



# Pilot intended crashes: What can be done?



# Previous intentional crashes

Preliminary report, Accident G-AIPX, Airbus A320-211, Prads-Haute-Bléone, France

<http://www.bea.aero/docspa/2015/d-px150324.en/pdf/d-px150324.en.pdf>



# 29/11/2013, ERJ 190, LAM, Namibia – 33 fatalities

The aeroplane was in cruise at flight level FL380 when the co-pilot left the cockpit to go to the toilet, leaving the Captain alone. On three occasions, different altitudes were selected to order a descent to the ground with autopilot. The CVR showed several aural warnings, as well as noises of repeated knocking and calls, corresponding to attempts to get into the cockpit.



# 31/10/1999, B767 EgyptAir, North Atlantic Ocean – 217 fatalities

The aeroplane was in cruise at flight level FL330 with a flight crew consisting of a Captain, a duty co-pilot and a relief co-pilot. The duty copilot left the cockpit, and the relief co-pilot took his place in the right seat. Eight minutes later, the Captain left the cockpit in turn, leaving the relief co-pilot alone. The autopilot was then disengaged and nose-down inputs were recorded on the FDR. The aeroplane descended. The engines were shut down. The Captain returned to the cockpit and tried to take back control of the aeroplane. The Captain repeatedly asked the co-pilot to help him to pitch up the aeroplane (“pull with me”) but the latter continued to command the elevator to pitch nose down. The aeroplane regained altitude before descending again. It collided with the surface of the ocean. The reasons that led the co-pilot to take these actions could not be determined.



# 11/10/1999, ATR-42, Air Botswana, Botswana – 1 fatality

The pilot, the only person on board, deliberately flew the aeroplane into the ground by crashing at Gaborone airport. The validity of his licence had been revoked for medical reasons.



# 19/12/1997, B737, Silk Air, Indonesia – 104 fatalities

While the aircraft was in cruise at 35,000 ft, the flight recorders stopped recording one after the other. The aeroplane suddenly started to descend. No Mayday message was transmitted before or during the descent. The aircraft crashed into a river. The safety investigation was not able to identify any technical problem that would make it possible to explain the accident.



# 21/08/1994, ATR 42, Royal Air Maroc, Morocco – 44 fatalities

The Captain disengaged the autopilot and deliberately directed the aircraft towards the ground. The co-pilot was in the cockpit but was not able to counter the Captain's actions.



# 09/02/1982, DC-8, Japan Airlines Japan - 24 fatalities

After having disengaged the autopilot on final approach at a height of 164 ft, the pilot pushed the control column forward and set the thrust levers on idle. He then moved the thrust levers of engines 2 and 3 to the reverse idle position. While the aircraft's attitude decreased, the co-pilot tried to pull on the control column. The co-pilot was unable to raise the nose of the aeroplane because the Captain was pushing forward on the control column with both hands. The aircraft crashed into the sea 510 m short of the runway. The investigation showed that the pilot's actions resulted from a mental problem. He was suffering from schizophrenia.



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# Germanwings accident



# Preliminary Report – Published May 2015

Accident on 24 March 2015 at Prads-Haute-Bléone (Alpes-de-Haute-Provence, France) to the Airbus A320-211 registered D-AIPX operated by Germanwings



# Medically related findings

- 5 November 2008 he (the co-pilot) suspended his training for medical reasons;
- An episode of depression and the taking of medication to treat it delayed the renewal of the copilot's class 1 medical certificate between April and July 2009. ^
- From July 2009, the co-pilot's medical certificate was endorsed with the note "Note the special conditions/restrictions of the waiver FRA 091/09 -REV-". His pilot's licence had been endorsed with the note "\*\*\*SIC\*\*incl. PPL\*\*\*"
- Last Class 1 medical issued 28 July 2014, valid until 14 August 2015



## Note-from other sources

- Co-pilot had been treated for depression in 2009 and later assessed as fit (correct procedures followed)
- Not known if co-pilot was suffering from a mental illness at time of accident in March 2015 (although he had apparently been issued with a sick note and was “he had seen an eye doctor and a neuropsychologist, both of whom deemed him unfit to work recently”)



# Questions

- Different medical examination procedure?
- Written/computer based psychological screening tests?
- Different flight deck procedures?
- Mandatory reporting procedures to the CAA by GPs/consultants?