributed

to operational errors/deviations and vehicle/pedestrian deviations was nearly equivalent. In FY 2002, pilot deviations occurred at approximately three times the rate of operational errors/deviations and vehicle/pedestrian deviations. The number of Category D pilot deviations steadily increased during the four-year period whereas the number of Category A and B pilot deviations showed signs of a downward trend. Of the ten Category A events in FY 2002, two events were operational errors/deviations, six events were pilot deviations, and two events were vehicle/pedestrian deviations. The static distribution of the error types over the four-year period is a finding of interest and suggests that a better understanding of the potential risk factors is essential to improving runway safety.

From FY 1999 through FY 2002, general aviation operations represented 58 percent of all aircraft operations whereas commercial operations represented 38 percent of the aircraft operations. As the majority (77 percent) of runway incursions involved two aircraft, trends for incursions involving different pairs of aircraft operations were examined. Most often, runway incursions involved two general aviation aircraft during the four-year period. The rate of GA/GA incursions per million general aviation operations decreased from 4.6 in FY 2001 to 3.9 in FY 2002—meaning that a GA/GA incursion happened approximately once every two days. The rate of COMM/COMM incursions per million commercial operations decreased from 2.6 in FY 2001 to 2.0 in FY 2002—which equates to an average of one COMM/COMM runway incursion every seven days. In FY 2002, there were zero Category A runway incursions involving two commercial aircraft and six Category A incursions involving two general aviation aircraft.

An initial analysis of a random sample of runway incursions and surface incidents confirmed that similar unauthorized actions that occurred on or near a runway were represented in both runway incursions and surface incidents. These initial findings suggest that additional analysis of surface incidents may be beneficial for further progress in runway safety risk management.

## Airport Trends

Airport trends were investigated to begin to identify 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—the OEP-35 airports—and have a high level of traffic volume. For a complementary view, runway incursion trends were analyzed for the airports that handled the largest volume of general aviation operations—the GA-35 airports.

FY 2002 was the first year that the OEP-35 runway incursion rate was below the national runway incursion rate. The rate of incursions at the OEP-35 airports decreased from 6.6 runway incursions per million operations in FY 2001 to 4.9 incursions per million operations in FY 2002. In comparison, the national runway incursion rate for FY 2002 was 5.2 incursions per million operations.

The distribution of runway incursion severity at the OEP-35 airports was different from the nationwide severity distribution. The OEP-35 airports had a higher proportion of Category A and B events compared to the national distribution (see **Figures 4** and **12**). However, the majority of runway incursions at the OEP-35 airports were still Category C and D events. During the four-year period, the six busiest airports—ORD, ATL, DFW, LAX, PHX, and DTW—reported 51 Category A and B events with 91 percent of these incursions involving a jet transport aircraft. The involvement of jet transports is not surprising considering that most of the OEP-35 airports handled a mix of traffic that comprised over 80 percent commercial operations. In fact, the majority of runway incursions at the OEP-35 airports involved at least one commercial aircraft operation.

Although there was a similar distribution of types of runway incursions at the OEP-35 airports compared with the national trend—with the majority of incursions attributed to pilot deviations—the change in the number of operational errors/deviations was notably different (see **Figures 7** and **13**). The national rate of operational errors/deviations over the four-year period was relatively stable. In contrast, the number and rate of operational errors/deviations at the OEP-35 airports decreased by approximately 68 percent in FY 2002.

The four-year trends for the GA-35 airports showed that the number and rate of runway incursions consistently increased from FY 1999 through FY 2001 when they reached their peak. The change in traffic volume at the GA-35 airports during this four-year period did not have a predictable effect on the number or rate of incursions. The rate of incursions at the GA-35 airports reached its lowest point of the four-year period in FY 1999—6.2 incursions per million operations. In FY 2001, the GA-35 runway incursion rate reached its peak of 7.4 incursions per million operations, with nearly one million fewer aircraft operations that year than in FY 1999. In FY 2002, the GA-35 runway incursion rate decreased to 7.1 incursions per million operations, with little change in traffic volume.

The runway incursion severity distribution at the GA-35 airports was similar to the national trend—4 percent of the runway incursions at the GA-35 airports were Category A events whereas 7 percent were Category B events (see **Figures 4** and **17**). For this four-year period, the majority of these Category A and B incursions involved two general aviation aircraft, and the majority (70 percent) of all runway incursions at the GA-35 airports also involved two general aviation aircraft. This finding is not surprising as the traffic mix at most of these airports is over 90 percent general aviation operations.

The types of runway incursions most often reported at the GA-35 airports were pilot deviations—63 percent. The average rate of pilot deviations at the GA-35 airports was consistently higher than the national rate of pilot deviations (see **Figures 7** and **18**). Specifically, the four-year average rate for the GA-35 airports was 4.3 pilot deviations per million operations, compared to an average of 3.2 pilot deviations per million operations for all airports nationwide.

Additional analyses are required to identify the reasons for the differences in these national and airport trends. The FAA is considering different approaches for analyzing airport-specific factors that may increase opportunities for, or provide defenses against, runway incursions. The intent is to identify latent risks, assess the potential effectiveness of alternative runway safety projects, and implement solutions tailored to airport-specific needs.

## RUNWAY SAFETY PROGRESS

The FAA Office of Runway Safety has continued to make progress in executing the objectives and actions described in the FAA Runway Safety Blueprint 2002-2004. Working in concert with other FAA offices and the aviation community, the Office of Runway Safety has focused on specific activities that are considered relevant to runway incursion prevention. A summary of some of this work is provided in the following paragraphs.

### Air Traffic Control Memory Aids and Training

Individual air traffic control facilities often develop local procedures or devices to help controllers perform their tasks. Memory aids are commonly used to help tower controllers remember information such as closed runways, aircraft in position, or vehicles on the runway. A memory aid is usually a simple device (like a brightly colored warning label placed over the wind speed indicator) or a procedure (such as "tilting" a strip in the flight strip bay) that helps a controller maintain an awareness of the status of an aircraft or runway. The memory aids vary greatly from one facility to another; however, some procedures are common across the system, like tilting a strip to indicate a specific status such as an aircraft that has been taxied-into-position-and-hold (TIPH).

To tap this reservoir of information, a national survey was distributed to each tower air traffic controller and facility manager regarding the use of memory aids. Survey responses will be coded into a database so that information can be shared across tower facilities to better understand the utility and effectiveness of the memory aids. Air traffic controllers can find useful memory aids through a wide variety of search options to determine if any particular memory aid might be useful at their facility. In addition to the memory aids database, a computer-based instruction course is being developed that teaches controllers to use their memory resources more effectively.

### Airport Surface Markings

As part of the on-going efforts to manage the risk of potential surface incidents, the FAA's Office of Runway Safety and the Office of Airport Safety and Standards, in conjunction with industry, have been examining ways to improve situational awareness of individuals operating on the airport surface. With the help of human factors specialists, general aviation pilots, air transport pilots, and aviation safety experts, the FAA has initiated studies focused on the enhancement of markings and signs on the airfield. Initial research has centered on the potential modification of runway holding position markings through improved color schemes, line extensions onto taxiway shoulders, and additional signs to highlight runway holding position markings. As a result, the FAA will be conducting an operational field demonstration to validate the recommendations.

## International Outreach

The FAA Office of Runway Safety continues an active dialogue with international aviation authorities regarding runway safety. The FAA plans to support the call for standardized runway safety information with its international service partners such as the International Civil Aviation Organization (ICAO). Only through open, candid dialogue and sharing of ideas will the challenge of maintaining safe runway environments be successfully addressed worldwide.

The FAA Runway Safety Report provides an analysis of historical runway incursion data at U.S. towered airports from FY 1999 through FY 2002. While this analysis is useful for understanding and responding to events and outcomes that have already occurred, these data are of limited use for anticipating where and when the next runway incursion will happen. In FY 2002, on average, there was one runway incursion among the approximately 180,000 takeoffs and landings per day that occurred among over 480 towered airports across the United States. Therefore, to promote *proactive risk management and a safety culture*, the data available to runway safety stakeholders must be expanded to include additional detail regarding variables that contribute to risk in surface operations, which may improve risk management by providing insight into recurring errors and latent risk factors.

# FAA Runway Safety Report

Runway Incursion Trends at Towered Airports in the United States
FY 1999 – FY 2002

## Appendices

# 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 propagation 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 Learjet LR55 or Cessna Citation C550.

***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 Operation*** – Any aircraft operated by the United States military.

***Non-Runway Incursion*** – A surface incident that does not meet the criteria for a runway incursion. These events involve aircraft, vehicles, pedestrians, or objects on the runway or within the airport movement area without permission. There is no collision hazard or loss of separation during these events.

***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 obstacles (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 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

| | |
|---|---|
| **AMASS** | Airport Movement Area Safety System |
| **ASDE-X** | Airport Surface Detection Equipment - Model X |
| **ATC** | Air Traffic Controller |
| **COMM** | Commercial Operations |
| **DOT** | Department of Transportation |
| **FAA** | Federal Aviation Administration |
| **FY** | Fiscal Year |
| **GA** | General Aviation Operations |
| **GPRA** | Government Performance and Results Act |
| **ICAO** | International Civil Aviation Organization |
| **MIL** | Military Operations |
| **NAS** | National Airspace System |
| **OEP** | Operational Evolution Plan |
| **TIPH** | Taxi-Into-Position-and-Hold |

# APPENDIX B. RUNWAY INCURSION SEVERITY

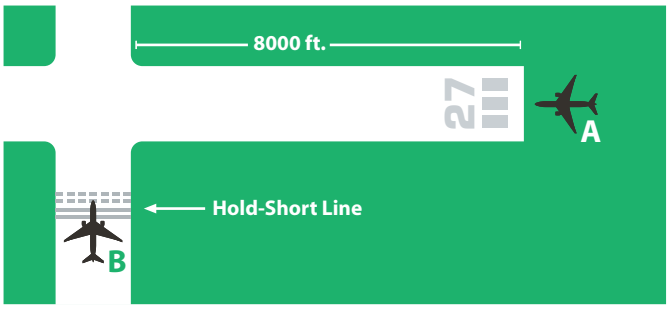
## 1. History of Runway Incursion Severity

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

This incident meets the definition of a runway incursion, but there is little or no chance of collision.



