## Flying ashtray

**Engineering**, Aviation



First officer Rob Brydon left his home in south Essex to go to work at Heathrow. He was on the M25 when he heard a news bulletin on the radio informing him that said that mount fujmore had erupted 32km south of the Indian island. It was early when Rob arrived at the airport and entered the pilots lounge and prepared for his flight. Rob and his captain realised that his route would take him over the path of the ash erupted from Mount fujmore. They came to the conclusion that the ash would clear by the time they were near the mountain.

As Rob walked into the gate he was worried that his decision would come back to bite him, but the captain assured him that in the 30 years of service he had flew in the same situation numerous amounts of time and that it would be fine. Rob and his captain were now on board the plane and had begun their pre-flight checks and were ready for clearance. As usual Rob was asking for clearance. Rob was unusually busy and didn't have time for this ands his look of the passengers, but he figured that he would take a look once he was cruising in the air.

Before Rob knew it he was at cruise level and was eating breakfast, as a precaution just in case they were in a collision course with the volcanic ash. Soon after Rob had forgotten about the volcanic ash but what he didn't know was going to make his day much harder. As Rob crossed through the ash his whether monitor didn't pick it up because it was dry and could not see it because his blinds were down. The passengers saw the ash but informed the pilot but they discussed it and they said it was harmless. But then the planes started to have problems.

The fuel indicators started to flash about low fuel and low fuel pressure. The auto pilot changed courses then changed back. They looked at their systems to see where they were and discovered they were near India. The plane stopped having problems until they noticed their engines were glowing red hot with some of the volcanic ash. They began to panic but soon they were on air traffic control asking for a clear landing spot, but there were east of the Indian Ocean and with no viable runway to land on. The closest one was in Thailand which was hours away from them.

They began to start to calculate the damage that could be done to the plane when engine 3 shut down completely and they began to get warnings of low fuel and the filtration system was damaged by the volcanic ash. They then got transmissions and sent out warnings that problems could occur if you followed their flight path. All of a sudden over their radio they got the radio transmission they should have had before take-off. That the ash was dry which would explain why it didn't come up on the radar. They the had engine 2 shut down and had to descend to prevent them from stalling in mid air.

They also decided that they should take their flight path out of the volcanic ash. They tried to change their course but all the ash had damaged the planes computer chips, they decided to ask tower what they should do. All of a sudden engine 3 went out and their navigation system went out so they had to rely on a rough idea of where they were. They were now 16, 200ft above ocean level and it couldn't escape the crew's mind of abandonment of the plane in the ocean. Though it had never been done before on this model of aircraft the pilots knew that it was possible.

Not long later the last engine went out and their fears of abandonment became a reality. But they had bigger problems on their mind such as how to control the plane, hen there is no power being generated. They decided to try to start the engines again but nothing happened. They tried to restart the engines 3 more times and all of a sudden engine 3 came on and quickly shut down again. At this point they were 10, 000ft exactly about sea level and were assessing their problems when they came to an agreement to start the engines one more time before they seriously considered abandonment.

They tried and waited. They waited more and engine 3 came to life and was immediately put on full power and they decreased their descent rate and started to restart the other engines, but only engine 2 came on and they levelled of their altitude and started to ask ATC where to land but it wasn't easy as there was heavy fog and ice in the area they wanted land in. They had permission granted and they were allowed to land at a nearby airport. As they started to line up with the airport they had to rely on the towers navigation system until they could see the runway lights.

The task that was ahead of them was extremely big as they had only done thus in simulators. 19 miles away from the airport and 3, 500 ft above the ground they had the correct configuration and all they needed was more power but the ash had clogged the engine intakes so that only a certain amount of power could be used at any one time. They started to sink too low and desperately needed power so for a short period the engines power was increased, but then they were overwhelmed and went red-hot. As they

approached the runway they could make out the light of another plane coming onto the.

They quickly contacted tower but the declined saying they had no report of a plane on the runway but they checked their navigation system and they were wrong. The captain quickly informed tower that they would be landing whether or not that plane was on the runway. They knew it was going to be a tight landing as they came closer and closer to the runway. The plane was now crossing the threshold. The point of no return and they narrowly missed the tail fin of the plane but they landed and swiftly evacuated.