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**LETTER DATED 2 OCTOBER 1987 FROM THE PERMANENT REPRESENTATIVE OF SOUTH
AFRICA TO THE UNITED NATIONS ADDRESSED TO THE SECRETARY-GENERAL**

I have the honour to attach the text of a statement by the South African Minister of Foreign Affairs, Mr. R. F. Botha, in response to allegations made in the General Assembly of the United Nations, about South Africa, by President Chissano of Mozambique. I also attach extracts from the report of the Board of Inquiry into the accident which claimed the life of President Samora Machel and others on 19 October 1986.

I should appreciate it if this letter and its annexures could be circulated as a document of the Security Council.

(Signed) A. Leslie MANLEY
Permanent Representative

Annex I

Reaction of South African Minister of Foreign Affairs,
Mr. R. F. Botha, to allegations made at the United
Nations by President Chissano of Mozambique

Minister R. F. Botha commented as follows on the allegations which were made against South Africa in the United Nations, New York, by President Chissano.

President Chissano of Mozambique is apparently under the impression that allegations against South Africa emanating from United Nations circles in New York are given a better hearing than those from Maputo.

A lie nevertheless is nothing less of a lie merely because it is told on another continent. President Chissano has deemed fit to repeat at the United Nations previous allegations regarding the death of the late President, President Machel. The findings of an independent panel of international experts refute, however, the allegations of the President of Mozambique in respect of facts, interpretation and conclusion.

This illustrates not only the senselessness of such unsubstantiated allegations but in fact it is not South Africa which suffers but the reputations of famous personalities such as the United States' Colonel Frank Borman and the United Kingdom's Sir Richard Everleigh and Mr. Geoffrey Wilkinson. I should like to know what Mr. Frank Borman has to say on this score.

According to reports, the Mozambican leader will shortly be received by President Reagan and one can but hope that President Reagan will also judge other remarks made by President Chissano about South Africa against the background of this verifiable untruth.

Annex II

Extracts from the report of the Board of Inquiry into the accident which claimed the life of President Samora Machel and others on 19 October 1986

Introduction

The members of the Board were the Hon. Mr. Justice C. S. Margo, D.S.C.O., D.F.C., F.R.A.E.S., of the Supreme Court of South Africa, the Rt. Hon. Sir Edward Walter Eveleigh, P.C., former Lord Justice of Appeal, of the United Kingdom, Col. Frank Borman, Congressional Space Medal of Honour, former Chief Test Pilot, astronaut, aeronautical engineer and President and Chief Executive of Eastern Airlines, of the United States of America, Mr. Geoffrey Crichton Wilkinson, C.B.E., A.F.C., F.R.A.E.S., former test pilot, aeronautical engineer, and Chief Inspector of the Accidents Investigation Branch, Ministry of Transport, of the United Kingdom, Mr. J. J. S. Germishuys, former Commissioner for Civil Aviation, of the Republic of South Africa, and Mr. P. van Hoven, Chairman of the Airline8 Association of South Africa of the Republic of South Africa.

The Board appointed its own attorney, Mr. N. van Rensburg, of the firm of Rooth and Wessels, Pretoria, and the Counsel, Mr. C. E. Puckrin, S.C., to lead the evidence. They were assisted by Mr. Peter Martin, of the firm of Frere Cholmeley, Solicitors, of London. Mr. J. H. Coetzee, S.C., with him Mr. P. 2. Ebersohn, instructed by Messrs. J. P. Krause and J. N. J. Roegelenberg of the State Attorney's Office, Pretoria, appeared at the hearings to represent the Departments of Foreign Affairs, Transport and Defence.

The delegation of the Union of Soviet Socialist Republics signed the 'aircraft accident factual report' subject to an attached statement which reads as follows:

"The Soviet Union, acting in terms of the Chicago Convention of 1944 and in accordance with standards and recommended practices of annex 13 to the Chicago Convention, considers that an analysis and conclusions should be developed and added to the aircraft accident factual report by the same investigation commission.

"According to annex 13, paragraph 6.11, the analysis and conclusions must be elaborated and agreed to on a trilateral basis by the States participating in the investigation.

"Any other procedure of elaboration of the report contradicts international rules and cannot be accepted by the Soviet side.'

In the report the Board explains that this submission is wrong. The Board concludes as follows:

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"The position in the present case therefore is that, while the States other than the State of occurrence have the right to participate in the investigation and the State of Registry has also the right to be present at the Inquiry and they both have been offered a substantial role in the conduct of the Inquiry, nothing in the Convention or annex 13 gives them the right to adjudicate or make the final decision. In so far as it claims this right the statement of the USSR is erroneous, but there exists, of course, the right to comment on the draft final report and to have the comments, if any, dealt with in accordance with paragraph 6.11."

SYNOPSIS

Operator and owner: People's Republic of Mozambique (Mozambique)

Aircraft type and model: Tupolev TU-134A- 3

Aircraft nationality

and registration marks: The aircraft was registered in Mozambique as C9-CAA

Date and time of accident: 19 October 1986 at 19h21'39"

Note: 1. Save where otherwise stated Universal Co-ordinated Time (UTC) is used throughout this report. Local time is UTC plus 2 hours.

