



Runway Incursion

Definition

Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take off of aircraft.

(Source: ICAO Doc 4444 - PANS-ATM)

Note: the 'incorrect presence' may be a consequence of a failure of a pilot or vehicle driver to comply with a valid ATC clearance or their compliance with an inappropriate ATC clearance.

Effects

An increased risk of [collision](#) for aircraft on the ground. When collisions occur off the runway, the aircraft and/or vehicles involved are usually travelling relatively slowly: in contrast, when a collision occurs on the runway, at least one of the aircraft involved will often be travelling at considerable speed which increases the risk of significant aircraft damage and the severity of the consequences therefrom, including serious or fatal injury.

Most Common Runway Incursion Types

According to the analysis of a sample of investigated accidents and serious incidents involving runway incursions which occurred in the period 2014-2016, the following generic types can be distinguished:

- Incorrect entry of an aircraft or vehicle onto the runway protected area (without or contrary to ATC clearance or due to incorrect ATC clearance)
- Incorrect presence of a vacating aircraft or vehicle onto the runway protected area
- Incorrect runway crossing by an aircraft or vehicle (without or contrary to ATC clearance or due to incorrect ATC clearance)
- Incorrect spacing between successive arriving or arriving and departing or departing and arriving aircraft
- [Landing without ATC Clearance](#)
- [Take-off without ATC Clearance](#)

Typical Scenarios

- **ATCO-induced situation.** The controller does not ensure sufficient spacing between two successive landing aircraft or between the preceding departing aircraft and the succeeding landing aircraft, and issues the landing clearance to the succeeding aircraft which causes the infringement of the applicable runway use spacing/separation minima.
- **Flight Crew-induced situation.** An aircraft lands at an unfamiliar airport and the flight crew becomes disorientated as they exit the runway. Despite this, they acknowledge taxi instructions and without being confident of their position or the taxi route given, continue taxiing and inadvertently enter an active runway.
- **Vehicle driver-induced situation.** The vehicle driver is not sufficiently familiar with the maneuvering area layout at an airport (e.g. due to inappropriate training and lack of formal runway access approval dependent upon satisfactory training completion) and misinterprets the runway entry clearance issued by ATC which causes him to enter the runway at the incorrect position.

Contributory Factors

- **Weather**
- **Aerodrome design**
- **Multiple Simultaneous Line-ups**
- **Conditional Clearances**
- **Simultaneous use of runways**
- **Late Issue of or late changes to Departure Clearances.**
- **Phraseology**
- **Concurrent Use of More than One Language for ATC communications.**
- **English Language.**
- **Workload.**