

Review Article

Suicides by Pilots: An Insight

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Abstract: Suicides by pilots are one of the most fatal incidents that affect the aviation industry, there can be many underlying causes for such occurrences. This paper will explore eight infamous pilot suicide cases. Suicide by pilots is suspected as being a possible cause of the crashes of several commercial flights throughout aviation history. Generally, it is difficult for air crash investigators to determine what the motives of the pilots are, since they sometimes act deliberately to turn off recording devices or try to hinder future investigations. Therefore, suicides caused by pilots are quite difficult to prove. This paper analyses eight infamous pilot suicide cases, brings about various causes that can be reasons for pilot suicides and also gives suggestions and recommendations for preventing such tragedies.

Keywords: Pilots, suicides, air crash, cases, investigators, aviation industry.

INTRODUCTION

Accidents are not uncommon in the aviation industry, but when done with intention, it is saddening to see the aftermath of such incidents. Suicide the age-old term is used when a person takes his/her own life. Suicides by pilots is not a new topic, although not much has been read and spoken about this issue. Year to year, history has seen such subsequent fatal incidents. In this paper you will see eight infamous cases, caused by pilot suicide.

The following are some of the infamous incidents caused by the Suicidal intentions of pilots:

Germanwings Flight 9525

The most infamous pilot suicide in aviation history of Germanwings Flight 9525 that crashed into the French Alps on March 24, 2015. This led the air crash Investigators to quickly determine that Germanwings flight 9525, which was intentionally flown into a mountain range by co-pilot *Andreas Lubitz*. In total, 150 passengers and crew died in the crash (Slater. 2016). A few minutes after take-off and making final contact with air traffic control at 9:30 AM, the pilot (captain) left the cockpit for the purpose of using the lavatory. At this point, the aircraft was flying at an altitude of 38,000 ft. *Lubitz* then locked himself in the cockpit and changed various functions in the cockpit, so that the captain could not enter the cockpit, and also to

disconnect communication with the air traffic controllers. The BEA (Le Bureau d'Enquêtes et d'Analyses pour la Sécurité de l'Aviation) report indicated that Prior to the incident, a medical note was found and it indicated that Co-pilot *Lubitz* was declared unfit for flying and that he had previous record of Suicidal tendencies and being diagnosed with Psychosomatic Illness. As per past records, prior to his training as a commercial pilot *Lubitz* was denied the US pilot's license because of treatments for depression (Germanwings Flight 4U9525: 2015). The final BEA report concluded that *Lubitz* had symptoms of psychotic depression. For nearly five years, *Lubitz* had frequent unnatural sleep cycles, because he believed that he possessed possible vision problems, so after consultation of over close to 40 doctors in the state, *Lubitz* feared that he was going blind (Keaton, J. 2015). These factors motivated him to crash the aircraft and also along with it take away the lives of innocent passengers and crew.

LAM Mozambique Airlines Flight 470

LAM flight 470, was en-route from Maputo International Airport to Quatro de Fevereiro Airport in Luanda, Angola. It's Captain *Herminio dos Santos Fernandes* altered the plane's autopilot in order to steer the aircraft directly into the swamps of Namibia's Bwabwata National Park. Similarly, like most pilot

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suicides, *Fernandes* had locked himself inside the cockpit in order to crash the aircraft without resistance by anyone else. The plane finally crashed after a speed drop from 38,000 ft. As per the reports by Mozambican Civil Aviation Institute (LACM) there were no survivors and that all 33 people on board were killed. While LAM is not a well-regarded airline and is in fact banned from flying in Europe, the crash of Flight 470 was the airline's first major crash since the 1970s (Caldeira, A. D. 2014). To this day, *Fernandes's* motivations have never been made clear. At best, people have been left to conjecture that the pilot was suffering from domestic issues and resultant depression.

Piper Dakota crash 2010

This suicide occurred on February 18, 2010, when *Andrew Joseph Stack III*, deliberately crashed his single-engine Piper Dakota light aircraft into one of the Buildings of the Echelon office complex in Austin, Texas, United States. This tragic event caused himself to die along with killing an Internal Revenue Service manager named *Vernon Hunter* apart from them, thirteen other workers in the building at that time were injured, two severely. The four-story office building which the aircraft crashed into, housed an IRS field office occupying the top three floors, along with a couple of private businesses on the first floor (Novak, S. February 18, 2010). Prior to the crash, Stack had posted a suicide note expressing his disillusionment with the government and corporations such as the IRS to his business website.

EgyptAir Flight 990

Like any other normal flight, EgyptAir 990 was scheduled for a regular departure from Los Angeles International Airport in the United States to Cairo International Airport in Egypt, with a stop at John F. Kennedy International Airport in New York City. Flight 990 was a Boeing 767 and it consisted of 217 passengers and crew. This aircraft crashed into the depths of the Atlantic Ocean about 60 miles (100 km) south of Nantucket Island, Massachusetts, killing all 217 passengers and crew on board (National Transportation Safety Board. 2002). The alarming incident was investigated by NTSB (National Transportation and safety board), and was later declared that it was not accidental in fact it was intentional. NTSB and the relief first officer *Gamil al-Batouti*, who was on duty that day, was the main reason behind this tragedy. Also, on analysing the cockpit voice recorder (CVR), it came to clear notice that the 59-year-old relief First Officer *Gameel Al-Batouti*, was suicidal and that he had purposefully crashed the aircraft into the Atlantic ocean.