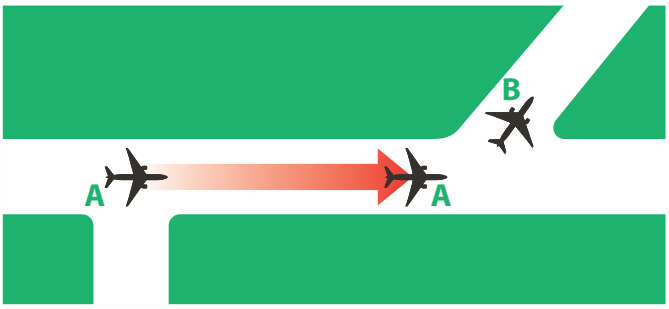

Aircraft A is on approach to Runway 27, an 8,000-foot runway. Aircraft B is taxiing to a parking area on the north side of the airport and has been instructed by air traffic control to "hold short of Runway 27" in anticipation of the arrival of Aircraft A. When Aircraft A is on a quarter mile final approach, 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.

### CASE 2

This is a severe situation where the margin of safety is so low that a collision is barely avoided.




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 Events

Data for the three unclassified runway incursions (FY 1999 – FY 2002)

| Airport | Airport ID | Year | Runway Incursion Type | Aircraft Operations Pair |
|---|---|---|---|---|
| Monterey Peninsula Airport, Monterey | MRY | 1999 | OE | GA/JT |
| Midway Airport, Chicago | MDW | 1999 | OE | JT/GA |
| Pittsburgh International Airport, Pittsburgh | PIT | 2001 | OE | JT/GA |

Three of the 1,480 runway incursions did not contain enough information to support a reliable categorization of severity. These events are identified in this table for completeness.

# APPENDIX C. AIRPORT INFORMATION

## 1. OEP-35 Airports

| Airport Code | Airport Name, City |
|---|---|
| **ATL** | Hartsfield 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 Airport - 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 |

## 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 AFB, Clinton | X | |
| **ANC** | Anchorage - Ted Stevens International Airport, Anchorage | X | |
| **ATL** | Hartsfield 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 Liberty 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 Airport - 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, Tampa | | X |

# APPENDIX D. RUNWAY INCURSION AND SURFACE INCIDENT SAMPLES

## 1. General

The FAA extracted a random sample of 143 runway incursions from the 1,151 runway incursions that occurred from FY 2000 through FY 2002. The sample represents 12.4 percent of the total number of runway incursions that occurred during the three fiscal years. In addition, the random sample included 310 surface incidents from the 2,494 surface incidents that occurred from FY 2000 through FY 2002. The sample represents 12.4 percent of the total number of surface incidents that occurred during the three fiscal years. The analysis did not include FY 1999 data because of the lack of specific information pertaining to the surface incidents during that year.

## 2. Examples of Actions Carried Out Without Authorization from an Air Traffic Controller

| Unauthorized Actions | | | | |
|---|---|---|---|---|
| **Entered One or More Runways** | **Crossed One or More Runways** | **Departed Runway** | **Landed Runway** | **Other Runway Incidents** |
| one runway | one runway | active runway | active runway | missed turn on runway |
| more than one runway | more than one runway | wrong runway | wrong runway | TIPH on runway |
| wrong runway | wrong runway | opposite end of runway | closed runway | TIPH on opposite end of runway |
| closed runway | opposite end of runway | | closed portion of runway | touch and go on runway |
| opposite end of runway | | | wrong airport | |

The frequency of the events listed in this table can be found in Figure 21.

# APPENDIX E. RUNWAY INCURSION/SURFACE INCIDENT DATA BY AIRPORT (FY 1999–FY 2002)

**ALABAMA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Anniston Metropolitan Airport, Anniston (ANB) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Birmingham International Airport, Birmingham (BHM) | ASO | 1999 | | | | 1 | 1 | | 2 | 1.28 | 6 |
| | | 2000 | | 1 | | | | | 1 | 0.65 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 2 | | 2 | 1.37 | 0 |
| Huntsville International Airport - Carl T. Jones Field, Huntsville (HSV) | ASO | 1999 | | | | | | | 0 | 0.00 | 5 |
| | | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Mobile Downtown Airport, Mobile (BFM) | ASO | 1999 | | | 1 | | | | 1 | 1.10 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Montgomery Regional Airport, Montgomery (MGM) | ASO | 1999 | | | | | 1 | | 1 | 1.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.01 | 0 |
| | | 2002 | | | | 1 | | | 1 | 1.18 | 0 |
| Tuscaloosa Municipal Airport, Tuscaloosa (TCL) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 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** |
| Allen AAF, Delta Junction/Fort Greeley (BIG) | AAL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Anchorage - Ted Stevens International Airport, Anchorage (ANC) | AAL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 1 | 1 | | 2 | 0.63 | 9 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | | | | 2 | 5 | | 7 | 2.30 | 2 |
| Bethel Airport, Bethel (BET) | AAL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | | | | | | | 0 | 0.00 | 4 |
| Fairbanks International Airport, Fairbanks (FAI) | AAL | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | 2 | 1 | | 3 | 2.21 | 7 |
| | | 2001 | | | | | 1 | | 1 | 0.73 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 9 |

**ALASKA**– continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Juneau International Airport, Juneau (JNU) | AAL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.69 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.77 | 1 |
| Kenai Municipal Airport, Kenai (ENA) | AAL | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | | | 1 | 1.72 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| King Salmon Airport, King Salmon (AKN) | AAL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |
| Kodiak Airport, Kodiak (ADQ) | AAL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 1 | | 1 | 3.19 | 4 |
| Lake Hood Sea Plane Base, Anchorage (LHD) | AAL | 1999 | | | | | | | 0 | 0.00 | 4 |
| | | 2000 | | | | | 1 | | 1 | 1.10 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 6 |
| | | 2002 | | | | | 1 | | 1 | 1.44 | 10 |
| Merrill Field, Anchorage (MRI) | AAL | 1999 | | | | | 1 | | 1 | 0.48 | 23 |
| | | 2000 | | | | 1 | 5 | | 6 | 3.18 | 21 |
| | | 2001 | | | 1 | 3 | 2 | | 6 | 3.19 | 13 |
| | | 2002 | | | 1 | 1 | 1 | | 3 | 1.72 | 19 |

**AMERICAN SAMOA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Pago Pago International Airport, Pago Pago (PPG) | AWP | 1999 | | | | | | | 0 | 0.00 | |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 8.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**ARIZONA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Chandler Municipal Airport, Chandler (CHD) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.41 | 4 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.83 | 6 |
| | | 2002 | | | | | 2 | | 2 | 0.89 | 2 |
| Deer Valley Municipal Airport, Phoenix (DVT) | AWP | 1999 | | | 1 | | 3 | | 4 | 1.40 | 3 |
| | | 2000 | | | | 2 | | | 2 | 0.57 | 4 |
| | | 2001 | | | | | 2 | | 2 | 0.59 | 4 |
| | | 2002 | | | | 2 | 1 | | 3 | 0.76 | 3 |
| Flagstaff Pulliam Field, Flagstaff (FLG) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**ARIZONA** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Gila Bend AF Aux, Gila Bend (GBN) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Glendale Municipal Airport, Glendale (GEU) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.90 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Laughlin - Bullhead International Airport, Bullhead City (IFP) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | 1 | 1 | 1 | 2 | | 5 | 9.65 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Love Airport, Prescott (PRC) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | 1 | | 1 | | 2 | 0.61 | 5 |
| | | 2001 | | | 1 | 1 | 4 | | 6 | 1.89 | 1 |
| | | 2002 | | | | | 2 | | 2 | 0.59 | 3 |
| Mesa - Falcon Field, Mesa (FFZ) | AWP | 1999 | | | | 1 | 1 | | 2 | 0.79 | 3 |
| | | 2000 | | | | 1 | | | 1 | 0.36 | 5 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.78 | 2 |
| | | 2002 | | | | | 3 | | 3 | 1.10 | 3 |
| Phoenix - Sky Harbor International Airport, Phoenix (PHX) | AWP | 1999 | | 2 | | 3 | | | 5 | 0.90 | 8 |
| | | 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 |
| Phoenix Goodyear Airport, Phoenix (GYR) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.49 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Scottsdale Airport, Scottsdale (SDL) | AWP | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.53 | 0 |
| Tucson International Airport, Tucson (TUS) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | 1 | | 1 | | 2 | 0.77 | 2 |
| | | 2001 | | | | 2 | | | 2 | 0.78 | 4 |
| | | 2002 | | | | 1 | 2 | | 3 | 1.13 | 3 |
| Williams Gateway Airport, Phoenix (IWA) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.58 | 0 |
| | | 2001 | | | | 1 | 2 | | 3 | 1.87 | 2 |
| | | 2002 | | | | | 2 | | 2 | 1.16 | 4 |

**ARKANSAS**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Fort Smith Regional Airport, Fort Smith (FSM) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Jonesboro Municipal Airport, Jonesboro (JBR) | ASW | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Little Rock - Adams Field, Little Rock (LIT) | ASW | 1999 | | | | | 1 | | 1 | 0.56 | 2 |
| | | 2000 | | | | | 1 | | 1 | 0.55 | 1 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.15 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Northwest Arkansas Regional Airport, Fayetteville (XNA) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**CALIFORNIA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Brackett Field, La Verne (POC) | AWP | 1999 | | | | 1 | | | 1 | 0.41 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | | 1 | | | | 1 | 0.43 | 6 |
| | | 2002 | | | 1 | 2 | | | 3 | 1.20 | 3 |
| Brown Field Municipal Airport, San Diego (SDM) | AWP | 1999 | | | | 1 | | | 1 | 1.08 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Burbank - Glendale - Pasadena Airport, Burbank (BUR) | AWP | 1999 | | | | 2 | 1 | | 3 | 1.68 | 1 |
| | | 2000 | | | | 1 | 1 | | 2 | 1.23 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | 1 | 1 | | 2 | 1.24 | 1 |
| Camarillo Airport, Camarillo (CMA) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | 1 | | 2 | 1.07 | 13 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.12 | 9 |
| | | 2002 | | | | | 2 | | 2 | 1.01 | 14 |
| Chico Municipal Airport, Chico (CIC) | AWP | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Chino Airport, Chino (CNO) | AWP | 1999 | | | | | 1 | | 1 | 0.53 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 8 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.34 | 5 |
| | | 2002 | | 1 | | | 1 | | 2 | 1.27 | 11 |
| Concord - Buchanan Field, Concord (CCR) | AWP | 1999 | | | 1 | 1 | | | 2 | 0.89 | 2 |
| | | 2000 | | | | 2 | 1 | | 3 | 1.39 | 5 |
| | | 2001 | | | | 3 | 10 | | 13 | 8.35 | 6 |
| | | 2002 | | 1 | 1 | | 4 | | 6 | 4.22 | 1 |

