

The Anatomy of a Wrong Surface Event: Episode 3 - Training – Script FINAL

This animation series will explore the anatomy of wrong surface landings.

Wrong surface events, such as wrong runway or taxiway approaches, landings, and departures, are a prevalent threat to you as a pilot.

Several factors contribute to wrong surface events. We'll explore some of them as they related to real-life situations. By understanding the anatomy of these events, we can avoid making similar mistakes.

We'll help you identify risk mitigation procedures and best practices to avoid this type of unsafe operations.

In this three-part series of animations, we reviewed factors that contribute to wrong surface events.

Part 1, Pilot;
Part 2, Environment; and
Part 3, Training.

In Part 3, we will review topics that pilots should be trained on, such as

- Pilot/Controller Communications;
- Runway Incursion Avoidance;
- Signs/Markings/Lighting; and
- Proficiency with Aircraft and Avionics.

In this real-life event, a light single-engine aircraft was arriving at a large airport after a flight of over 230 miles. There were multiple aircraft operating at this airport.

Skylane "Niner-Zero-One" was operating in day Visual Meteorological Conditions.

The pilot, while instrument current and having recently flown with an instructor, was not familiar with the airport or the aircraft's avionics. Upon arriving into the large airport's airspace, Niner-Zero-One was advised by approach to expect a straight-in visual approach to Runway 2-Right.

When switched over to the tower, he was then cleared to Runway 2-Left.

Skylane 901: Approach, Skylane niner-zero-one present flier; we're over Havana and, uh, we're about 5,500 feet inbound for East (unintelligible), and we do have connect.

Controller: Niner-zero-one, approach. Roger.

Skylane 901: Mixed(?) straight in for runway 2R. (unintelligible) contact.

Controller: Straight in for 2R, niner-zero-one; thank you.

Tower: Niner-zero-one, Tower number two following a Cherokee, joining the left (unintelligible). Runway 2L cleared to land. Braking action medium reported by a Boeing 737.

Skylane 901: Cleared for zero 2L at number two. Niner-zero-one.

Tower: Zero-one, copy. Proceed on runway 2R.

Skylane 901: (unintelligible) and company, proceeding on 2R

? : Tower, (unintelligible)

Tower: (unintelligible) bay two zulu, wind calm, altimeter two niner five eight and proceed (unintelligible) heading one eight zero.

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?: (unintelligible) one eight zero.

Tower: (unintelligible) bay two zulu; resume navigation.

?: (unintelligible)

?: Four-tango-charlie, cleared to land.

Tower: Copy, four-tango-charlie; frequency change approved.

?: (unintelligible)

?: (unintelligible) question

Tower: (unintelligible) question

?: Tower, (unintelligible) did (unintelligible) just land on alpha?

Tower: It appears that it did, yeah.

What can we learn from this event?

There are a number of training factors that contributed to this event.

- The pilot, despite recent flights with a CFI, failed to conduct an appropriate preflight briefing and planning. This lapse indicates a training failure, which ultimately resulted in the pilot's lack of knowledge of the importance of conducting preflight planning and briefings. The unfortunate consequence was that the pilot did not reference the airport diagram, and was unfamiliar with the airport layout.
- The pilot was also unfamiliar with his new avionics. By trying to figure out how to program an approach while in flight and as a single pilot, he quickly became distracted and disoriented.
- The pilot also demonstrated a lack of knowledge of runway markings and lighting. The pilot saw the approach lighting system and airport markings, but admitted that he wasn't able to comprehend them until after he had landed. The fact that Runway 2-Right, was visually distant from Runway 2-Left **and** Taxiway Alpha, contributed to the disorientation. Combined, those factors caused the pilot to mis-identify Taxiway Alpha for Runway 2-Left, and Runway 2-Left for Runway 2-Right. While there was an expectation to land on 2-Right, the pilot was cleared to land on 2-Left and was not aligned with the runway.
- Finally, the pilot demonstrated a lack of judgement when he failed to go around.

There are a number of ways we can stop wrong surface landings, and they all begin with the basics.

Remember to train for runway incursion avoidance and wrong surface operations. This goes beyond a general recognition of airport signs and markings.

Familiarize yourself with available resources, such as Chart Supplements, Airport Diagrams, and NOTAMs.

The FAA has several resources that you can use to increase your safety, and to promote discussion with your peers and instructors. You can find these by clicking on the resources tab. Also, you should check for more informational resources on airports such as FAA's *From the Flight Deck* videos.

Always be prepared to go-around if in any doubt of making a safe landing.

Remember, the most dangerous part of a flight is quite likely in the airport environment. Respect that risk.

Use all of the tools at your disposal BEFORE making decisions. It's always better to know before you go.