SilkAir Flight 185

The crash of SilkAir Boeing 737 on December 19, 1997, shocked many air crash experts. The aircraft was flying in good and clear weather. It gently cruised 35,000 ft above Jakarta's Soekarno-Hatta International

Airport en route to Singapore's Changi Airport. Then, without warning, the plane nosedived at supersonic speed into the Musi River in the Indonesian city of Palembang, all 104 people onboard died (Job, Macarthur. 2008). The fact that the plane was brand new and was owned and operated by an airline company with a reputation for safety and high maintenance only added to the mystery. The accident was investigated by the Indonesian NTSC, which was assisted by expert groups from the US, Singapore, and Australia.

Around 73% of the wreckage (by weight) was recovered, partially reconstructed, and examined. Both of the aircraft recorders, the CVR (cockpit voice recorder) and FDR (flight data recorder) were retrieved from the river and their data were extracted and analysed.

However, when investigators began probing the evidence, they discovered that at 4:05 PM, *Captain Tsu Way Ming* left the cockpit and went to the passenger cabin for a drink of water. The plane was then left in the hands of co-pilot *Duncan Ward*. Within seconds, the plane's recorder died. At 4:11 PM, some six minutes after the cockpit voice recorder stopped working, the automatic flight-data recorder also stopped working. Although an official Indonesian report claimed that the crash was an accident, US investigators and the NTSB asserted that *Ming* deliberately disconnected the integral equipment in the cockpit and did nothing to stop the plane's rapid descent.

Japan Airlines Flight 350

35-year-old Captain *Seiji Katagiri* came very close causing an even greater disaster in aviation history. The pilot, who had a history of mental illness, including indications of possible psychosis or sociopathy, deliberately crashed his plane. Co-pilot *Yoshifumi Ishikawa* and flight engineer *Yoshimi Ozaki* fought *Katagiri* to regain control of the plane and stop it from nose-diving but failed to do so. Ultimately, the plane crashed into Tokyo Bay, killing 24 of the plane's 166 occupants. Amazingly, although airline doctors had once found *Katagiri* fit for duty, he was declared not guilty by reason of insanity during his trial, he was apparently suffering from paranoid schizophrenia (Chen, P. Y. 1983). After spending several years in a mental hospital and under strict mental care monitoring, *Katagiri* lives today with his wife in a house within sight of Mount Fuji.

Factors that contribute to suicide or suicidal thoughts are:

Mayo Clinic classifies the followings are causes or factors that may cause suicidal tendencies in people (Mayoclinic.org. 2018)-

- a. **Clinical depression** - this condition is a mental health disorder characterised by a persistently

- depressed mood or loss of interest in activities, causing significant impairment in daily life. It may include changes in sleep, appetite, energy level, concentration, daily behaviour or self-esteem.
- b. **Psychopathological Disorders** - Apart from depression other disorders such as Schizophrenia, Sociopathy, Psychopathy and Personality Disorders can be one of the reasons for pilot suicides
 - c. **Family and Relationship Issues** - Problems like the status of marriage, sexual relations, conflicts with spouse and children, divorce and other such issues can be one of the causes of suicide.
 - d. **Abuse** - Sometimes abuse in any form can be a key factor for suicidal thoughts to develop.
 - e. **Financial issues** - In some cases, financial issues like debts and poverty or another financial problem can also result in suicidal thoughts.
 - f. **Genetics** - In rare cases, there also may be a genetic link to suicide. People who commit suicide or who have suicidal thoughts or behaviour are more likely to have a family history of suicide.

Preventive measures/suggestions that can be taken to avoid pilot suicides:

- a. **Usage of proper Psychometric testing** - Usage of good psychometric tests are very important as they can assess various dimensions of a person's psychological state.
- b. **Maintenance of Records of pilots** - It is very essential for the concerned airline company to maintain behavioural and performance records of all pilots, this will help to identify the main cause of the problems when they arise.
- c. **Hiring a Human Factors Specialist** - All airlines companies must and should have a well-established human factors department with aviation psychologists. These psychologists will regularly monitor crew performance and also conduct tests and train pilots on various aspects.

- d. **Pilot Counselling** - Regular counselling and therapy sessions must be provided for recruited airline pilots. This will help them during their personal troubles.
- e. **Strict Psychological Checks** - Along with regular medical check-ups, there must be incorporation of psychological checks for all pilots and this must be conducted properly.

CONCLUSION

This paper gives a clear insight into the tragic atrocities of various suicide cases in aviation history. On analysing we can understand that, Social, cultural, and occupational aspects, individual psychological factors, and contributory and explanatory factors all contribute to suicides. All these factors should be considered in investigations in suicides in general and aviation-related ones in particular. Air Crash Investigators must have a low threshold for getting specialists involved in a suspicious aviation death. Such investigations will lay sounder foundations for the identification of the most appropriate and effective prevention strategies for addressing stress levels of particular pilot groups for the settings, opportunities, and mitigation that lead to aviation-related suicide (Vuorio, A. *et al.*, 2014).

External data collection and the frequency of medicolegal autopsies vary among different countries, and perhaps even within countries, depending on regional or state/ province practices and among individual investigators. Data on pilot suicide, therefore, are variable. Establishing a minimum standard of reporting in investigations will enable better estimates of the frequency of pilot suicide and, with better information, there is the opportunity to develop and support preventative programs.

A table representing the Timeline of incidents for the presented cases in this paper:

Year	Airline	Total fatalities	Place of Crash
2015	Germanwings	150	French Alps
2013	LAM Mozambique	33	Namibia
2010	Piper Dakota	2	Texas
1999	Egypt Air	217	Atlantic Ocean
1997	Silk Air	104	Palembang
1994	Royal Air Maroc	44	Morocco
1982	Japan Airlines	24	Tokyo
Total		524	

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