**CALIFORNIA** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| El Monte Airport, El Monte (EMT) | AWP | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | 2 | | 2 | 1.23 | 4 |
| | | 2001 | | | | | 1 | | 1 | 0.57 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Fresno - Yosemite International Airport, Fresno (FAT) | AWP | 1999 | | | | | 1 | | 1 | 0.45 | 1 |
| | | 2000 | | | | | 1 | | 1 | 0.37 | 6 |
| | | 2001 | | | 1 | 2 | 3 | | 6 | 2.05 | 5 |
| | | 2002 | | | | | 4 | | 4 | 2.40 | 2 |
| Fullerton Municipal Airport, Fullerton (FUL) | AWP | 1999 | | | | | 2 | | 2 | 2.18 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.99 | 0 |
| General William J. Fox Airfield, Lancaster (WJF) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Hawthorne Municipal - Northrop Field, Hawthorne (HHR) | AWP | 1999 | | | | | 3 | | 3 | 3.43 | 0 |
| | | 2000 | | 1 | | | | | 1 | 1.26 | 5 |
| | | 2001 | | | | | 1 | | 1 | 1.30 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Hayward Executive Airport, Hayward (HWD) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.66 | 1 |
| John Wayne - Orange County Airport, Santa Ana (SNA) | AWP | 1999 | | 1 | | 2 | 3 | | 6 | 1.34 | 5 |
| | | 2000 | | | | 4 | 5 | | 9 | 2.18 | 15 |
| | | 2001 | | | | 4 | 8 | | 12 | 3.11 | 13 |
| | | 2002 | | | | 2 | 2 | | 4 | 1.06 | 7 |
| Livermore Municipal Airport, Livermore (LVK) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Long Beach - Daugherty Field, Long Beach (LGB) | AWP | 1999 | | | | 1 | 4 | | 5 | 0.99 | 10 |
| | | 2000 | | 1 | | 1 | 6 | | 8 | 1.94 | 20 |
| | | 2001 | | | | 1 | 5 | | 6 | 1.66 | 12 |
| | | 2002 | | | | 1 | 4 | | 5 | 1.42 | 5 |
| Los Angeles - Whiteman Field, Los Angeles (WHP) | AWP | 1999 | | | 1 | | | | 1 | 0.68 | 0 |
| | | 2000 | | | | 2 | | | 2 | 1.41 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.89 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Los Angeles International Airport, Los Angeles (LAX) | AWP | 1999 | | 3 | | 4 | 2 | | 9 | 1.17 | 4 |
| | | 2000 | | 2 | 4 | 4 | | | 10 | 1.28 | 16 |
| | | 2001 | | | 3 | 3 | 3 | | 9 | 1.15 | 12 |
| | | 2002 | | | 2 | 2 | 2 | | 6 | 0.94 | 10 |

**CALIFORNIA** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| McClellan - Palomar Airport, Carlsbad (CRQ) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Meadows Field, Bakersfield (BFL) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.54 | 0 |
| | | 2002 | | | 1 | | | | 1 | 0.63 | 0 |
| Metropolitan Oakland International Airport, Oakland (OAK) | AWP | 1999 | | | | 2 | | | 2 | 0.39 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | 1 | 2 | | 3 | 0.73 | 14 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Modesto City County - Harry Sham Field, Modesto (MOD) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Monterey Peninsula Airport, Monterey (MRY) | AWP | 1999 | | | | | | 1 | 1 | 0.95 | 0 |
| | | 2000 | | | 1 | | 1 | | 2 | 1.90 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Napa County Airport, Napa (APC) | AWP | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | 1 | | 1 | 0.64 | 7 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Norman Y. Mineta - San Jose International Airport, San Jose (SJC) | AWP | 1999 | | | | 1 | 2 | | 3 | 0.99 | 5 |
| | | 2000 | | | 1 | 2 | 3 | | 6 | 2.01 | 14 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.70 | 12 |
| | | 2002 | | | | | 1 | | 1 | 0.44 | 18 |
| Ontario International Airport, Ontario (ONT) | AWP | 1999 | | | | | 1 | | 1 | 0.63 | 1 |
| | | 2000 | | | | 1 | | | 1 | 0.65 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Palm Springs International Airport, Palm Springs (PSP) | AWP | 1999 | | | | 1 | 1 | | 2 | 1.96 | 1 |
| | | 2000 | | | 1 | 1 | | | 2 | 1.98 | 8 |
| | | 2001 | | | | 1 | 2 | | 3 | 3.07 | 8 |
| | | 2002 | | | | | 2 | | 2 | 1.85 | 5 |
| Palmdale Regional Airport, Palmdale (PMD) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 2.48 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Palo Alto Airport of Santa Clara County, Palo Alto (PAO) | AWP | 1999 | | | | | 1 | | 1 | 0.49 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.51 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 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** |
| Redding Municipal Airport, Redding (RDD) | AWP | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Reid-Hillview Airport of Santa Clara County, San Jose (RHV) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 0.44 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.43 | 2 |
| Riverside Municipal Airport, Riverside (RAL) | AWP | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | 1 | | | | 1 | 0.96 | 1 |
| Sacramento International Airport, Sacramento (SMF) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Salinas Municipal Airport, Salinas (SNS) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | 1 | | | | | 1 | 1.14 | 2 |
| | | 2001 | | | | 1 | | | 1 | 1.15 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| San Carlos Airport, San Carlos (SQL) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 0.60 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| San Diego - Gillespie Field, San Diego (SEE) | AWP | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 2 | | | 2 | 1.04 | 9 |
| | | 2001 | | | | 1 | | | 1 | 0.56 | 11 |
| | | 2002 | | | | | 1 | | 1 | 0.55 | 4 |
| San Diego - Montgomery Field, San Diego (MYF) | AWP | 1999 | | | | 1 | 7 | | 8 | 2.94 | 14 |
| | | 2000 | | | 1 | 1 | 5 | | 7 | 2.63 | 20 |
| | | 2001 | | | | | 3 | | 3 | 1.37 | 4 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.83 | 3 |
| San Diego International Airport - Lindbergh Field, San Diego (SAN) | AWP | 1999 | | | | | 1 | | 1 | 0.45 | 2 |
| | | 2000 | | | | | 1 | | 1 | 0.48 | 1 |
| | | 2001 | | | 1 | | 2 | | 3 | 1.41 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| San Francisco International Airport, San Francisco (SFO) | AWP | 1999 | | | 3 | 1 | | | 4 | 0.92 | 8 |
| | | 2000 | | | 1 | 1 | 4 | | 6 | 1.37 | 9 |
| | | 2001 | | | | 2 | | | 2 | 0.49 | 9 |
| | | 2002 | | | | 1 | 3 | | 4 | 1.14 | 4 |
| Santa Barbara Municipal Airport, Santa Barbara (SBA) | AWP | 1999 | | | | 1 | | | 1 | 0.60 | 4 |
| | | 2000 | | | | 2 | 4 | | 6 | 3.62 | 8 |
| | | 2001 | | | | 2 | 1 | | 3 | 1.82 | 8 |
| | | 2002 | | | 1 | | 1 | | 2 | 1.24 | 8 |

**CALIFORNIA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Santa Maria Public - Hancock Field, Santa Maria (SMX) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.60 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | 1 | | | | | 1 | 0.62 | 0 |
| Santa Monica Municipal Airport, Santa Monica (SMO) | AWP | 1999 | | | | | | | 0 | 0.00 | 4 |
| | | 2000 | | | | 1 | | | 1 | 0.52 | 6 |
| | | 2001 | | | | | 2 | | 2 | 1.28 | 5 |
| | | 2002 | | | 1 | 2 | | | 3 | 2.02 | 4 |
| Sonoma County Airport, Santa Rosa (STS) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.73 | 10 |
| | | 2001 | | | | 2 | | | 2 | 1.44 | 11 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |
| Stockton Metropolitan Airport, Stockton (SCK) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Van Nuys Airport, Van Nuys (VNY) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | 1 | | 2 | 0.38 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | 1 | | | | 4 | | 5 | 1.00 | 2 |
| Zamperini Field, Torrance (TOA) | AWP | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 1 | | | 1 | 0.54 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**COLORADO**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Aspen - Pitkin County / Sardy Field, Aspen (ASE) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | 1 | 1 | | | 2 | 4.25 | 0 |
| City of Colorado Springs Municipal Airport, Colorado Springs (COS) | ANM | 1999 | | | | | 1 | | 1 | 0.45 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Denver - Centennial Airport, Denver (APA) | ANM | 1999 | | | 1 | 1 | 2 | | 4 | 0.93 | 4 |
| | | 2000 | | | | 1 | 2 | | 3 | 0.72 | 12 |
| | | 2001 | | | | | 1 | | 1 | 0.27 | 4 |
| | | 2002 | | | | | 2 | | 2 | 0.47 | 1 |
| Denver - Jeffco Airport, Denver (BJC) | ANM | 1999 | | | | 1 | | | 1 | 0.61 | 14 |
| | | 2000 | | | 1 | | 5 | | 6 | 3.33 | 29 |
| | | 2001 | | | | | 2 | | 2 | 1.21 | 14 |
| | | 2002 | | | | 1 | 1 | | 2 | 1.10 | 5 |
| Denver International Airport, Denver (DEN) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 1 | 1 | | 2 | 0.38 | 4 |
| | | 2001 | | | | 1 | | | 1 | 0.19 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.20 | 1 |

**COLORADO** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Eagle County Regional Airport, Eagle (EGE) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 2.54 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Pueblo Memorial Airport, Pueblo (PUB) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Walker Field, Grand Junction (GJT) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**CONNECTICUT**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Bradley International Airport, Windsor Locks (BDL) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | 1 | | | | 1 | 0.57 | 2 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.17 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Danbury Municipal Airport, Danbury (DXR) | ANE | 1999 | | | 1 | | 1 | | 2 | 1.63 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 2 | | 2 | 1.80 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Groton - New London Airport, Groton (GON) | ANE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | 1 | | 2 | 2.55 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Hartford Brainard Airport, Hartford (HFD) | ANE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Igor I. Sikorsky Memorial Airport, Bridgeport (BDR) | ANE | 1999 | | | | | 1 | | 1 | 1.04 | 0 |
| | | 2000 | | | | 2 | 1 | | 3 | 3.33 | 0 |
| | | 2001 | | | | 1 | 2 | | 3 | 3.31 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Tweed - New Haven Airport, New Haven (HVN) | ANE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 1 | | | 1 | 1.67 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Waterbury - Oxford Airport, Oxford (OXC) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**DELAWARE**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| New Castle County Airport, Wilmington (ILG) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.75 | 0 |

