

# Special Investigation into the *Helderberg* Crash

## ● INTRODUCTION

- 1 On 28 October 1987, the SAA *Helderberg*, a Boeing 747, crashed into the sea off the coast of Mauritius. All 159 people on board died. Almost immediately after the incident, allegations of foul play were made. A year later, in January 1989, the South African government established a commission of enquiry headed by Justice Cecil Margo to determine the cause of the crash.
- 2 The Margo Commission found that the crash was caused by a fire on board, but that the cause of the fire was undetermined. Many people rejected this finding, including investigative journalists who insisted that there were strong indications that the fire was caused by dangerous substances on board. Allegations were made that South African Airways (SAA) passenger flights were used to courier arms components and explosives in sanctions-busting activities by the parastatal Armscor.
- 3 Whilst no hard evidence was provided to back these claims, journalists continued to find circumstantial evidence to suggest that the *Helderberg* could have been carrying such dangerous substances, and that these might have caused the fire on board, leading to the crash.
- 4 Former SAA employees came forward, often anonymously, to support the allegation that it was not unusual for passenger flights to carry dubious parcels destined, they presumed, for Armscor. Moreover, members of the Flight Engineers Association indicated that the Margo Commission had overlooked important information when investigating the incident. There were allegations of cover-ups by the Margo Commission and experts suggested that the fire might have been "self-promoted" (with a self-generated oxygen source).
- 5 The allegations of a cover-up and uncertainty about the cause of the fire prevented families of victims from putting the matter to rest. Individual submissions were made to this Commission by Mr Peter Wills, twin brother of John Wills who was killed in the crash, Mr Rod Cramb, brother of a crew member; Mr Pieter Strijdom, whose wife died on board; and Ms Michelline Daniels, who lost her brother. The Commission also received a submission from Friends of the Victims of the *Helderberg*, urging the Commission to find the cause of the destruction of the plane.
- 6 The Commission began an investigation in late 1997 despite the fact that it was unclear whether the crash was politically motivated, a criterion for an enquiry by the Commission. Although extensive enquiries were conducted and circumstantial evidence collected, the Commission was unable to determine the cause of the fire. It is hoped, however, that the Commission's efforts will assist any future investigations into the matter.

## METHODOLOGY

- 7 An enormous amount of documentation about the incident was made available to the Commission by an investigative journalist. Documents included cargo manifests, submissions to the Margo Commission, newspaper reports, reports by independent scientists and engineers and a report by the Flight Engineers Association, amongst others.
- 8 Investigators analysed the documentation and identified individuals who could provide additional information to the Commission. These included families of victims and former SAA employees. Once these individuals had been interviewed, the Commission decided to approach a further group of people. Many of these represented the interests of the implicated parties, such as SAA and Armscor. It was decided that the Commission should utilise its section 29 powers to hold an *in camera* investigative enquiry to canvass the views of these people. This would provide them with an opportunity to answer questions in the presence of their legal representatives and would enable a panel of Commissioners to evaluate the information gained at first hand. The following people appeared as witnesses at the hearing:
  - Mr Joseph Braizblatt, SAA cargo manager at Ben Gurion airport, Tel Aviv, Israel;
  - Dr David Klatzow, an independent forensic scientist;
  - Mr Richard Steyl, an Armscor employee in the shipping department;
  - Dr J Steyn, a former Armscor employee and MD of Altech Electronic Systems, which had two loads of cargo on the *Helderberg*;
  - Mr John David Hare, a former Armscor employee who joined SAA;
  - Mr Brian Watching, a former SAA employee;
  - Mr Tinie Willemse, a lawyer who was chief director: international relations of SAA at the time of the incident;
  - Mr Gerrit Dirk van der Veer, chief executive officer of SAA at the time of the incident;
  - Mr Thinus Jacobs, manager of SAA in Taipei between 1987 and 1991;
  - Mr Mickey Mitchell, chief of operations for SAA at Jan Smuts (incorporating Springbok Radio Tower) at the time of the incident;
  - Dr André Buys, Armscor general manager: planning.
- 9 Others who were interviewed included:
  - Mr Japie Smit, director of civil aviation;

- Mr Leslie Stokoe, an expert on dangerous goods;
- Mr Vernon Nadel, duty officer at the Springbok Radio centre on the night of the incident;
- Mr Rennie van Zyl, current chief director of civil aviation;
- Mr Jimmy Mouton, SAA flight engineer and friend of the flight engineer killed in the crash.

## ● INVESTIGATIVE RESULTS

### **The cause of the fire**

- 10 Nothing in the cargo inventory could have resulted in a "self- promoted" fire. However, the original cargo manifests were not part of the record of the Margo Commission, and it is uncertain whether those in the possession of the Commission are authentic. There is therefore no reliable list of what cargo was being transported by the *Helderberg* when it crashed.
- 11 It was suggested to the Commission that Armscor may have had a goods consignment on the *Helderberg* that could have been responsible for causing the fire. Armscor conducted an internal investigation after the incident and denies having had any items on the flight.
- 12 The Commission believed that two Armscor employees from the company Somchem, which was producing rockets and missiles during the apartheid years, could provide important information. Armscor could not assist the Commission in locating either Dr JJ Dekker, who was the MD of Somchem, or Mr François Humphries, who was procurement officer at the time.
- 13 Interviews with SAA pilots indicated that there was a belief amongst pilots that passenger flights were frequently used to transport armaments and components for Armscor.

