



GERMANWINGS CRASH: HAVE COCKPIT DOORS CHANGED?

News / Airlines



It's one year since Germanwings Flight 9525 crashed, killing everyone on board. There was widespread concern that the captain found himself locked out of the cockpit by the co-pilot, but has anything changed?

A year ago, a Germanwings flight from Barcelona to Dusseldorf was travelling over the French Alps.

The plane's final contact with air traffic control came at 09:30 GMT. The pilot left the cockpit about this time, reportedly to use the toilet. A minute later the fatal descent started.

When the pilot attempted to re-enter, he was unable to do so. Pounding on the door and muffled voices were heard on the cockpit voice recorder. His co-pilot Andreas Lubitz was deliberately taking down the plane. Ten minutes later, the plane had crashed into the mountains.

All 150 passengers and crew on board died.

There was a clamour to prevent a repeat. Victims' families said "it should never happen again".

Investigations were opened. Questions about the design of the cockpit doors were asked. As the one year anniversary approaches, has anything changed?

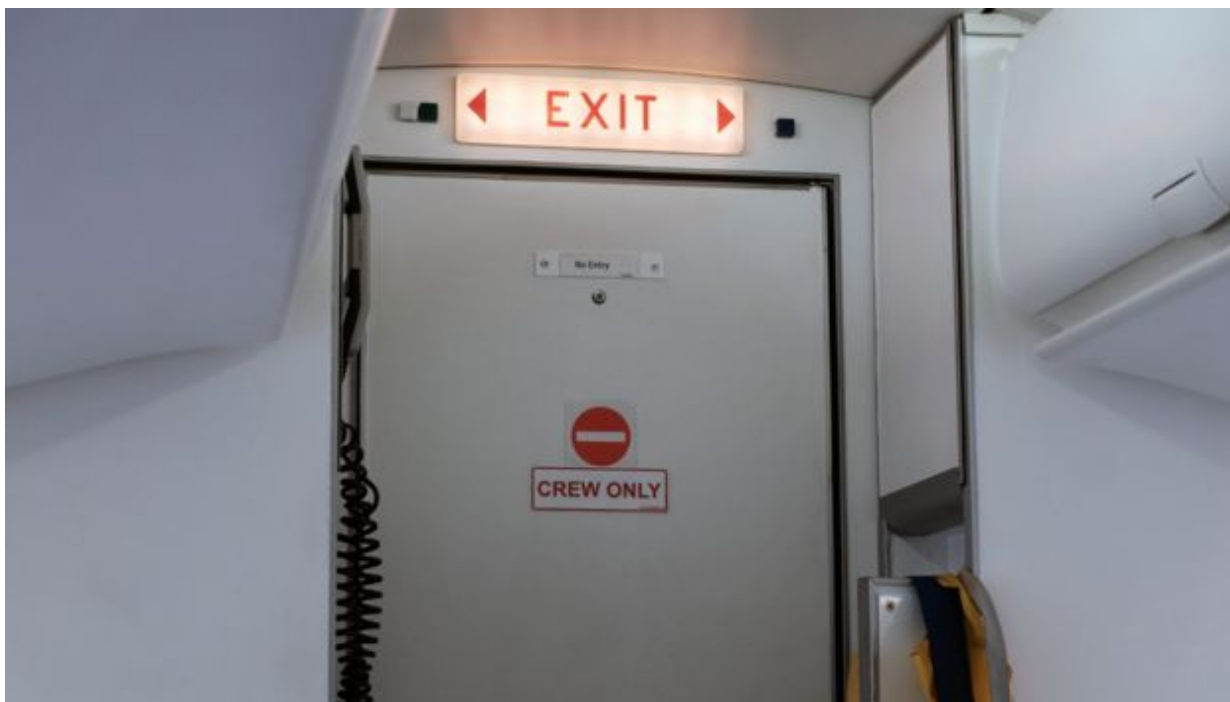


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The pilot had no way to get into the cabin because of one event - 9/11. The hijackers easily stormed cockpits. Afterwards protocol and security was changed so the doors were always closed and locked, and they were designed to be nearly impregnable.