**DISTRICT OF COLUMBIA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Ronald Reagan Washington National Airport, Washington (DCA) | AEA | 1999 | | | 1 | | | | 1 | 0.30 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | 1 | 1 | 1 | 1 | | 4 | 1.22 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**FLORIDA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Albert Whitted Airport, St. Petersburg (SPG) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 8 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 1.01 | 0 |
| Boca Raton Airport, Boca Raton (BCT) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Cecil Field, Jacksonville (VQQ) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Craig Municipal Airport, Jacksonville (CRG) | ASO | 1999 | | | | | 1 | | 1 | 0.68 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.59 | 0 |
| Daytona Beach International Airport, Daytona Beach (DAB) | ASO | 1999 | | 3 | 1 | 1 | 1 | | 6 | 1.60 | 2 |
| | | 2000 | | | | 1 | 2 | | 3 | 0.82 | 2 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.54 | 1 |
| | | 2002 | | | 1 | | | | 1 | 0.28 | 0 |
| Fort Lauderdale - Executive Airport, Fort Lauderdale (FXE) | ASO | 1999 | | | | | 5 | | 5 | 2.02 | 12 |
| | | 2000 | | | | 2 | 2 | | 4 | 1.54 | 20 |
| | | 2001 | | | 1 | 5 | 9 | | 15 | 6.07 | 20 |
| | | 2002 | | | | 2 | 7 | | 9 | 3.67 | 27 |
| Fort Lauderdale - Hollywood International Airport, Fort Lauderdale (FLL) | ASO | 1999 | | | | 1 | | | 1 | 0.36 | 1 |
| | | 2000 | 1 | | | | 3 | | 4 | 1.39 | 2 |
| | | 2001 | | 1 | 1 | | | | 2 | 0.67 | 2 |
| | | 2002 | | | 1 | 1 | | | 2 | 0.73 | 0 |
| Jacksonville International Airport, Jacksonville (JAX) | ASO | 1999 | | | | | 1 | | 1 | 0.61 | 0 |
| | | 2000 | | 1 | | | | | 1 | 0.67 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**FLORIDA** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Kendall Tamiami - Executive Airport, Miami (TMB) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.54 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Key West International Airport, Key West (EYW) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Kissimmee Municipal Airport, Orlando (ISM) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 2 | | 2 | 1.39 | 0 |
| | | 2001 | | 1 | | | | | 1 | 0.61 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.70 | 6 |
| Lakeland - Linder Regional Airport, Lakeland (LAL) | ASO | 1999 | | | 1 | | 1 | | 2 | 0.90 | 2 |
| | | 2000 | | | | 1 | 1 | | 2 | 0.99 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | 1 | | | | 2 | | 3 | 2.03 | 2 |
| Melbourne International Airport, Melbourne (MLB) | ASO | 1999 | | | | 1 | | | 1 | 0.69 | 2 |
| | | 2000 | | | 1 | | | | 1 | 0.52 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 2 | | | 2 | 1.03 | 0 |
| Miami International Airport, Miami (MIA) | ASO | 1999 | | | | 2 | | | 2 | 0.38 | 1 |
| | | 2000 | | | 1 | 2 | | | 3 | 0.58 | 2 |
| | | 2001 | | 1 | | 1 | 1 | | 3 | 0.61 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.23 | 1 |
| Naples Municipal Airport, Naples (APF) | ASO | 1999 | | | | 1 | | | 1 | 0.81 | 3 |
| | | 2000 | | | | | 1 | | 1 | 0.85 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.74 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| North Perry Airport, Hollywood (HWO) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Opa Locka Airport, Miami (OPF) | ASO | 1999 | | | 1 | | | | 1 | 0.88 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Orlando - Executive Airport, Orlando (ORL) | ASO | 1999 | | | | 2 | | | 2 | 0.90 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.96 | 1 |
| | | 2002 | | | | | 2 | | 2 | 0.97 | 3 |
| Orlando - Sanford International Airport, Orlando (SFB) | ASO | 1999 | | | | | 3 | | 3 | 0.81 | 5 |
| | | 2000 | | | | | 2 | | 2 | 0.54 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |

**FLORIDA** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Orlando International Airport, Orlando (MCO) | ASO | 1999 | | | | 1 | | | 1 | 0.28 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | 1 | | | | 1 | 0.33 | 0 |
| Page Field, Fort Myers (FMY) | ASO | 1999 | | | | | | | 0 | 0.00 | 4 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Palm Beach International Airport, West Palm Beach (PBI) | ASO | 1999 | | | | 3 | 1 | | 4 | 2.03 | 4 |
| | | 2000 | | | 1 | | 1 | | 2 | 0.96 | 3 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.90 | 1 |
| | | 2002 | | | | 1 | 3 | | 4 | 2.14 | 0 |
| Panama City - Bay County International Airport, Panama City (PFN) | ASO | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Pensacola Regional Airport, Pensacola (PNS) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.85 | 3 |
| | | 2002 | | | | | 2 | | 2 | 1.54 | 0 |
| Sarasota - Bradenton International Airport, Sarasota (SRQ) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | 1 | | | 1 | 2 | | 4 | 2.29 | 2 |
| | | 2001 | | 1 | | 1 | 1 | | 3 | 1.79 | 3 |
| | | 2002 | | | 1 | | | | 1 | 0.62 | 0 |
| Southwest Florida International Airport, Fort Myers (RSW) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Space Coast Regional Airport, Titusville (TIX) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.54 | 0 |
| St. Lucie County International Airport, Fort Pierce (FPR) | ASO | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | 1 | | | 1 | 0.59 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| St. Petersburg - Clearwater International Airport, St. Petersburg (PIE) | ASO | 1999 | | | | 1 | | | 1 | 0.45 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.47 | 3 |
| Tallahassee Regional Airport, Tallahassee (TLH) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |

**FLORIDA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Tampa International Airport, Tampa (TPA) | ASO | 1999 | | 1 | | | | | 1 | 0.37 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | 1 | | | 1 | 0.37 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Vero Beach Municipal Airport, Vero Beach (VRB) | ASO | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.45 | 0 |
| | | 2002 | | | 2 | | 1 | | 3 | 1.27 | 2 |
| Witham Field, Stuart (SUA) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.83 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |

**GEORGIA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Athens / Ben Epps Airport, Athens (AHN) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.44 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Augusta Regional Airport at Bush Field, Augusta (AGS) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Cobb County Airport - McCollum Field, Marietta (RYY) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Columbus Metropolitan Airport, Columbus (CSG) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 1.96 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Dekalb - Peachtree Airport, Atlanta (PDK) | ASO | 1999 | | | 2 | | | | 2 | 0.85 | 5 |
| | | 2000 | | | | | 1 | | 1 | 0.42 | 3 |
| | | 2001 | | | 1 | 1 | 1 | | 3 | 1.40 | 15 |
| | | 2002 | | | | 2 | 1 | | 3 | 1.36 | 6 |
| Fulton County Airport - Brown Field, Atlanta (FTY) | ASO | 1999 | | | | 1 | | | 1 | 0.88 | 1 |
| | | 2000 | | | | | 1 | | 1 | 0.85 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Gwinnett County Airport - Briscoe Field, Lawrenceville (LZU) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Hartsfield Atlanta International Airport, Atlanta (ATL) | ASO | 1999 | | | 2 | 4 | | | 6 | 0.67 | 1 |
| | | 2000 | | 1 | 1 | | | | 2 | 0.22 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.11 | 0 |
| | | 2002 | | | 1 | | 3 | | 4 | 0.45 | 2 |

**GEORGIA** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Middle Georgia Regional Airport, Macon (MCN) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Robins AFB, Warner Robins (WRB) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Savannah International Airport, Savannah (SAV) | ASO | 1999 | | | | | 1 | | 1 | 0.92 | 1 |
| | | 2000 | | | 1 | | | | 1 | 0.89 | 1 |
| | | 2001 | | | | 1 | | | 1 | 0.91 | 2 |
| | | 2002 | | 1 | 1 | | | | 2 | 1.74 | 2 |
| Southwest Georgia Regional Airport, Albany (ABY) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Valdosta Regional Airport, Valdosta (VLD) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 2 | 1 | | 3 | 5.14 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**HAWAII**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Honolulu International Airport, Honolulu (HNL) | AWP | 1999 | | | | | | | 0 | 0.00 | 4 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 4 |
| Kahului International Airport, Kahului (OGG) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.57 | 10 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Kalaeloa Airport - John Rodgers Field, Kapolei (JRF) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Kona International at Keahole, Keahole (KOA) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Lihue Airport, Lihue (LIH) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.98 | 1 |

**IDAHO**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Boise Air Terminal - Gowen Field, Boise (BOI) | ANM | 1999 | | | | 1 | 1 | | 2 | 1.11 | 3 |
| | | 2000 | | | | 1 | 1 | | 2 | 1.14 | 2 |
| | | 2001 | | | | | 3 | | 3 | 1.82 | 8 |
| | | 2002 | | | | | 1 | | 1 | 0.61 | 7 |
| Fanning Field, Idaho Falls (IDA) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | 1 | | 1 | 2.28 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Joslin Field Magic Valley Regional Airport, Twin Falls (TWF) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**ILLINOIS**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Aurora Municipal Airport, Chicago/Aurora (ARR) | AGL | 1999 | | | | | 1 | | 1 | 0.83 | 2 |
| | | 2000 | | 1 | | 1 | | | 2 | 1.49 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Central Illinois Regional Airport at Bloomington - Normal, Bloomington/Normal (BMI) | AGL | 1999 | | | | | 2 | | 2 | 3.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Decatur Airport, Decatur (DEC) | AGL | 1999 | | 1 | | | | | 1 | 1.84 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Dupage Airport, Chicago/West Chicago (DPA) | AGL | 1999 | | | | | | | 0 | 0.00 | 4 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | 1 | | | | | 1 | 0.52 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.57 | 2 |
| Greater Peoria Regional Airport, Peoria (PIA) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | 1 | | 1 | 1.12 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Greater Rockford Airport, Rockford (RFD) | AGL | 1999 | | | | | 1 | | 1 | 0.96 | 4 |
| | | 2000 | | | | 1 | 3 | | 4 | 4.21 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 1.19 | 3 |
| Merrill C. Meigs Field, Chicago (CGX) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Midway Airport, Chicago (MDW) | AGL | 1999 | | | 1 | 3 | | 1 | 5 | 1.70 | 2 |
| | | 2000 | | 1 | 2 | | 2 | | 5 | 1.66 | 5 |
| | | 2001 | | | | | 2 | | 2 | 0.71 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**ILLINOIS** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| O'Hare International Airport, Chicago (ORD) | AGL | 1999 | | 3 | 1 | | 1 | | 5 | 0.56 | 2 |
| | | 2000 | | | | 1 | 2 | | 3 | 0.33 | 4 |
| | | 2001 | | 1 | | 5 | 3 | | 9 | 0.97 | 7 |
| | | 2002 | | 1 | 1 | 3 | | | 5 | 0.55 | 1 |
| Palwaukee Municipal Airport, Chicago (PWK) | AGL | 1999 | | | 1 | 1 | | | 2 | 1.18 | 1 |
| | | 2000 | | | | 1 | 1 | | 2 | 1.06 | 0 |
| | | 2001 | | 1 | | | 3 | | 4 | 2.31 | 2 |
| | | 2002 | | | 1 | | | | 1 | 0.62 | 0 |
| Quad City International Airport, Moline (MLI) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 1.45 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 1.47 | 3 |
| Springfield - Capital Airport, Springfield (SPI) | AGL | 1999 | | | | 1 | 1 | | 2 | 2.17 | 0 |
| | | 2000 | | | | 1 | 1 | | 2 | 2.56 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.39 | 1 |
| St. Louis Downtown - Parks Airport, Cahokia/St. Louis (CPS) | AGL | 1999 | | | | | | | 0 | 0.00 | 6 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| St. Louis Regional Airport, Alton/St. Louis (ALN) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 1.21 | 0 |
| University of Illinois - Willard Airport, Champaign/Urbana (CMI) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.79 | 0 |
| Waukegan Regional Airport, Waukegan (UGN) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 1.04 | 1 |
| | | 2001 | | | | 3 | | | 3 | 3.15 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |

