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Arrow Air: Canada’s Deadliest Plane Crash (Duration 16:30)
More than 30 years ago, Arrow Air Flight 1285 crashed in Gander, Newfoundland shortly after take-off. The plane was carrying U.S. troops home from duty in the Middle East to their base in Kentucky. The plane came down shortly after take-off, killing all 248 people on board. It remains Canada’s worst aviation disaster, yet no one agrees on how it happened.

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Packaging Producer: Marie-Hélène Savard
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ARROW AIR: Canada’s Deadliest Plane Crash

VIDEO REVIEW

Before Viewing

The worst year in Canadian aviation history occurred in 1985. In June, 268 Canadians were among the 329 people killed when a terrorist bomb brought down Air India Flight 182 off the coast of Ireland. In December, Arrow Air Flight 1285 crashed a little over a minute after takeoff in Gander, Newfoundland, killing 248 U.S. soldiers and eight crew members. Though the official investigation concluded that ice on the wings contributed to the crash, some aviation experts maintain that the plane may have come down due to a catastrophic event, like an explosion, possibly from a bomb in the cargo hold.

1. How do you think airport security changed after 1985?

2. What is airport security like today? Are current security measures too extreme or not extreme enough?

Viewing

1. How many people died when Arrow Air Flight 1285 crashed near Gander Newfoundland?
   - □ a) 236
   - □ b) 243
   - □ c) 248
   - □ d) 256

2. Where had the “Screaming Eagles” been serving prior to their arrival in Gander?

3. What news did Marilou Carter expect to hear from her son Mark once he got home? What did she think he had planned for Christmas Eve?
4. According to air traffic controller Glen Blanford, what happened to Arrow Air Flight 1285 as it left the runway?

5. a) Who took responsibility for bringing the plane down?

b) Why was this claim rejected by Canadian and U.S. officials?

c) According to the first investigators on the scene, what caused the plane to crash?

d) Why does former Canadian Aviation Safety Board (CASB) investigator Les Filotas challenge the original theory behind the crash?

6. What did eye witnesses claim they saw that challenges the “ice on the wings” theory?

7. What other air disaster happened in 1985?

8. What other suspicious coincidences raised the alarm bells regarding what brought down the Arrow Air plane?

9. Why were suspected terrorist connections to the crash quickly dismissed?
10. Why do Marilou and Leroy Carter, as well as former CASB investigator Les Filotas, believe the true cause of the crash was covered up?

11. What kind of pressure did Les Filotas receive to sign off on the official version of events?

12. What support did Filotas receive from his colleagues that flew in the face of the official CASB version of events?

13. Why was air traffic controller Reg Sherren thankful that he made the decision to switch Arrow Air Flight 1285’s runway that fateful morning?

After Viewing

Part 1
In 2014, over 700 passengers and flight crew members lost their lives in plane crashes, leading some people to ask whether it was the deadliest year in aviation history. Two Malaysia Air flights accounted for over 500 of those deaths — Malaysia Air Flight 370 disappeared and is believed to have crashed in the Indian Ocean and Flight 17 was shot down flying over a volatile area in the Ukraine.

1. Do these tragic statistics make you concerned about flying? Why or why not?

2. Do you think it was the worst year on record? This calls on you to speculate on an answer.

Part 2
Flight statistics gathered by the Aviation Safety Network (ASN) indicate that it is currently very safe to fly (despite a bad year in 2014). Analysing data from 1946 to 2015, the ASN has been able to illustrate that, in fact, the riskiest period in aviation history occurred between 1961 and 1997, with the worst death tolls occurring in 1972 (2,429) and 1985 (2,331). Also, the ten worst years in aviation history occurred during this time period. Since 1997, aviation technology has improved and more flights are taking to the
skies. Meanwhile, the number of deadly aviation accidents has remained relatively low, with an average of around 600 deaths per year.

1. What can we learn from the ASN statistics?

2. If plane crashes account for only 600 deaths per year, and 30 million flights occur around the world annually, do you feel safe when it comes to air flight?

