

Avianca flight 52: a case study on human error

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Relevant facts/ Background Avianca Flight 52 touched the ground for a final time on January 25 1990, 16 miles from JFK airport in Cove Neck, Long Island, N. Y. , completely out of fuel. The Boeing 707-321B was carrying 158 people coming from Medellin, Columbia, in which 85 people survived. The crash of Avianca Flight 52 was the largest rescue operation in New York prior to 9/11. There was a severe blizzard on the north-east coast of the U. S. causing bad weather with a low pressure system and wind shear.

JFK airport authorities had been told to keep a higher landing rate than safe at 33 planes attempting to land per hour, on one runway - the typical rate being 52 in good weather, with all runways open. The airport was experiencing a rate of 27% missed approaches, with 39 planes waiting in holding patterns for clearance to land and dozens waiting to take-off. Sequence of events The 707 had been placed in holding patterns for a total of 1 hour and 17 minutes during three separate occasions over the U. S. east coast.

There were 6 different air traffic controllers that had communicated directions to Flight 52 after they entered U. S. airspace, adding confusion and un-transmitted messages, yet at the same time not providing any more crucial information such as weather conditions. The Flight Engineer failed to communicate the urgency of the low fuel situation to the pilot and co-pilot after they passed the point of no return and had to remain committed to JFK -by not having enough fuel to get to their alternate airport at Boston, 342km away from JFK.

He also failed to emphasize the importance of landing in their first attempt because they would not have enough fuel to loop around and try again.

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Another discrepancy was how the co-pilot used the words “ Low Fuel” and “ Priority” rather than “ MAYDAY” and “ Minimum Fuel” while communicating to ATCs. There was a lot of crucial information left out or misinterpreted and not so important information repeated, which could have easily been avoided without the language barriers in place.

In terms of the Swiss Cheese model there were many holes in the conversations between ATCs and the flight crew, similarly between the flight crew and passengers, where they weren't even given a warning. Causes and factors During the chase to point the blame on someone, Avianca stated to investigators that the phraseology used by their pilots was correct as per their training -whether it matched the standard English phraseology used by IATA countries or not they were only following what they thought to be proper protocol.

Investigation by the NTSB found many holes in the events leading up to the crash, due to both active and latent failures by the crew, ATCs, and airport management. The leading causes can be attributed to airport mismanagement, inconsistent training for pilots that should have English proficiency, and overall poor communication between ATCs and the flight crew. Repetitive flaws in a system run by human beings shows a clear link in the lack of Risk Management, causing communication gaps referred to as holes in the Swiss Cheese model for human error.

CRM stipulates training crew in assertiveness, inter-personal communication, leadership and decision-making, to name a few key attributes these pilots were in need of addressing prior to the incident. There was no problem of experience as both the pilot and co-pilot had flown that route before, and the <https://assignbuster.com/avianca-flight-52-a-case-study-on-human-error/>

pilot had 27 years of experience flying for Avianca. The implementation of Crew Resource Management techniques in the previous years must not have been as streamlined as intended, at least not for the American ATCs and those training under Avianca in Columbia.

If one lesson would be learned from this it would be that had the crew received effective and efficient CRM training on time, they could have saved 73 people from an almost completely preventable death by human error. References AskCaptainLim. com {comments}. Aviation, Air Crash. Avianca flight 52: why the pilots failed to use proper phraseology. (Last updated October 19, 2008). Retrieved from: [http://www. askcaptainlim. com/-air-crash-aviation-34/830-avianca-flight-52-why-the-pilots-failed-to-use-the-proper-phraseology. html](http://www.askcaptainlim.com/-air-crash-aviation-34/830-avianca-flight-52-why-the-pilots-failed-to-use-the-proper-phraseology.html) Cushman Jr. , John H.

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