**INDIANA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | 1 | | | | | 1 | 1.20 | 1 |
| | | 2002 | | | | 1 | | | 1 | 1.13 | 1 |
| Fort Wayne International Airport, Fort Wayne (FWA) | AGL | 1999 | | | 1 | | | | 1 | 0.85 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.78 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Indianapolis International Airport, Indianapolis (IND) | AGL | 1999 | | | | 1 | | | 1 | 0.40 | 3 |
| | | 2000 | | | | 1 | | | 1 | 0.38 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.39 | 4 |
| | | 2002 | | | | | 1 | | 1 | 0.48 | 1 |

**INDIANA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Monroe County Airport, Bloomington (BMG) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Purdue University Airport, Lafayette (LAF) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| South Bend Regional Airport, South Bend (SBN) | AGL | 1999 | | | | 1 | 2 | | 3 | 3.50 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 2 | | 2 | 2.69 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Terre Haute International Airport - Hulman Field, Terre Haute (HUF) | AGL | 1999 | | | | | 2 | | 2 | 3.75 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**IOWA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Cedar Rapids - The Eastern Iowa Airport, Cedar Rapids (CID) | ACE | 1999 | | | | | 1 | | 1 | 1.18 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.33 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Des Moines International Airport, Des Moines (DSM) | ACE | 1999 | | | | | | | 0 | 0.00 | 4 |
| | | 2000 | | | | | 1 | | 1 | 0.77 | 3 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.65 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.84 | 2 |
| Dubuque Regional Airport, Dubuque (DBQ) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 2 | | 2 | 3.78 | 4 |
| Sioux Gateway Airport, Sioux City (SUX) | ACE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 2.46 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Waterloo Municipal Airport, Waterloo (ALO) | ACE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 2.32 | 0 |

**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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Garden City Regional Airport, Garden City (GCK) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Hutchinson Municipal Airport, Hutchinson (HUT) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Johnson County Executive Airport, Olathe (OJC) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Manhattan Regional Airport, Manhattan (MHK) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.12 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| New Century AirCenter Airport, Olathe (IXD) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 2 | | 2 | 2.75 | 0 |
| Phillip Billard Municipal Airport, Topeka (TOP) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Salina Municipal Airport, Salina (SLN) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Wichita Mid-Continent Airport, Wichita (ICT) | ACE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.94 | 1 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.93 | 7 |

**KENTUCKY**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Barkley Regional Airport, Paducah (PAH) | ASO | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Blue Grass Airport, Lexington (LEX) | ASO | 1999 | | | | | 1 | | 1 | 0.96 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**KENTUCKY** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Bowman Field Airport, Louisville (LOU) | ASO | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | 1 | 1 | | 2 | 1.38 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.87 | 1 |
| | | 2002 | | | | 1 | | | 1 | 0.83 | 2 |
| Cincinnati/Northern Kentucky International Airport, Covington/Cincinnati (CVG) | ASO | 1999 | | | | 1 | | | 1 | 0.21 | 0 |
| | | 2000 | | | 1 | 3 | | | 4 | 0.82 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.26 | 0 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.42 | 1 |
| Louisville International Airport - Standiford Field, Louisville (SDF) | ASO | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | 1 | | | | 1 | 0.89 | 0 |
| | | 2001 | | | | 2 | | | 2 | 1.99 | 6 |
| | | 2002 | | | | | 1 | | 1 | 1.05 | 2 |
| Owensboro - Daviess County Regional Airport, Owensboro (OWB) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |

**LOUISIANA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Alexandria International Airport, Alexandria (AEX) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Baton Rouge Metropolitan Airport, Baton Rouge (BTR) | ASW | 1999 | | | | | 1 | | 1 | 0.67 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.88 | 1 |
| | | 2002 | | | | 1 | 2 | | 3 | 2.77 | 4 |
| Lafayette Regional Airport, Lafayette (LFT) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | 1 | | | 1 | 1.30 | 2 |
| Lake Charles Regional Airport, Lake Charles (LCH) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Lakefront Airport, New Orleans (NEW) | ASW | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | 1 | | | 1 | 0.77 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.90 | 2 |
| Louis Armstrong - New Orleans International Airport, New Orleans (MSY) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | 1 | | 2 | 1.20 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.67 | 1 |
| Monroe Regional Airport, Monroe (MLU) | ASW | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 1 | 2 | | 3 | 4.65 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |

**LOUISIANA** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Shreveport Downtown Airport, Shreveport (DTN) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.63 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Shreveport Regional Airport, Shreveport (SHV) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.44 | 1 |

**MAINE**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Bangor International Airport, Bangor (BGR) | ANE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | 1 | | 1 | 1.06 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Brunswick NAS, Brunswick (NHZ) | ANE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Portland International Jetport, Portland (PWM) | ANE | 1999 | | | | | 2 | | 2 | 1.55 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**MARYLAND**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Andrews AFB, Clinton (ADW) | AEA | 1999 | | | | | 3 | | 3 | 2.91 | 10 |
| | | 2000 | | | | 1 | | | 1 | 0.97 | 10 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Baltimore - Washington International Airport, Baltimore (BWI) | AEA | 1999 | | 1 | | | | | 1 | 0.33 | 1 |
| | | 2000 | | | | 2 | | | 2 | 0.65 | 4 |
| | | 2001 | | | | | 1 | | 1 | 0.30 | 0 |
| | | 2002 | | | 1 | | 3 | | 4 | 1.29 | 2 |
| Hagerstown Regional Airport - Richard A. Henson Field, Hagerstown (HGR) | AEA | 1999 | | | | 1 | 1 | | 2 | 3.36 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 2 | | | 2 | 3.84 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Martin State Airport, Baltimore (MTN) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Salisbury - Ocean City - Wicomico Regional Airport, Salisbury (SBY) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**MASSACHUSETTS**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Barnes Municipal Airport, Westfield (BAF) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.59 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Barnstable Municipal Airport - Boardman Polando Field, Hyannis (HYA) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Beverly Municipal Airport, Beverly (BVY) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Boston - Logan International Airport, Boston (BOS) | ANE | 1999 | | | 3 | 1 | | | 4 | 0.79 | 0 |
| | | 2000 | | | 3 | 5 | 1 | | 9 | 1.76 | 2 |
| | | 2001 | | | 1 | 3 | 2 | | 6 | 1.20 | 3 |
| | | 2002 | | | | 1 | | | 1 | 0.25 | 1 |
| Laurence G. Hanscom Field, Bedford (BED) | ANE | 1999 | | | 1 | | 2 | | 3 | 1.54 | 2 |
| | | 2000 | | | | 2 | | | 2 | 0.95 | 2 |
| | | 2001 | | | 1 | | | | 1 | 0.48 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Lawrence Municipal Airport, Lawrence (LWM) | ANE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 2 | 1 | | 3 | 3.22 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Martha's Vineyard Airport, Martha's Vineyard (MVY) | ANE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Nantucket Memorial Airport, Nantucket (ACK) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| New Bedford Regional Airport, New Bedford (EWB) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Norwood Memorial Airport, Norwood (OWD) | ANE | 1999 | | | | | 1 | | 1 | 0.93 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Worcester Regional Airport, Worcester (ORH) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

| **MICHIGAN** | | | **Severity** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Ann Arbor Municipal Airport, Ann Arbor (ARB) | AGL | 1999 | | | | | | | 0 | 0.00 | 6 |
| | | 2000 | | | | 1 | | | 1 | 0.87 | 9 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | 1 | | | 1 | 1.08 | 0 |
| Bishop International Airport, Flint (FNT) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.74 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.75 | 0 |
| Cherry Capital Airport, Traverse City (TVC) | AGL | 1999 | | | | 1 | | | 1 | 0.78 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Detroit City Airport, Detroit (DET) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Detroit Metropolitan Wayne County International Airport, Detroit (DTW) | AGL | 1999 | | | 1 | | | | 1 | 0.18 | 1 |
| | | 2000 | | 1 | | | | | 1 | 0.18 | 1 |
| | | 2001 | | | 2 | 1 | 1 | | 4 | 0.74 | 5 |
| | | 2002 | | | 1 | 2 | 1 | | 4 | 0.82 | 7 |
| Gerald R. Ford International Airport, Grand Rapids (GRR) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 0.71 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.79 | 1 |
| Jackson County - Reynolds Field, Jackson (JXN) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 1.49 | 0 |
| | | 2001 | | | | 1 | 2 | | 3 | 4.99 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 3.02 | 1 |
| Kalamazoo - Battle Creek International Airport, Kalamazoo (AZO) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | 1 | | 1 | 0.96 | 0 |
| | | 2001 | | | | 2 | | | 2 | 2.10 | 4 |
| | | 2002 | | | | | 1 | | 1 | 1.03 | 0 |
| MBS International Airport, Saginaw (MBS) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Muskegon County Airport, Muskegon (MKG) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 1.21 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Oakland County International Airport, Pontiac (PTK) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |

**MICHIGAN** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| W.K. Kellogg Airport, Battle Creek (BTL) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 0.96 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Willow Run Airport, Detroit (YIP) | AGL | 1999 | | | | | 2 | | 2 | 1.18 | 5 |
| | | 2000 | | 1 | | | 1 | | 2 | 1.36 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | 1 | 3 | | 4 | 3.39 | 7 |