2. Flight level (FL), altitude and elevation are expressed in feet, or metres with the equivalent in feet. Linear measurements are expressed in metres. Distance is expressed in kilometres or nautical miles, as the case may be.

Place of accident: Mbuzini, district Komatipoort, Republic of South Africa, latitude 25 54' 41' S, longitude 31 57' 26' E.

On 19 October 1986, at 19h21'39", the aircraft crashed in hilly country while descending in darkness and cloudy conditions. The crew were under the erroneous impression that the aircraft was in the vicinity of Maputo airport, Mozambique.

A map indicating the approximate position of the relevant points is annexed as appendix 111 (of the full report).

The aircraft, which was being used to transport a group of senior Mozambique government officials led by President Samora Machel, was en route from Mbala in northern Zambia to Maputo with an estimated arrival time of 1925h.

The Chief of Accident Investigations of the State of occurrence (South Africa) received telephonic notifications of the accident at 0530h on 20 October 1986. The State of registry and of the operator, Mozambique, was notified by means of the

aeronautical fixed telecommunications network at 0650h on 20 October 1986 and the State of manufacture, the USSR, at 0600h on 22 October 1986.

The investigator-in-charge of the State of occurrence arrived at the scene of the accident at 1200h on 20 October 1986 and commenced the investigation, followed by further investigators on 21 October 1986.

The State of occurrence approached both the United States National Transportation Safety Board (NTSB) and the United Kingdom Accidents Investigation Branch (AIB) for assistance with the investigation but both were reluctant to get involved on an individual basis. The International Civil Aviation Organization (ICAO) was then requested to approach Contracting States for investigators and for assistance to ensure an impartial investigation. ICAO replied that, as the investigation was in the hands of the State of occurrence and that the State of registry and the State of manufacture were represented, there was no need for a further communication from ICAO. South Africa then requested Mozambique also to approach ICAO to arrange that an impartial expert participate in the read-out of recorders and analysis of information, after which three advisers were made available to the State of registry. In the absence of the assistance requested by the State of occurrence, it obtained the services of three independent advisers.

Representatives of the State of registry and the State of manufacture were invited to join the investigation team of the State of occurrence, and these three parties jointly undertook the field investigation. This tripartite investigation team jointly produced an agreed aircraft accident factual report which was signed on behalf of all three parties on 16 January 1987.

The State of occurrence appointed an Accident Inquiry Board, the members of which were from South Africa, the United States and the United Kingdom to make an investigation into the cause of and responsibility for the accident. The Board has carried out the functions of investigator-in-charge in terms of annex 13 to the Chicago Convention. The State of occurrence, and also the Board, invited the State of registry and the State of manufacture and all other interested parties to participate in the Inquiry by attending the proceedings directly or through representatives, with the right to cross-examine witnesses, to call their own witnesses and produce any other evidence and to make representations to the Board. In addition due notice of the date of the proceedings of the Board was given in writing to the representatives of the USSR and of Mozambique.

On the invitation of the USSR, representatives of Mozambique and South Africa visited Moscow from 20 to 23 November 1986 and were given information on the flight recorders, crew procedures and the aircraft equipment. The CVR was transcribed in Zurich, Switzerland, from 24 to 26 November 1986 in the presence of representatives of the three participating States. The USSR provided the read-out equipment and technicians and the Government of Switzerland provided the facilities. Back in Moscow from 27 November 1986 to 2 December 1986 the digital flight data recorder was decoded and read out, the data were analysed and the flight path and the ground track were reconstructed in the presence of representatives of the three participating States.

The aircraft, on its last flight, departed from Mbala at 1638h and was routed to Maputo via Kasama, Lusaka and Kurla. At 1847h the crew contacted Maputo Information and reported overhead Kurla flight level (FL) 350, estimated position abeam Limpopo at 1905h and Maputo 1925h. The crew reported 48 persons on board and an endurance of four hours.

At 1849h the aircraft acknowledged the Maputo AFIS controller's information that no delay was expected for an ILS approach to runway 23 and confirmed that the flight would continue at FL 350 to VMA (VOR Maputo).

At 1902h the aircraft reported top of descent and was instructed by the controller to report runway lights in sight or reaching 3,000 feet. The METAR report for Maputo airport was given.

During the descent the aircraft executed a turn through 37' to the right. Had such turn been executed eight minutes later, it would have resulted in the interception of radial 045 (VMA) for an ILS landing on runway 23 at Maputo airport.

At 1918h the aircraft reported at 3,000 feet and was cleared for an ILS approach to runway 23. Later, when the aircraft radio operator reported (erroneously) that the ILS was unserviceable, the controller cleared the aircraft for a visual approach to runway 05.

The aircraft continued to descend in darkness at an average rate of 2.5 metres (8 feet) per second, or 480 feet per minute, in an attempt to establish visual contact with the Maputo runway lights. In fact it was then out of range of most of the Maputo navigational aids and the crew were unsure of their position.

The radio operator continued communications with the Maputo controller until 1921h, after which time there was no response to calls from the controller.