Followup
a. Go to the Aviation Safety Network website: aviation-safety.net
b. Click on the Statistics tab.
c. Examine one of the Statistics graphics. What does the graphic teach you? Share your discoveries with a classmate.
THE STORY

Minds On

The philosophical principle known as Occam’s razor can be explained in this way: if two competing explanations are presented, the simplest one is probably correct. Keep this idea in mind as you read the story of Arrow Air Flight 1285.

One tragic morning

It was the final leg of a long journey home to Fort Campbell, Kentucky. Returning from a peacekeeping mission in Cairo, Egypt, 248 U.S. soldiers from the 101st Airborne Division were heading home for Christmas. They had left Cairo the previous day, stopped in Cologne, Germany, to pick up some cargo and made a final stop in Gander, Newfoundland, to refuel before a scheduled arrival at home in Kentucky. They never made it. The Arrow Air DC-8 took off and lost altitude quickly — crashing just short of Gander Lake, killing all 248 soldiers and eight crew members on board. To date, it remains the single worst aviation disaster on Canadian soil and the deadliest aviation crash involving U.S. service personnel.

Arrow Air was a charter airline under contract to transport U.S. military personnel from conflict areas. After the crash of Flight 1285, the mediocre safety record of the airline became public. Arrow Air filed for bankruptcy protection in 1986 but managed to keep alive as a business (with great difficulty) until 2010.

The investigation

Investigators from the Canadian Aviation Safety Board (CASB) arrived on the scene almost immediately. They combed through the wreckage and started to piece together what happened to the doomed flight. There were two significant obstacles impeding their investigation. First, the crash was devastating. After briefly taking flight, the plane lost altitude, clipped some tall trees and then plummeted into the earth — igniting the jet fuel that had just been pumped into the aircraft for the flight to Kentucky. This rendered the crash scene an incinerated wasteland with a smattering of widely scattered debris. Second, the aircraft’s black boxes were not much help in explaining the crash. The investigators had no idea what was said in the cockpit prior to the crash because the plane’s voice recorder was defective and the data recorder was an archaic piece of equipment that provided almost no information.

The majority opinion

However, after a fairly comprehensive investigation, the CASB concluded that the Arrow Air flight came down as a result of ice on the wings and fuselage as well as a miscalculation of the weight of the plane. First, the ice argument: investigators believe that freezing rain accumulated on the wings and fuselage during the 50 minute stopover in Gander, making the plane heavier, and impeding the proper functioning of the wing flaps. Second, the weight argument: the weight of the ice added to an already heavy load — 248 men and a full cargo-hold. The CASB believes the flight engineer miscalculated the weight of the plane because his calculation would not have accounted for the fact that the aircraft was carrying hundreds of soldiers and their gear (probably averaging around 220 pounds per passenger) as opposed to a standard commercial flight that calculated weight based on the average weight of men, women and children and their luggage (usually in the neighbourhood of 180 pounds per passenger).
CASB believes that this miscalculation was probably based on the fact that Arrow Air was a commercial charter operating under contract with the U.S. military. This would explain why the flight engineer would have used a commercial flight weight calculation. In the end, the CASB believes that the combination of the weight of the soldiers, their cargo, and the thin layer of ice on the wings and fuselage contributed to the planes inability to gain and maintain altitude and ultimately caused the plane to crash just 70 seconds after take-off.

The “dissenting” opinion
Not everyone from the CASB was in agreement with the final report. Almost half of the board members issued a minority report indicating their “dissenting” opinion. According to the dissenters, at best the freezing rain left only a trace amount of ice on the aircraft — certainly not enough to bring the plane down. In fact, according to Gander ground crew, there was no discernable ice on the wings that morning. The authors of the minority report also said that witnesses travelling on the Trans-Canada Highway looked up to see an orange glow coming out of the bottom of the plane as it flew out of Gander airport. Shortly thereafter, the plane clipped the trees, plunged into the ground, and erupted in flames. Based on these two observations, the CASB dissenters concluded that the aircraft was brought down by a catastrophic event — like a fire or a bomb.

The bomb theory gained some traction after it was learned that the extremist group Islamic Jihad laid claim to downing the aircraft in the immediate aftermath of the crash. Authorities said the terror group was simply trying to capitalize on the tragedy. However, those suspecting an on board disaster say the claim was not properly investigated. They also note that security at Cairo airport in Egypt, where the flight originated, was notoriously poor and that a bomb could have been easily placed aboard the aircraft. While the CASB dissenters were not willing to conclude that a bomb brought the plane down, they did formally line up against the majority opinion in their minority report.