**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 | 1999 | | | | | 1 | | 1 | 0.68 | 5 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.75 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Crystal Airport, Minneapolis (MIC) | AGL | 1999 | | | 1 | 1 | 3 | | 5 | 2.66 | 5 |
| | | 2000 | | | 1 | | 1 | | 2 | 1.07 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 3 | | 3 | 2.29 | 3 |
| Duluth International Airport, Duluth (DLH) | AGL | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | 1 | 1 | | | 2 | 3.12 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 2.69 | 6 |
| Flying Cloud Airport, Minneapolis (FCM) | AGL | 1999 | | | | 2 | 3 | | 5 | 2.66 | 8 |
| | | 2000 | | | | 1 | 1 | | 2 | 0.99 | 1 |
| | | 2001 | | | | 1 | | | 1 | 0.55 | 9 |
| | | 2002 | | | | 3 | 3 | | 6 | 3.31 | 16 |
| Minneapolis - St. Paul International Airport, Minneapolis (MSP) | AGL | 1999 | | | | 2 | | | 2 | 0.40 | 6 |
| | | 2000 | | | 1 | 2 | | | 3 | 0.57 | 7 |
| | | 2001 | | | | 3 | 1 | | 4 | 0.78 | 5 |
| | | 2002 | | | | 1 | 2 | | 3 | 0.60 | 3 |
| Rochester International Airport, Rochester (RST) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | 1 | | 2 | 2.47 | 1 |
| | | 2001 | | | | | 1 | | 1 | 1.29 | 4 |
| | | 2002 | | | | | 1 | | 1 | 1.44 | 1 |
| St. Paul Downtown - Holman Field Airport, St. Paul (STP) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.58 | 1 |

**MISSISSIPPI**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Gulfport - Biloxi International Airport, Gulfport (GPT) | ASO | 1999 | | | | | 1 | | 1 | 0.85 | 1 |
| | | 2000 | | | | | 1 | | 1 | 0.85 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.96 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.92 | 2 |
| Hawkins Field, Jackson (HKS) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Jackson International Airport, Jackson (JAN) | ASO | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Mid Delta Regional Airport, Greenville (GLH) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | | | 1 | 2.84 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Tupelo Regional Airport, Tupelo (TUP) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | 1 | | | | | 1 | 2.17 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**MISSOURI**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Cape Girardeau Regional Airport, Cape Girardeau (CGI) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Charles B. Wheeler - Downtown Airport, Kansas City (MKC) | ACE | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | 1 | | 1 | | | 2 | 1.46 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 6 |
| | | 2002 | | | | | 1 | | 1 | 0.82 | 1 |
| Columbia Regional Airport, Columbia (COU) | ACE | 1999 | | | | | 1 | | 1 | 2.34 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Joplin Regional Airport, Joplin (JLN) | ACE | 1999 | | | | | 1 | | 1 | 2.48 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.74 | 1 |
| | | 2002 | | | | | 2 | | 2 | 5.06 | 1 |
| Kansas City International Airport, Kansas City (MCI) | ACE | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.51 | 1 |
| Lambert - St. Louis International Airport, St. Louis (STL) | ACE | 1999 | | 1 | | 4 | 3 | | 8 | 1.59 | 6 |
| | | 2000 | | | | 3 | 3 | | 6 | 1.23 | 7 |
| | | 2001 | | | | 6 | 2 | | 8 | 1.64 | 2 |
| | | 2002 | | | | | 7 | | 7 | 1.54 | 4 |

**MISSOURI** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Spirit of St. Louis Field, St. Louis (SUS) | ACE | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | 1 | 1 | 1 | | 3 | 1.46 | 8 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Springfield - Branson Regional Airport, Springfield (SGF) | ACE | 1999 | | | | | 1 | | 1 | 0.82 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | 1 | | 2 | 1.99 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |

**MONTANA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Billings - Logan International Airport, Billings (BIL) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Great Falls International Airport, Great Falls (GTF) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Missoula International Airport, Missoula (MSO) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | 1 | | | | 1 | 1.56 | 1 |

**NEBRASKA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Central Nebraska Regional Airport, Grand Island (GRI) | ACE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | | | 1 | 4.27 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Eppley Airfield, Omaha (OMA) | ACE | 1999 | | | | | 1 | | 1 | 0.54 | 2 |
| | | 2000 | | | | 2 | 1 | | 3 | 1.68 | 0 |
| | | 2001 | | | | 2 | | | 2 | 1.36 | 7 |
| | | 2002 | | | | 1 | 1 | | 2 | 1.40 | 4 |
| Lincoln Municipal Airport, Lincoln (LNK) | ACE | 1999 | | | 1 | | 1 | | 2 | 1.62 | 1 |
| | | 2000 | | 1 | | 1 | | | 2 | 1.61 | 3 |
| | | 2001 | | | | | 2 | | 2 | 1.89 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |

**NEVADA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Elko Regional Airport, Elko (EKO) | AWP | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| McCarran International Airport, Las Vegas (LAS) | AWP | 1999 | | | | 4 | 1 | | 5 | 0.96 | 2 |
| | | 2000 | | | | 2 | | | 2 | 0.37 | 1 |
| | | 2001 | | | 1 | 1 | 2 | | 4 | 0.78 | 1 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.41 | 0 |
| North Las Vegas Airport, Las Vegas (VGT) | AWP | 1999 | | | 2 | 1 | 1 | | 4 | 1.68 | 1 |
| | | 2000 | | | 1 | 2 | 11 | | 14 | 6.08 | 23 |
| | | 2001 | | 1 | 1 | 1 | 6 | | 9 | 4.47 | 6 |
| | | 2002 | | | | 1 | 6 | | 7 | 3.48 | 1 |
| Reno/Tahoe International Airport, Reno (RNO) | AWP | 1999 | | | | | 2 | | 2 | 1.31 | 24 |
| | | 2000 | | | 1 | | | | 1 | 0.66 | 25 |
| | | 2001 | | | | | 1 | | 1 | 0.70 | 7 |
| | | 2002 | | | | 2 | 1 | | 3 | 2.07 | 3 |

**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 | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |

**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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.80 | 1 |
| Essex County Airport, Caldwell (CDW) | AEA | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | 1 | | 1 | 0.49 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | 1 | | | 1 | 0.65 | 1 |
| Linden Airport, Linden (LDJ) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Millville Municipal Airport, Millville (MIV) | AEA | 1999 | | | 1 | | | | 1 | 1.34 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Newark Liberty International Airport, Newark (EWR) | AEA | 1999 | | 1 | | 1 | 1 | | 3 | 0.65 | 3 |
| | | 2000 | | | 1 | 4 | 1 | | 6 | 1.31 | 6 |
| | | 2001 | | | | | 3 | | 3 | 0.65 | 5 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.49 | 4 |

**NEW JERSEY** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 1999 | | | 1 | | 2 | | 3 | 1.20 | 2 |
| | | 2000 | | | | 2 | 2 | | 4 | 1.48 | 0 |
| | | 2001 | | | | | 1 | | 1 | 0.37 | 2 |
| | | 2002 | | 1 | | | 3 | | 4 | 1.73 | 3 |
| Trenton Mercer Airport, Trenton (TTN) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**NEW MEXICO**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | 1 | 1 | 1 | | 3 | 1.29 | 0 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.84 | 2 |
| | | 2002 | | | 1 | 1 | | | 2 | 0.78 | 0 |
| Four Corners Regional Airport, Farmington (FMN) | ASW | 1999 | | | 1 | | | | 1 | 0.95 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Roswell Industrial Air Center, Roswell (ROW) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Santa Fe Municipal Airport, Santa Fe (SAF) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | | | 1 | 1.28 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.15 | 0 |

**NEW YORK**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | 1 | | | 1 | 0.69 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.67 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Binghamton Regional Airport, Binghamton (BGM) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | 1 | | | | 1 | 2.50 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Buffalo Niagara International Airport, Buffalo (BUF) | AEA | 1999 | | | | | | | 0 | 0.00 | 5 |
| | | 2000 | | | | 1 | | | 1 | 0.62 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.73 | 0 |
| Dutchess County Airport, Poughkeepsie (POU) | AEA | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | 1 | | | 1 | 0.74 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 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** |
| Elmira Corning Regional Airport, Elmira (ELM) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Farmingdale Republic Airport, Farmingdale (FRG) | AEA | 1999 | | | | 1 | 1 | | 2 | 0.81 | 0 |
| | | 2000 | | 1 | | 4 | | | 5 | 2.33 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.97 | 2 |
| Greater Rochester International Airport, Rochester (ROC) | AEA | 1999 | | | | 1 | 1 | | 2 | 1.07 | 3 |
| | | 2000 | | | | | 3 | | 3 | 1.62 | 10 |
| | | 2001 | | | 1 | 1 | 1 | | 3 | 1.73 | 8 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| John F. Kennedy International Airport, New York City (JFK) | AEA | 1999 | | 1 | 1 | 2 | 2 | | 6 | 1.69 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | 3 | | 3 | 0.88 | 2 |
| | | 2002 | | | | | 2 | | 2 | 0.69 | 3 |
| LaGuardia Airport, New York City (LGA) | AEA | 1999 | | 1 | | 2 | | | 3 | 0.82 | 0 |
| | | 2000 | | 1 | | 1 | 1 | | 3 | 0.79 | 1 |
| | | 2001 | | | 1 | 2 | 1 | | 4 | 0.99 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.56 | 0 |
| Long Island MacArthur International Airport, Islip (ISP) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | 2 | | 2 | 0.87 | 0 |
| | | 2001 | | 1 | | 1 | | | 2 | 0.86 | 1 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.90 | 1 |
| Niagara Falls International Airport, Niagara Falls (IAG) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Oneida County Airport, Utica (UCA) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 1.86 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Stewart International Airport, Newburgh (SWF) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 1 | | | 1 | 0.67 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Syracuse Hancock International Airport, Syracuse (SYR) | AEA | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | 1 | | | 1 | 0.71 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.68 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**NEW YORK** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Tompkins County Airport, Ithaca (ITH) | AEA | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | 1 | | 1 | 1.85 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Westchester County Airport, White Plains (HPN) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | 1 | | 1 | 1 | | 3 | 1.38 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.47 | 1 |
| | | 2002 | | | | 3 | | | 3 | 1.51 | 1 |