### **The timing of the fire**

- 14 Much time has been spent attempting to determine the exact time the fire broke out. The conclusion reached by the Margo Commission was that the fire started just before the descent to land in Mauritius.
- 15 This conclusion is questionable because of the fact that there is no overlap between the conversation of the cockpit voice recorder (CVR, commonly known as the black box) and the conversations between the *Helderberg* and Mauritius air control an hour before the crash and again four minutes before the crash. This could indicate that the CVR stopped recording before the descent for landing, and the recorded conversation could therefore have taken place at any time on the nine-hour flight from Taipei.

- 16 The conversation on the CVR was analysed by the Flight Engineers Association, which concluded that the discussion was likely to have taken place within three hours of the flight leaving Taipei. This would indicate that something stopped the recording at this early stage of the flight. The flight engineers presented the Margo Commission with a submission indicating that they believed there had been two fires on board.
- 17 The Margo Commission ruled most of the CVR recording inadmissible because it was irrelevant and too personal. Analysts have argued that this decision by Justice Margo prevented his commission from accurately placing the conversation and may therefore have led to incorrect conclusions.
- 18 The theory of two fires on board was impossible to test adequately, since the recording of the conversations between the *Helderberg* and South African air traffic control went missing shortly after the incident and was never recovered. In a letter to the Commission, a United States marine said that the CIA had a recording of this conversation. The Commission wrote to the director of the CIA asking him to confirm this and to make a copy available. No response was received.

## **The fire**

- 19 The Margo Commission did not find a cause for the fire on board the *Helderberg*, but said that it might have been caused by "ordinary packaging material". This Commission's investigation indicates that ordinary packaging material is unlikely to have been the cause, for the following reasons:
- The fire was contained, and burnt fiercely at a high temperature.
  - A packaging material fire causes a great deal of smoke, which would have set off the smoke alarms before the fire threatened the structure of the plane. The indications are that the smoke detectors were not activated until the fire had reached dangerous proportions.
  - A promoted fire could reach very high temperatures (far in excess of 1000 degrees Celsius) without setting off smoke alarms.
  - A promoted fire could cause packaging materials to catch alight if they were to be exposed to the flames.
- 20 The possibility of a "self-promoted" fire is raised in a submission to the Margo Commission by Mr Greg Southeard, a chemist working for Burgoyne and Partners of the United Kingdom. Southeard indicated that he believed that the fire could have been caused by an incendiary device or a hazardous substance.
- 21 The director of civil aviation, Mr Japie Smit, told this Commission that most of such fires the world over are caused by illegal substances on board, and said that, when they simulated the fire, they were unable to put it out without the assistance of the fire brigade.
- 22 A letter from a Somchem employee to a journalist working on the matter stated that:

*South Africa's ammonium perchlorate (APC) production facility was set up in the 1970s at Somchem. Around the time of the Helderberg crash, South Africa was involved in military operations in Angola, Namibia and on the home front. The operational demand for solid rocket fuels was high. Somchem was not keeping up with the demand. A decision was made to double the capacity. This involved shutting down the plant for the duration of the extensions. Because of the ongoing demand, it was impossible to stockpile APC prior to the shutdown. Obviously a large quantity of APC had to be sourced outside the country for a period of several months in defiance of prevailing military sanctions. This was difficult and expensive, and I believe that initially the necessary APC was sourced from America and that it was brought in on SAA passenger planes as an integral part of the necessary deception (Commission's summary).*

- 23 Ammonium perchlorate is used mainly in military Class One applications, and as such is forbidden on all aircraft. Class Five, for commercial/technical application, could be carried by air in limited quantities depending on the type of aircraft (passenger or cargo) and packaging instruction. Supplier countries include the United States, China, Japan and France.

## The investigation

- 24 Questions raised throughout the investigation process indicated that the investigators of the Margo Commission had not followed correct procedures. The matters raised are summarised in the finding below.

## ● CONCLUSION

- 25 This Commission's investigation into the *Helderberg* crash raised significant questions about the incident itself as well as the subsequent investigations that were conducted.

- 26 The matter is still under investigation by the special investigation team of the Gauteng Attorney-General.

THIS COMMISSION'S INVESTIGATION INTO THE CRASH OF THE *HELDERBERG* ON 28 OCTOBER 1987 SHOWED THAT MANY QUESTIONS AND CONCERNS REMAIN UNANSWERED, INCLUDING THE FOLLOWING:

- THE DIRECTOR OF CIVIL AVIATION (DCA) NEGLECTED TO SECURE ALL DOCUMENTATION AND RECORDINGS AS REQUIRED BY THE FLIGHT ENGINEERS ASSOCIATION [FEA] REGULATIONS: THE CARGO MANIFESTS WERE MISSING.
- MR JIMMY MOUTON OF THE FEA ALLEGES THAT THE FEA WAS REQUESTED BY THE LAWYER ACTING FOR THE DCA, AS WELL AS BY JUSTICE MARGO HIMSELF AT A LATER STAGE, TO WITHDRAW ITS SUBMISSION INDICATING THAT THERE MAY HAVE BEEN TWO FIRES ON BOARD.
- THE TAPE WHICH WOULD HAVE RECORDED CONTACT BETWEEN THE *HELDERBERG* AND SPRINGBOK RADIO CONTROL REMAINS MISSING.
- EYEWITNESSES OF THE CRASH WERE NOT CALLED TO GIVE EVIDENCE BEFORE THE MARGO COMMISSION.
- THE MARGO COMMISSION DID NOT CALL MEMBERS OF ARMSCOR TO GIVE EVIDENCE.

- 27 It is clear that further investigation is necessary before this matter can be laid to rest.