RUNWAY SAFETY
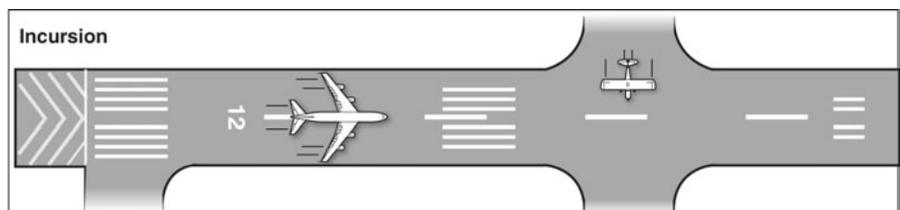
Progress on Reducing Runway Incursions Impeded by Leadership, Technology, and Other Challenges

Why GAO Did This Study

While aviation accidents in the United States are relatively infrequent, recent incidents have heightened concerns about safety on airport runways. As the nation's aviation system becomes more crowded every day, increased congestion at airports may exacerbate ground safety concerns. This statement discusses (1) the trends in runway incursions, (2) what FAA has done to improve runway safety, and (3) what more could be done. This statement is based on GAO's November 2007 report issued to this committee on runway safety. GAO's work on that report included surveying experts on the causes of runway incidents and accidents and the effectiveness of measures to address them, reviewing safety data, and interviewing agency and industry officials. This statement also contains information from FAA on recent incursions and actions taken since November 2007.

What GAO Recommends

In prior work, GAO recommended that FAA take several measures to enhance runway safety, such as updating its national runway safety plan, collecting more complete data on runway incidents, and addressing air traffic controller fatigue. The agency agreed to consider the recommendations.

What GAO Found

Recent data indicate that runway incursions, which are precursors to aviation accidents, are growing. Although the number and rate of incursions declined after reaching a peak in fiscal year 2001 and remained relatively constant for the next 5 years, they show a recent upward trend. From fiscal year 2006 through fiscal year 2007, the number and rate of incursions increased by 12 percent and both were nearly as high as their 2001 peak. Furthermore, the number of serious incursions—where collisions are narrowly or barely avoided—increased from 2 during the first quarter of fiscal year 2007 to 10 during the same quarter in fiscal year 2008.

FAA has taken steps to address runway safety, but further progress has been impeded by the lack of leadership and coordination, technology challenges, lack of data, and human factors-related issues. FAA's actions have included deploying and testing technology designed to prevent runway collisions and promoting changes in airport layout, markings, signage, and lighting. However, until recently, FAA's Office of Runway Safety did not have a permanent director. Also, FAA has not updated its national runway safety plan since 2002, despite agency policy that such a plan be prepared every 2 to 3 years, resulting in uncoordinated efforts within the agency. Moreover, runway safety technology currently being installed, which is designed to provide air traffic controllers with the position and identification of aircraft on the ground and alerts of potential collisions, is behind schedule and experiencing cost increases and operational difficulties with its alerting function. FAA also lacks reliable runway safety data and the mechanisms to ensure that the data are complete. Furthermore, air traffic controller fatigue, which may result from regularly working overtime, continues to be a matter of concern for the National Transportation Safety Board (NTSB) and others.

FAA could take additional measures to improve runway safety. These measures include implementing GAO's recommendations to prepare a new national runway safety plan, address controller overtime and fatigue, and start a nonpunitive, confidential, voluntary program for air traffic controllers to report safety risks in the national airspace system, which would be similar to a program that FAA has already established for pilots and others in the aviation community. Such a program could help the agency to understand the causes and circumstances regarding runway safety incidents. Additional improvements, suggested by experts and NTSB, include developing and deploying technology to provide alerts directly to pilots.

Source: GAO.

United States Government Accountability Office