**NORTH CAROLINA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Asheville Regional Airport, Asheville (AVL) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Charlotte - Douglas International Airport, Charlotte (CLT) | ASO | 1999 | | 2 | | | | | 2 | 0.45 | 4 |
| | | 2000 | | | | 2 | | | 2 | 0.44 | 3 |
| | | 2001 | | | | 2 | 2 | | 4 | 0.85 | 4 |
| | | 2002 | | | | | 1 | | 1 | 0.21 | 0 |
| Craven County Regional Airport, New Bern (EWN) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Fayetteville Regional Airport, Fayetteville (FAY) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Hickory Regional Airport, Hickory (HKY) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 2.15 | 0 |
| Piedmont Triad International Airport, Greensboro (GSO) | ASO | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | | | 1 | | | 1 | 0.72 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.81 | 1 |
| Raleigh - Durham International Airport, Raleigh/Durham (RDU) | ASO | 1999 | | | | | 1 | | 1 | 0.35 | 4 |
| | | 2000 | | 1 | | 1 | 1 | | 3 | 1.01 | 8 |
| | | 2001 | | | | 2 | 1 | | 3 | 1.02 | 6 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Smith Reynolds Airport, Winston-Salem (INT) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 1.33 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Wilmington International Airport, Wilmington (ILM) | ASO | 1999 | | | | | 1 | | 1 | 1.41 | 2 |
| | | 2000 | | | 1 | | 1 | | 2 | 2.34 | 4 |
| | | 2001 | | | | | 1 | | 1 | 1.24 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.19 | 2 |

**NORTH DAKOTA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Grand Forks International Airport, Grand Forks (GFK) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.43 | 6 |
| | | 2001 | | | | 1 | | | 1 | 0.39 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.71 | 0 |
| Hector International Airport, Fargo (FAR) | AGL | 1999 | | | 1 | | 3 | | 4 | 4.41 | 6 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | 2 | | | 2 | 2.34 | 2 |

**OHIO**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Akron - Canton Regional Airport, North Canton (CAK) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.80 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | 1 | 1 | 1 | | 3 | 2.50 | 2 |
| Akron Fulton International Airport, Akron (AKR) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 4.05 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Bolton Field, Columbus (TZR) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Cincinnati Municipal Airport - Lunken Field, Cincinnati (LUK) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.79 | 9 |
| | | 2002 | | | | | 1 | | 1 | 0.76 | 6 |
| Cleveland Hopkins International Airport, Cleveland (CLE) | AGL | 1999 | | | | 4 | 2 | | 6 | 1.90 | 6 |
| | | 2000 | | | | 1 | | | 1 | 0.30 | 4 |
| | | 2001 | | | | | 1 | | 1 | 0.33 | 7 |
| | | 2002 | | | | | 1 | | 1 | 0.38 | 7 |
| Cuyahoga County Airport, Cleveland (CGF) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 1.49 | 0 |
| Dayton International Airport, Dayton (DAY) | AGL | 1999 | | | | | 1 | | 1 | 0.66 | 7 |
| | | 2000 | | | | | | | 0 | 0.00 | 6 |
| | | 2001 | | 1 | | | | | 1 | 0.74 | 4 |
| | | 2002 | | | | 1 | | | 1 | 0.80 | 3 |
| Mansfield Lahm Regional Airport, Mansfield (MFD) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Ohio State University Airport, Columbus (OSU) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.05 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**OHIO** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Port Columbus International Airport, Columbus (CMH) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.41 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Toledo Express Airport, Toledo (TOL) | AGL | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Youngstown - Warren Regional Airport, Vienna (YNG) | AGL | 1999 | | | | | | | 0 | 0.00 | 5 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.06 | 1 |

**OKLAHOMA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.74 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Lawton Fort Sill Regional Airport, Lawton (LAW) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Richard Lloyd Jones, Jr. Airport, Tulsa (RVS) | ASW | 1999 | | | | | 4 | | 4 | 1.48 | 9 |
| | | 2000 | | | | | 2 | | 2 | 0.72 | 5 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.77 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.31 | 10 |
| Tulsa International Airport, Tulsa (TUL) | ASW | 1999 | | | | 1 | | | 1 | 0.50 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.51 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| University of Oklahoma - Westheimer Airport, Norman (OUN) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 0.85 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Wiley Post Airport, Oklahoma City (PWA) | ASW | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | 1 | | 1 | 1.06 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Will Rogers World Airport, Oklahoma City (OKC) | ASW | 1999 | | | | 1 | | | 1 | 0.62 | 2 |
| | | 2000 | | | | 1 | | | 1 | 0.61 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.58 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.58 | 2 |

| **OREGON** | | | **Severity** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 2.89 | 0 |
| Hillsboro Airport, Hillsboro (HIO) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.46 | 0 |
| Klamath Falls Airport, Klamath Falls (LMT) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 2.16 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Mahlon Sweet Field, Eugene (EUG) | ANM | 1999 | | | | | 1 | | 1 | 0.88 | 3 |
| | | 2000 | | | 1 | | | | 1 | 0.91 | 0 |
| | | 2001 | | | | 2 | 2 | | 4 | 3.69 | 4 |
| | | 2002 | | | | 1 | 1 | | 2 | 2.16 | 5 |
| McNary Field, Salem (SLE) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | 1 | 1 | | 2 | 4.13 | 1 |
| Portland International Airport, Portland (PDX) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | 1 | | | | 1 | 0.31 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 10 |
| Portland Troutdale Airport, Portland (TTD) | ANM | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | 3 | 2 | | 5 | 6.50 | 6 |
| | | 2001 | | | | | 1 | | 1 | 1.43 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 5 |
| Roberts Field, Redmond (RDM) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 2 | | 2 | 3.62 | 1 |
| | | 2001 | | | | 2 | 1 | | 3 | 5.57 | 0 |
| | | 2002 | | | | 1 | 1 | | 2 | 3.73 | 1 |
| Rogue Valley International Airport, Medford (MFR) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 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 | 1999 | | | | | | | 0 | 0.00 | 5 |
| | | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | | 1 | | 1 | 0.83 | 1 |
| Capital City Airport, Harrisburg (CXY) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | | | 1 | 1.50 | 0 |
| | | 2002 | | | | 1 | | | 1 | 1.58 | 0 |
| Erie International Airport - Tom Ridge Field, Erie (ERI) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| John Murtha - Johnstown - Cambria County Airport, Johnstown (JST) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Lancaster Airport, Lancaster (LNS) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Lehigh Valley International Airport, Allentown (ABE) | AEA | 1999 | | | | 2 | | | 2 | 1.30 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Northeast Philadelphia Airport, Philadelphia (PNE) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Philadelphia International Airport, Philadelphia (PHL) | AEA | 1999 | | | 2 | 1 | | | 3 | 0.63 | 1 |
| | | 2000 | | | 1 | 2 | | | 3 | 0.62 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.43 | 3 |
| Pittsburgh International Airport, Pittsburgh (PIT) | AEA | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | 1 | | | 1 | 0.22 | 2 |
| | | 2001 | | | | | | 1 | 1 | 0.22 | 1 |
| | | 2002 | | | | | 1 | | 1 | 0.23 | 0 |
| Reading Regional Airport - Carl A. Spaatz Field, Reading (RDG) | AEA | 1999 | | | | 1 | | | 1 | 0.74 | 2 |
| | | 2000 | | | | | 1 | | 1 | 0.68 | 3 |
| | | 2001 | | | | | 1 | | 1 | 0.68 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.66 | 1 |

**PENNSYLVANIA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Wilkes-Barre/Scranton International Airport, Wilkes-Barre/Scranton (AVP) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Williamsport Regional Airport, Williamsport (IPT) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 3.79 | 3 |

**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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Luis Muñoz Marin International Airport, San Juan (SJU) | ASO | 1999 | | | | 2 | 2 | | 4 | 1.86 | 4 |
| | | 2000 | | | | | 2 | | 2 | 0.81 | 19 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.95 | 12 |
| | | 2002 | | | | 1 | 2 | | 3 | 1.49 | 5 |

**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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**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 | 1999 | | | | | 2 | | 2 | 1.27 | 4 |
| | | 2000 | | 1 | | 2 | 3 | | 6 | 3.82 | 7 |
| | | 2001 | | | | 1 | | | 1 | 0.67 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.69 | 0 |

**SOUTH CAROLINA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Charleston AFB / International Airport, Charleston (CHS) | ASO | 1999 | | | | 2 | 1 | | 3 | 2.32 | 4 |
| | | 2000 | | | | | 2 | | 2 | 1.43 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Columbia Metropolitan Airport, Columbia (CAE) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**SOUTH CAROLINA** – continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Florence Regional Airport, Florence (FLO) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | 1 | | | | | 1 | 2.58 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Grand Strand Airport, North Myrtle Beach (CRE) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Greenville - Spartanburg Airport, Greer (GSP) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Greenville Downtown Airport, Greenville (GMU) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 1.22 | 1 |
| Hilton Head Airport, Hilton Head Island (HXD) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Myrtle Beach International Airport, Myrtle Beach (MYR) | ASO | 1999 | | | | | | | 0 | 0.00 | 4 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**SOUTH DAKOTA**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Joe Foss Field, Sioux Falls (FSD) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 1.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.94 | 2 |
| Rapid City Regional Airport, Rapid City (RAP) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 1.69 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |

**TENNESSEE**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Lovell Field, Chattanooga (CHA) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| McGee Tyson Airport, Knoxville (TYS) | ASO | 1999 | | | | | 1 | | 1 | 0.70 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | 1 | 5 | | 6 | 4.06 | 5 |
| | | 2002 | | | | | 1 | | 1 | 0.66 | 7 |

**TENNESSEE**– continued

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| McKellar Sipes Regional Airport, Jackson (MKL) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Memphis International Airport, Memphis (MEM) | ASO | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | 2 | 1 | | 3 | 0.79 | 1 |
| | | 2001 | | | | 1 | 2 | | 3 | 0.75 | 3 |
| | | 2002 | | | | 1 | | | 1 | 0.25 | 3 |
| Nashville International Airport, Nashville (BNA) | ASO | 1999 | | | | 2 | 1 | | 3 | 1.25 | 1 |
| | | 2000 | | | | | 1 | | 1 | 0.40 | 9 |
| | | 2001 | | | | | 1 | | 1 | 0.41 | 2 |
| | | 2002 | | | | 1 | | | 1 | 0.43 | 1 |
| Smyrna Airport, Smyrna (MQY) | ASO | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**TEXAS**

| Airport, City (Airport Code) | Region | Fiscal Year | Severity | | | | | | Total RIs | Annual RI Rate | Total SIs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Collision | A | B | C | D | ID | | | |
| Abilene Regional Airport, Abilene (ABI) | ASW | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Addison Airport, Dallas (ADS) | ASW | 1999 | | | | 2 | 2 | | 4 | 2.33 | 2 |
| | | 2000 | | | | 1 | | | 1 | 0.59 | 5 |
| | | 2001 | | | | | 1 | | 1 | 0.62 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.63 | 0 |
| Amarillo International Airport, Amarillo (AMA) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 0.79 | 3 |
| | | 2001 | | | | | 1 | | 1 | 0.82 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Austin - Bergstrom International Airport, Austin (AUS) | ASW | 1999 | | 1* | | | | | 1 | 0.54 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Brownsville South Padre Island International Airport, Brownsville (BRO) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 3.25 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Dallas / Fort Worth International Airport, Dallas (DFW) | ASW | 1999 | | 1 | | 6 | | | 7 | 0.81 | 0 |
| | | 2000 | | | 2 | 1 | 2 | | 5 | 0.57 | 4 |
| | | 2001 | | 1 | 2 | 1 | 2 | | 6 | 0.72 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**This runway incursion occurred at the former Austin-Robert Mueller Municipal Airport (AUS)*

