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Runway Incursions

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Runway Incursions

A runway incursion is a scenario involving unwanted aircraft, person or automobile in a secure area or surface preserved for touchdown as well as take-off (Federal Aviation Authority, 2020). Normally, runway incursions happen in different ways. For instance, an aircraft or vehicle can cross in front of a landing aircraft, or one that is taking off. A vehicle or an aircraft can be unsure of its position and might end up on the runway. Another scenario is when there is a breakdown in communication, which may lead to failure in following up instructions from the air traffic controller. Mostly, majority of runway incursions happen due to human error, be it violations or honest mistakes.

A study conducted by the Federal Aviation Administration (FAA) together with the International Federal Aviation Organization (ICAO) noted that 66% of runway incursions are a result of pilot error, 17% by pedestrians and vehicles, and 16% by air traffic control error (Werfelman, 2018). The reason varies, but incursions happen due to complex airport markings and numerous signs that are difficult to read at night, busy radios that can distract pilots and other crew members on the ground. One of the dominant factors is communication breakdown when airline workers use non-standardized phrases in their communication. A good example is the Tenerife runway incursion that left 583 people dead. In this case, the pilot used a non-standardized phrase “we are now at take-off” and the tower replied “okay.” (Maharaj, 2020). As a result, the pilot misinterpreted the instructions leading to the disaster. A standard phrase that the air traffic controller uses, in this case, is Line Up and Wait.

The best solution for dealing with runway incursions involves proper personnel training that takes a collaborative approach involving all industry stakeholders. The FAA is already working with partners to develop runway safety solutions. Furthermore, the FAA has also

developed a training manual for airport vehicle drivers certified upon completion of training (Federal Aviation Authority, 2020).

Moreover, runway safety technologies that increase situational awareness among pilots and airport workers are continuously improving. For instance, the FAA developed the Runway Status Lights to make airport vehicle drivers and the aircrews more aware. Other technologies include the Surface Detection Equipment, Electronic Flight Bag with a moving map display among others. However, technology is as good as the user. In this regard, the best way to deal with runway incursions is to limit human error by ensuring the technologies adopted are used accordingly.

References

- Federal Aviation Authority. (2020, March 20). *Fact sheet – Runway safety*. United States Department of Transportation. https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=14895
- Maharaj, I. (2020). *General Aviation Airport Runway Incursions: A Qualitative Approach to Examining Reasons for, Barriers to Addressing, and Lessons Learned from Airport Managers' First-Hand Experiences* (Doctoral dissertation).
- Werfelman, L. (2018, October 31). *Tracking runway incursions*. Flight Safety Foundation. <https://flightsafety.org/asw-article/tracking-runway-incursions/>

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