Lubitz took advantage of this. Even though entry to the cockpit is potentially made possible by entering the correct code into a keypad outside the cockpit, a pilot intent on taking a flight down can still prevent this from happening.

So did the Germanwings crash suggest that the cockpit was too secure? In the aftermath of the crash some wondered if there should be some form of override but it was pointed out that any such override was theoretically exploitable by a terrorist.

Instead the airlines have changed their policies.

Lufthansa, the owner of Germanwings - it now trades under the name Eurowings - as with many other airlines, changed their rules so that two members of cabin crew must be on the flight deck at all times "as a precautionary measure". Other European airlines including Easyjet, Monarch Airlines and Thomas Cook followed suit while others, such as Ryanair and Flybe, already had such a policy.

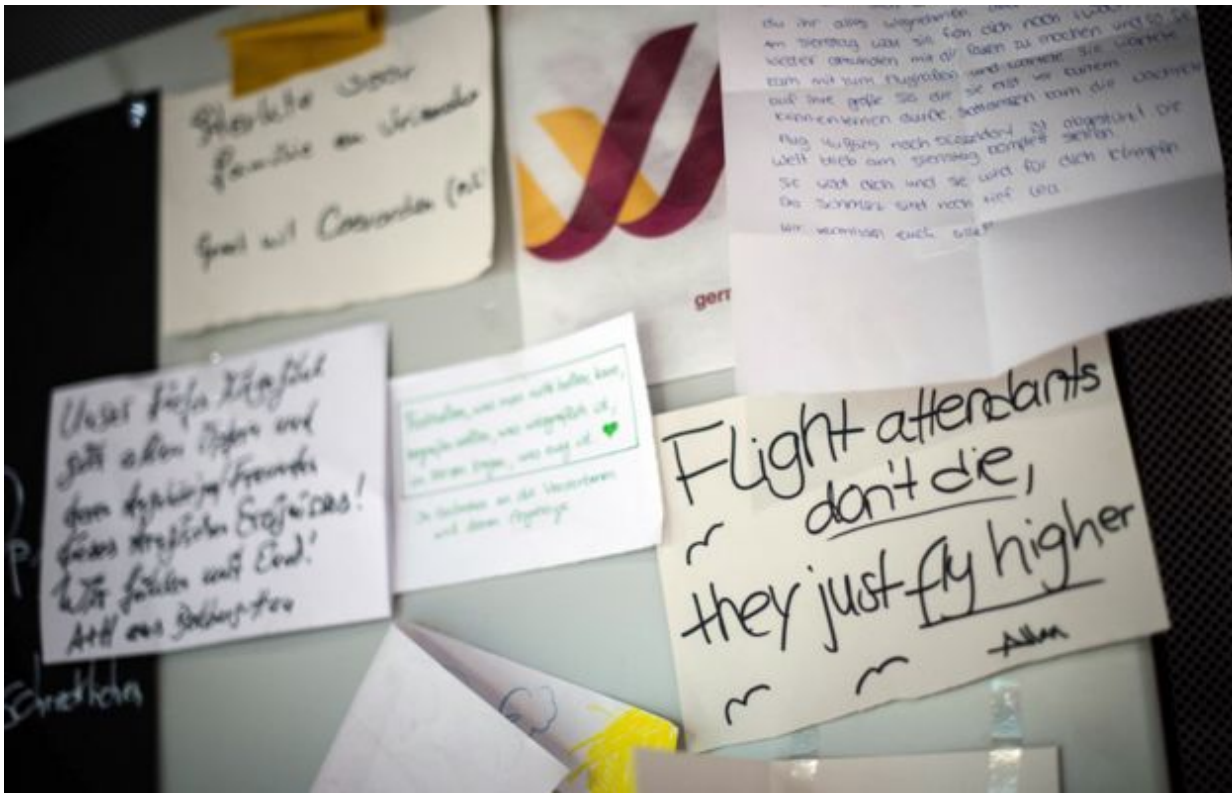


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The European Aviation Safety Agency now recommends that "airlines should ensure that at least two crew, including at least one qualified pilot, are in the cockpit at all times of the flight or implement other equivalent mitigating measures". It has just finished a survey of airlines, pilots and crew which aims to assess the effectiveness of this policy and hopes to publish the results within a month.

