

Commercial Pilot Checklist - Reducing Runway Incursions

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The following is the FAA guideline for commercial pilots about reducing runway incursions. As a [flight training student](#), it is important to review this so you will have a better understanding of what a commercial pilot does. This guideline helps pilots improve their safety standards and it keeps them sharp and vigilant. Flight training students should continually visit the [FAA website](#) for all kinds of important information.

What is a Runway Incursion?

A runway incursion is any unauthorized intrusion onto a runway, regardless of whether or not an aircraft presents a potential conflict. This is the international standard, as defined by the International Civil Aviation Organization and adopted by the FAA in fiscal year 2008.

It is important to note that the FAA formerly tracked incidents that did not involve potential aircraft conflicts as surface incidents. These incidents were not classified as “runway incursions” and were tracked and monitored separately. Most of these events are now considered Category C or D incursions, which are low-risk incidents with either no conflict potential or ample time or distance to avoid a collision. This means that the total number of runway incursion reports increased primarily because surface incidents are now classified as runway incursions.

Types of Runway Incursions

There are four categories of runway incursions:

- Category A is a serious incident in which a collision was narrowly avoided
- Category B is an incident in which separation decreases and there is a significant potential for collision, which may result in a time critical corrective/evasive response to avoid a collision.
- Category C is an incident characterized by ample time and/or distance to avoid a collision.
- Category D is an incident that meets the definition of runway incursion such as incorrect presence of a single vehicle/person/aircraft on the protected area of a surface designated for the landing and take-off of aircraft but with no immediate safety consequences.

Background

Pilots made more than 50 million takeoffs and landings in fiscal year 2009 at U.S. airports with air traffic control towers. These operations were handled by about 15,000 air traffic controllers at more than 500 towered airports. Adding to this complex choreography are the hundreds of thousands of individuals who drive vehicles on airport grounds.

The sheer number of flights, people, and vehicles moving across airport runways and taxiways means there is no single way to reduce runway incursions. Runway safety is a shared responsibility among pilots, controllers, and vehicle drivers. Automated warning systems enhance runway safety, but education and situational awareness are the keys to preventing incursions.

Outreach to Pilots

The majority of runway incursions are caused by pilots in violation of regulations and air traffic control instructions — also known as pilot deviations. The FAA completed an analysis of taxi clearances and found that more explicit instructions are needed from controllers to pilots. The FAA has issued new requirements for controllers to give explicit directions to pilots on precise routes to travel from the gate to the runway. The FAA has also issued new requirements for aircraft to have crossed all intervening runways prior to receiving a takeoff clearance. Future requirements will cover runway crossing clearances, take off and landing clearances and the adaptation of international surface phraseology.

Other Outreach Efforts:

The FAA published a booklet for pilots, which highlights communication procedures for safe surface operations at towered and non-towered airports.

The agency, in association with the Aircraft Owners and Pilots Association (AOPA), created two online courses that educate pilots on runway safety.

One is tailored for [commercial aviation pilots](#) and the other for general aviation pilots.

Every year, the FAA conducts hundreds of safety seminars across the country to encourage safe practices on the airfield.

The role of Flight Service Station specialists was expanded to provide runway safety information to pilots using towered and non-towered airports.

FAA Aviation Safety Inspectors now verify that pilots have current surface movement charts (airport diagrams) available and that they are in use.

The FAA, in conjunction with AOPA and the National Association of Flight Instructors, recently sent a runway safety brochure and a DVD with four relevant runway safety videos to U.S. pilots and [flight instructors](#).

Runway Safety

The reduction in the number and severity of runway incursions is one of the FAA's top priorities. The number of serious runway incursions — classified as Categories A and B — dropped by more than 63 percent from fiscal year 2000 through fiscal year 2008. In fiscal year 2009 — which ended Sept. 30 — there were 12 serious runway incursions, 50 percent fewer than the previous fiscal year. Two of the serious incursions involved commercial aircraft and were considered operational errors. All categories of runway incursions were down by six percent in fiscal year 2009 versus fiscal year 2008 — 951 in 2009 compared to 1009 in 2008.

As the [flight student](#) continues to advance towards graduation, he or she will be using the FAA website more and more. It has a wealth of information that is vital for a successful commercial pilot career.