The wreckage of the aircraft was found approximately 35 nautical miles west of Maputo airport, in South Africa. The crash site was in a hilly terrain at an elevation of 666 metres (2,185 feet), approximately 150 metres inside the South Africa-Mozambique border.

Those fatally injured totalled 34. They included the President of Mozambique. The flight engineer and nine passengers were injured. One of the injured passengers subsequently died of his injuries.

Immediately prior to impact the aircraft and all relevant equipment were fully serviceable and airworthy. There was no evidence of sabotage or outside interference.

As appears from its conclusions in section 3 of the report, the Board was unanimously determined that the cause of the accident was that the flight crew failed to follow procedural requirements for an instrument let-down approach, but continued to descend under visual flight rules in darkness and sane cloud, i.e. without having visual contact with the ground, below minimum safe altitude and minimum assigned altitude and in addition ignored the GPWS alarm.

CONCLUSIONS

A. Findings

1. The operating crew were qualified and properly licensed to operate the Tupolev TU-134A-3 aircraft and had had experience of operating into Maputo at night.
2. The aircraft had been properly maintained and its documentation was in order. It was airworthy, and properly loaded and there was no technical failure or malfunction in flight prior to impact.
3. The status of the radio navigational aids on the ground and in the aircraft was adequate for let-down and ILS approach.
4. The weather at the destination airport was not a factor.
5. The runway lights were operating normally.
6. The DFDR operated properly and provided essential data to assist in the investigation.
7. The CVR operated properly and provided essential information to assist in investigation.
8. There was no evidence of crew disability prior to impact.
9. The crew did not file a flight plan as required by Mozambique regulations.
10. The crew was unaware of the correct number of passengers on board.
11. The crew miscalculated the endurance of the aircraft in the initial communication with Maputo AFIS.
12. The aircraft did not have sufficient fuel on board to proceed to the selected alternate airport.
13. The cockpit layout and crew positioning prevented the navigator from visually checking the VOR frequency selection and prevented the pilots from visually checking the ADF frequency selection on the Doppler control Panel. This made cross-checking by the challenge-by-the-answer system essential, but no such checking took place.
14. The aircraft was prematurely (by about eight minutes) turned 37° to starboard during descent. This turn was initiated by the navigator via the Doppler system and the automatic pilot.
15. The aircraft would have intercepted the radial 045 for runway 23 of the Maputo VOR if the aforementioned turn had been made at the proper time.
16. The navigator introduced the turn because the VOR indicated it.

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17. The only VOR signal that could have indicated this was that of Matsapa. The probabilities are, first (and this seems the more likely), that the Matsapa VOR frequency was selected inadvertently on the No. 1 VOR selector, the navigator's OBS/CDI being coupled to the No. 1 VOR receiver, and that the No. 1 VOR selector was later turned to the Maputo ILS frequency; or secondly, that the Matsapa VOR frequency had been selected temporarily by the co-pilot as a cross-check, without informing the rest of the crew, and that the VOR selection had then been returned to Maputo, and that it was during that time the navigator followed the Matsapa beacon.

18. The required procedures and call-outs during the final let-down and approach were not followed. There was a breakdown in crew discipline and co-ordination.

19. The co-pilot was listening to music and a news broadcast on the HF radio during the critical stage of descent.

20. The crew did not use the secondary navigational aid available (i.e. the broadcast station at Maputo and the on-board radar).

21. The crew encountered cloudy conditions during the descent.

22. The captain continued to let down below the prescribed altitude of 3,000 feet without the runway lights being in sight and without any other visual reference to the ground.

23. The crew ignored the GPWS alarm warning.

24. Communications with the Maputo tower were at times ambiguous and misunderstood by both parties.

25. There is no substance in the theory that the aircraft was lured off course by means of a false VOR.

26. After discovery of the crash, medical and rescue assistance was provided in a timely manner considering the remoteness of the site.

B. Cause

The cause of the accident was that the flight crew failed to follow procedural requirement for an instrument let-down approach, but continued to descend under visual flight rules in darkness and dense cloud, i.e. without having visual contact with the ground, below minimum safe altitude and minimum assigned altitude and in addition ignored the GPWS alarm.

C. Responsibility

In terms of the provisions of section 12(1) of the Aviation Act, No. 74 of 1962, as amended, the Board is also required to determine responsibility for the

accident. The Board's findings on this aspect are adequately indicated in the analysis and conclusions (see above).

RECOMMENDATIONS

1. Aviation authorities should draw the attention of operating crews and air traffic control personnel to the need for compliance with and the correct use of the RTF terminology interpretation, as provided in annex 10, chapter 5.
2. Attention should further be given to recurrent training and the use of correct air traffic control terminology, particularly in cases where a language foreign to that of the flight personnel or air traffic controller is used.
3. The monitoring of crew compliance with prescribed operating procedures should be reviewed.
4. The period over which CVR installations should keep a running record should be increased from 30 minutes to at least one hour.
5. Attention is drawn to the importance of maintaining navigational aids in accordance with the standards of integrity laid down by ICAO.