However, having two people in the cockpit is not a guarantee against pilot suicide. There have been a number of incidents where a plane has been crashed deliberately despite two pilots being present on the flight deck.

Royal Air Maroc Flight ATR-42, which crashed in the Atlas mountains in 1994, which was deliberately downed by the pilot, resulting in 44 deaths. Twelve years before that a Japan Airways Flight 350 crashed after pilot Seiji Katagiri steered the plane into the sea 510m short of the runway in Tokyo. Despite the efforts of the co-pilot to pull on the control column Katagiri "was pushing forward on the control column with both hands".

"Just because you've got two people, it doesn't mean that you've got a secure cockpit especially if someone is suicidal, or worse, a terrorist," says Philip Baum, the author of *Violence in the Skies: A History of Aircraft Hijacking and Bombing*.

While the Germanwings crash sparked instant policy changes, the same did not happen nearly 18 months earlier when a pilot deliberately brought down a Mozambican airliner in Namibia after the first officer had left the cockpit, killing all 33 people on board.

Overall, such events are rare. The Aviation Safety Network lists just 14 commercial aircraft accidents and incidents intentionally caused by pilots, including Germanwings.

The post-9/11 changes



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- After 9/11 cockpit doors were made stronger to prevent terrorists gaining access
- Locking system means that the door cannot be entered unless the pilot inside allows someone to enter
- A touchpad will allow cabin crew who know the code to enter if the pilot is incapacitated
- Pilot in cockpit can deny entry even if someone enters touchpad code

How are cockpit doors locked?

Not everybody agrees with the changes. The two-person policy is a "knee-jerk response" and "highly irresponsible", argues Baum. Firstly, to make security sense, flight attendants must be just as stringently screened as pilots.

The solution is potentially imperfect for another reason. There is an unwritten industry rule, according to Baum, which stipulates that the flight deck door is never open for more than three seconds, which prevents potential terrorists from bursting in and taking control.

If the door must be open for the attendant to enter and the pilot to exit there may be several seconds of potential vulnerability.

The Israeli airline El Al effectively has a toilet within the secure part of the cockpit. The pilot never needs to put himself on the other side of a locked door. "For some reason it hasn't curried favour with the industry even though they're a very cheap solution to install," Baum adds.



Image copyrightGetty Images

Image captionNew security features were introduced after 9/11, including reinforced cockpit doors. Here, an anti-ballistic cockpit door is demonstrated in late 2001

Many airlines used to have a third seat in the cockpit, to cater for flight engineers. The demise of this role has led to this current situation, says Norman Shanks, a lecturer in aviation security at Coventry University.

"This problem has really arisen from economics, reducing the number of people in the cockpit from three to two. We as passengers want the cheapest cost we can get so we're all guilty in that respect."

Another option would be to remotely control the door from the ground, although concerns about the technology itself and the threat from cyber-terrorists has prevented the suggestion being taken seriously.

For some, prevention boils down to stopping mentally unstable pilots from being at the controls in the first place. Last week, French investigators called for medical confidentiality to be relaxed for pilots to prevent a repeat of Germanwings, something Baum also advocates.

"It is absolutely frightening that there were so many indicators there and that the medical personnel Mr Lubitz spoke to and knew did not pass that information on. If somebody is going to pose a threat to themselves, or more importantly is going to endanger others, the medical profession has a duty to notify people."

Ultimately, the industry has decided the threat from outside is greater than threat from within.

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