**TEXAS** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Dallas Love Field, Dallas (DAL) | ASW | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | 1 | | 1 | 0.39 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| David Wayne Hooks Memorial Airport, Houston (DWH) | ASW | 1999 | | | | | 2 | | 2 | 0.73 | 3 |
| | | 2000 | | | | 1 | 3 | | 4 | 1.66 | 12 |
| | | 2001 | | | | | 1 | | 1 | 0.53 | 6 |
| | | 2002 | | | 1 | 1 | | | 2 | 1.01 | 3 |
| East Texas Regional Airport, Longview (GGG) | ASW | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | 1 | | 1 | 1.08 | 0 |
| El Paso International Airport, El Paso (ELP) | ASW | 1999 | | | | 1 | | | 1 | 0.69 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.77 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Fort Worth Alliance Airport, Fort Worth (AFW) | ASW | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Fort Worth Meacham International Airport, Fort Worth (FTW) | ASW | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | 1 | | 1 | 0.31 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.40 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.43 | 1 |
| George Bush Intercontinental Airport, Houston (IAH) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 0.21 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.22 | 2 |
| Grand Prairie Municipal Airport, Grand Prairie (GPM) | ASW | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Lubbock International Airport, Lubbock (LBB) | ASW | 1999 | | | | | 1 | | 1 | 0.89 | 0 |
| | | 2000 | | | | | 2 | | 2 | 1.46 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| McKinney Municipal Airport, McKinney (TKI) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Montgomery County Airport, Conroe (CXO) | ASW | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**TEXAS** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| San Angelo Regional Airport - Mathis Field, San Angelo (SJT) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 1.08 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| San Antonio International Airport, San Antonio (SAT) | ASW | 1999 | | | 1 | 2 | 3 | | 6 | 2.39 | 4 |
| | | 2000 | | | | 2 | | | 2 | 0.78 | 3 |
| | | 2001 | | | 1 | | | | 1 | 0.43 | 3 |
| | | 2002 | | | | 1 | 1 | | 2 | 0.85 | 7 |
| Southeast Texas Regional Airport, Beaumont/ Port Arthur (BPT) | ASW | 1999 | | | 1 | | | | 1 | 1.86 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Stinson Municipal Airport, San Antonio (SSF) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | 1 | | | | 1 | 0.54 | 0 |
| Sugar Land Regional Airport, Houston (SGR) | ASW | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 2 | | | 2 | 2.10 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Tyler Pounds Regional Airport, Tyler (TYR) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | 1 | | | 1 | 0.89 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Waco Regional Airport, Waco (ACT) | ASW | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | 1 | | | | 1 | 1.63 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.75 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| William P. Hobby Airport, Houston (HOU) | ASW | 1999 | | | 1 | | | | 1 | 0.39 | 1 |
| | | 2000 | | | | 1 | 1 | | 2 | 0.78 | 1 |
| | | 2001 | | | | 2 | | | 2 | 0.81 | 2 |
| | | 2002 | | | | | 1 | | 1 | 0.40 | 2 |

**UTAH**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Ogden Hinckley Airport, Ogden (OGD) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Provo Municipal Airport, Provo (PVU) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Salt Lake City International Airport, Salt Lake City (SLC) | ANM | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | 1 | 2 | 2 | | 5 | 1.35 | 2 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.55 | 7 |
| | | 2002 | | | | 2 | 2 | | 4 | 1.00 | 5 |

**VERMONT**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Burlington International Airport, Burlington (BTV) | ANE | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.84 | 3 |
| | | 2002 | | | | | 1 | | 1 | 0.90 | 1 |

**VIRGIN ISLANDS**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Charlotte Amalie - Cyril King International Airport, St. Thomas (STT) | ASO | 1999 | | 1 | | | 1 | | 2 | 1.93 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**VIRGINIA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Lynchburg Regional Airport - Preston Glenn Field, Lynchburg (LYH) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Manassas Regional Airport - Harry P. Davis Field, Manassas (HEF) | AEA | 1999 | | | | | | | 0 | 0.00 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | 1 | | | 1 | 0.76 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Norfolk International Airport, Norfolk (ORF) | AEA | 1999 | | | | 1 | | | 1 | 0.66 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | 1 | | | 1 | 0.78 | 1 |
| Richmond International Airport, Richmond (RIC) | AEA | 1999 | | | | | 1 | | 1 | 0.78 | 5 |
| | | 2000 | | | | | | | 0 | 0.00 | 5 |
| | | 2001 | | | | | | | 0 | 0.00 | 4 |
| | | 2002 | | | | | 1 | | 1 | 0.74 | 2 |
| Roanoke Regional Airport - Woodrum Field, Roanoke (ROA) | AEA | 1999 | | | | 1 | 1 | | 2 | 1.93 | 3 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | 1 | | 1 | 1.02 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Washington Dulles International Airport, Sterling (IAD) | AEA | 1999 | | | | | 1 | | 1 | 0.22 | 4 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 1 | | 1 | 0.23 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Williamsburg International Airport, Newport News (PHF) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 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 | 1999 | | | 1 | | | | 1 | 0.31 | 2 |
| | | 2000 | | | | 2 | 2 | | 4 | 1.11 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 5 |
| | | 2002 | | 1 | | | | | 1 | 0.36 | 1 |
| Felts Field, Spokane (SFF) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | 1 | | 1 | 1.31 | 1 |
| | | 2001 | | | | 1 | | | 1 | 1.44 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Grant County International Airport, Moses Lake (MWH) | ANM | 1999 | | 1 | | | 1 | | 2 | 1.57 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 3 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Olympia Airport, Olympia (OLM) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Renton Municipal Airport, Renton (RNT) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | 1 | | 1 | 0.76 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | 1 | | 1 | 0.88 | 2 |
| Seattle - Tacoma International Airport, Seattle (SEA) | ANM | 1999 | | | | | 4 | | 4 | 0.93 | 5 |
| | | 2000 | | | | 1 | 1 | | 2 | 0.45 | 3 |
| | | 2001 | | 1 | | 2 | 1 | | 4 | 0.94 | 8 |
| | | 2002 | | | | 1 | 3 | | 4 | 1.11 | 8 |
| Snohomish County - Paine Field, Everett (PAE) | ANM | 1999 | | | | | 1 | | 1 | 0.50 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | 1 | 1 | | 2 | 0.94 | 3 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Spokane International Airport, Spokane (GEG) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | 1 | | 1 | 0.89 | 1 |
| | | 2002 | | | | 1 | | | 1 | 0.93 | 0 |
| Tri-Cities Airport, Pasco (PSC) | ANM | 1999 | | | | | 1 | | 1 | 1.05 | 2 |
| | | 2000 | | | | 1 | | | 1 | 1.06 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Walla Walla Regional Airport, Walla Walla (ALW) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 2.30 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Yakima Air Terminal - McAllister Field, Yakima (YKM) | ANM | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 4 |
| | | 2001 | | | | | | | 0 | 0.00 | 2 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**WEST VIRGINIA**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Harrison Marion Regional Airport, Clarksburg (CKB) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | 2 | | 2 | 3.53 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 2 |
| Morgantown Municipal Airport, Morgantown (MGW) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | 1 | | | | 1 | 2.40 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Tri-State Airport - Milton J. Ferguson Field, Huntington (HTS) | AEA | 1999 | | | | | | | 0 | 0.00 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 2 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Wheeling - Ohio County Airport, Wheeling (HLG) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Yeager Field, Charleston (CRW) | AEA | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | 1 | | 1 | 1.15 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |

**WISCONSIN**

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Austin Straubel International Airport, Green Bay (GRB) | AGL | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | 1 | 2 | | 3 | 4.42 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Central Wisconsin Airport, Mosinee (CWA) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |
| Dane County Regional Airport - Truax Field, Madison (MSN) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | 1 | | 1 | 0.74 | 2 |
| | | 2001 | | | | 1 | | | 1 | 0.80 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| General Mitchell International Airport, Milwaukee (MKE) | AGL | 1999 | | | 3 | | 1 | | 4 | 1.83 | 7 |
| | | 2000 | | 1 | | 1 | 1 | | 3 | 1.33 | 1 |
| | | 2001 | | | 1 | | 1 | | 2 | 0.93 | 7 |
| | | 2002 | | | | 1 | | | 1 | 0.47 | 2 |
| Kenosha Regional Airport, Kenosha (ENW) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 1 |
| | | 2002 | | | | | 1 | | 1 | 1.17 | 3 |
| Outagamie County Regional Airport, Appleton (ATW) | AGL | 1999 | | | | 1 | 1 | | 2 | 3.28 | 1 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |

**WISCONSIN** – continued

| | | | Severity | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Airport, City (Airport Code)** | **Region** | **Fiscal Year** | **Collision** | **A** | **B** | **C** | **D** | **ID** | **Total RIs** | **Annual RI Rate** | **Total SIs** |
| Rock County Airport, Janesville (JVL) | AGL | 1999 | | | | | 1 | | 1 | 1.20 | 2 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | 1 | | | | 1 | 1.24 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 1 |
| Waukesha County Airport, Waukesha (UES) | AGL | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 3 |
| Wittman Regional Airport, Oshkosh (OSH) | AGL | 1999 | | | | | | | 0 | 0.00 | 2 |
| | | 2000 | | | | | 1 | | 1 | 0.91 | 1 |
| | | 2001 | | | 1 | | 1 | | 2 | 1.94 | 1 |
| | | 2002 | | | | | | | 0 | 0.00 | 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 | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 0 |
| | | 2001 | | | | | | | 0 | 0.00 | 8 |
| | | 2002 | | | | | | | 0 | 0.00 | 10 |
| Natrona County International Airport, Casper (CPR) | ANM | 1999 | | | | | | | 0 | 0.00 | 0 |
| | | 2000 | | | | | | | 0 | 0.00 | 1 |
| | | 2001 | | | | | | | 0 | 0.00 | 0 |
| | | 2002 | | | | | | | 0 | 0.00 | 0 |