The mystery continues
With dissention in the CASB and an overall mystery lingering over the plane crash, a rash of theories began to emerge. Some claimed the U.S. wanted to cover up the crash because, if the plane was brought down by a bomb, intelligence agencies had completely missed a terrorist threat. Those who support this belief cite the fact that the FBI surrendered the entire investigation to the CASB and that authorities bulldozed the crash site before an extensive study of the entire area could be completed.

In the end, no one really agrees on what brought down Arrow Air Flight 1285. However, the report prepared by the CASB remains the official explanation. It is either a classic case of Occam’s razor (where the simplest explanation is probably the correct one) or a massive cover up that has foiled aviation historians for over 30 years.

To Consider
1. What obstacles hindered the Arrow Air investigation?
2. What was the official verdict delivered by the majority of the CASB?
3. Why did some CASB members disagree with this position?
4. If you were applying the principle of Occam’s razor to the Arrow Air case, which explanation is probably the correct one?
5. Which explanation do you believe: the majority or the minority opinion?
THE BRIEF LIFE AND EARLY DEATH OF THE CASB

The Canadian Aviation Safety Board (CASB) was established in 1984 only to die an early death in 1990. The dissolution of the CASB was accredited to divisiveness among board members and an inability to reach consensus on aviation safety in Canada. The organization was replaced by the Transportation Safety Board of Canada, an agency with a more broad-based mandate looking at more than just aviation safety.

The CASB encountered some significant challenges right off the bat. In June 1985, two Canadian Pacific (CP) planes took to the skies with bombs planted on board by terrorists. The first bomb exploded at Narita airport in Japan, killing two baggage handlers. The second bomb exploded off the coast of Ireland, killing all 329 people on board. The first bomb was detonated by timer while it was being moved from the CP plane onto an Air India plane. The second bomb went off 55 minutes later, bringing down Air India Flight 182. That bomb was transferred unwittingly by baggage handlers in Toronto from the CP plane onto the doomed Air India plane. While it was clear that a bomb exploded at Narita airport, suspicions of a bomb needed to be confirmed by the CASB, which they managed to do shortly after the plane went down.

This was an important investigation for the newly established CASB due to the high profile nature of the incident. The bombing of Air India Flight 182 was the worst mass murder in Canadian history and, prior to September 11, 2011, it was the worst terrorist attack in history. It was also the 5th worst aviation disaster in history and the plot was hatched and executed on Canadian soil. While it is clear that the bombing was orchestrated by a criminal conspiracy seeking to hurt the government of India and their assets, only one person has been convicted of being a part of the conspiracy. Tragically, 268 Canadians died in the crash.

The consensus opinion from the Air India crash quickly disintegrated after the crash of Arrow Air Flight 1285 in Gander, Newfoundland, six months later. While the majority of CASB board members believe the plane crashed due to ice on the wings and fuselage and too much weight on board the flight, a vocal minority of members believe the flight went down after a catastrophic event — like a bombing or a fire — caused the plane to crash a little more than a minute after takeoff from Gander airport. The Arrow Air crash was the deadliest plane accident on Canadian soil, the 17th worst aviation disaster in history and the worst military aviation disaster in U.S. history.

The inability to reach consensus on the Arrow Air disaster established a climate among CASB members that led to a state of almost constant disagreement and infighting. In fact, the dissention grew so intense that the Canadian government decided to scrap the agency in 1990. In its place, the Transportation Safety Board of Canada was created to investigate transportation accidents in general and not just air crashes.

To consider

1. What happened to Air India Flight 182? What did the CASB determine caused the crash?

2. What role did dissention play in the collapse of the CASB and its eventual dissolution in 1990?
Followup

Conduct further research on the Air India tragedy. Go to curio.ca and click on the News in Review archive. Search: Air India. You should see the May 2005 News in Review called Bitter End: The Air India Trial Verdict.

**Guiding questions:** Why does the largest mass murder in Canadian history remain unsolved? Why wasn’t justice served? What role do you think race played in the case?