

## OnLine Case 16.2

# Air France, British Airways and the Concorde Disaster

To understand the impact of a major accident with Concorde a number of background factors must be remembered.

- Concorde became a symbol of pride for Britain and France.
- Technologically it was a triumph.
- People have always made efforts to see it, let alone wanted to fly in it.
- The project helped to cement Anglo-French relations when the UK was wanting to be seen to be European.
- It proved that two countries could work together and challenge American dominance of the aerospace industry. In this respect it was a forerunner to the Airbus consortium.
- The project ran late and was heavily over budget.
- The plane was barred from flying overland at supersonic speeds because of the noise factor.
- Only two airlines ever flew it – when it began both were nationalized. British Airways (BA) has since been privatized.
- The BA Concorde services paid their way operationally, but all of the development costs were absorbed by the British and French governments – in today's money some £9 billion was absorbed.
- The services were mainly London and Paris to New York, but there were some UK to West Indies flights and a wide range of charter opportunities.
- In 1999 BA earned £140 million in revenues and Air France £70 million from Concorde – BA's services were marginally profitable; Air France lost money.

The first crash of a Concorde plane happened on the last Tuesday of July 2000. The passengers on the Air France flight from Paris to New York were German tourists flying out to meet a cruise ship. The plane was seen to be on fire before it even left the ground at Charles de Gaulle airport, but once Concorde has reached a certain speed on the runway take-off cannot be aborted. Two minutes later it had crashed onto a hotel on the outskirts of Paris. Altogether 113 people, the bulk of them passengers and air crew, died. The whole sequence of events was filmed by two amateur video-makers and so the disaster was very high profile.

Immediate speculation blamed an engine fire. There are two engines slung under each wing and those on one side had been clearly on fire. Moreover, the flight had been delayed in Paris while one of these engines was repaired. However, the landing gear was still down: in the little time he had available the pilot had reported that the hydraulics had also failed. Why?

In the event it was to transpire that a rogue strip of metal on the runway had punctured a tyre, and then tyre debris had punctured a fuel tank incorporated in the wing. It later became apparent that the metal strip had probably been jettisoned from a Continental Airlines DC10 a few minutes earlier. The escaping fuel was ignited by the heat of the adjacent engines. The engines, and in turn the engineers who had repaired one of them, were not to blame. But, of course, the fact the fuel container could be punctured in the way it was was a huge concern.

### The Air France response

- The chairman went to the crash site immediately, signalling a personal involvement.
- All five remaining Concorde were grounded immediately, communicating that safety was the first priority.
- Later, the chairman attended a number of the family funerals and was available to talk to families of the victims.
- Air France provided free flights for relatives to and from Germany.

- Interim compensation payments were offered.

## **British Airways**

BA opted to keep its seven Concorde flying, although flights were suspended for the first 24 hours. This determination continued even when one had to make an emergency landing in Newfoundland after passengers complained that there was a smell of smoke in the cabin.

BA's pilots were happy about this – they had no fears for the aircraft's safety. Their representatives, together with retired pilots, were all happy to be interviewed by television reporters to confirm this view. Passengers were generally undeterred as well.

It transpired that in 24 years of flying there had been 70 previous incidents where tyres had burst, but never with catastrophic consequences. As a result of this BA had made certain modifications to the wheels which Air France had not copied. In addition, BA used new tyres (Air France used remoulds) which it changed regularly, after a fixed (and limited) number of take-offs or landings.

On 15 August, some three weeks after the crash, BA announced that it too was grounding its Concorde. This pre-empted the withdrawal of its Certificate of Air Worthiness by the Civil Aviation Authority (CAA) on 16 August. Air France commented that it was surprised that it had taken as long as it had.

Senior BA pilots demanded an immediate reprieve and suggested that it could be a ploy by France to end Concorde flights altogether because they were afraid of the cost of possible modifications that might be necessary.

## **The UK Civil Aviation Authority**

The CAA duly withdrew the Certificate of Air Worthiness, in reality a very rare event. The only time this had happened before as the result of a civil accident was when McDonnell Douglas DC10s were grounded temporarily in 1979. As shown in Minicase 14.1, this contributed to the failure of Laker Airways.

The CAA was asked why it had not acted earlier. The reply was that there had been speculation but no concrete evidence. Only now was the cause of the accident clear. The CAA emphasized its belief that Concorde remained a safe aircraft but that (as yet unspecified) modifications would be required. There was, however, a real concern that a tyre burst had been able to trigger the catastrophic chain of events that followed. Some commentators believed that the reluctance of Air France to restore Concorde services implied that there was an unacceptable risk with the plane.

## **Final Outcomes**

Ways to protect the fuel containers were devised – based on a kevlar protective lining - and modifications were made by British Airways. Concorde was allowed to fly again – and did. Services to New York were restored. But in the meantime 9/11 had happened, affecting demand for air transportation. And passengers had become more accustomed to (cheaper) first class travel in 'ordinary' aircraft. Transatlantic flights might take longer, but the new first class cabins had private sleeping areas and completely flat beds. One downside to Concorde was the relative lack of seating space – it was not a large aircraft. Ticket sales did not reach the levels enjoyed before the crash. BA decided that maintenance and other costs did not justify keeping Concorde in the air and its final flight was in October 2003. The remaining aircraft are grounded museum pieces.

**questions:** Regardless of the actual facts and motives, whose reputation do you think might be most enhanced (or at least protected) by its reaction and behaviour?

Did BA do the right thing in the circumstances or should it have reacted differently?

Did this disaster merely accelerate the inevitable? Had it not happened, would Concorde still be flying today?