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POLICIES OF APARTHEID OF THE GOVERNMENT
OF SOUTH AFRICA

Inquiry into the reports concerning a nuclear
explosion by South Africa

Report of the Secretary-General

In pursuance of the request addressed to the Secretary-General by the General Assembly at its 47th plenary meeting, on 26 October 1979, the Secretary-General wishes to inform the Assembly of the following:

1. As indicated in the interim report (A/34/639), the Secretary-General contacted the Government of South Africa, requesting it to transmit all pertinent information on the matter to him, and also contacted the Government of the United States of America with the same request. Furthermore, all Member States in a position to provide any relevant information on the matter were invited to make it available to the Secretary-General.
2. The Secretary-General has received written replies from the Governments of South Africa and the United States of America, the texts of which are annexed to the present report as annexes I and II.
3. The Secretary-General will convey to the General Assembly any further information made available to him by the United States of America or any other Government, in pursuance of the invitation addressed to them.

ANNEX I

Note verbale dated 5 November 1979 from the Permanent Representative
of South Africa to the United Nations addressed to the Secretary-
General.

The Permanent Representative of South Africa to the United Nations presents his compliments to the Secretary-General and, with reference to the Secretary-General's note of 31 October 1979, has the honour to state that the South African Government has no knowledge of any nuclear explosion having occurred in or in the vicinity of southern Africa recently.

The Secretary-General may be interested in the enclosed statement issued by the South African Atomic Energy Board which indicates that, on the basis of scientific evidence, it is most unlikely that an atmospheric nuclear test could have been conducted in the region in question recently.

The suggestion that South Africa may have exploded a nuclear device is yet another example of the tendency in the United Nations and elsewhere to level all sorts of accusations against South Africa without first establishing the facts.

APPENDIX

Statement dated 30 October 1979 by the South African Atomic
Energy Board on the measurement of nuclear weapon debris
over South Africa

1. The Atomic Energy Board has been making regular measurements of radioactive fall-out over South Africa since 1965.
2. Presently the programme consists of collecting airborne particulate matter by continuously moving air at a rate of one cubic metre per minute through high efficiency filters. Particulate matter which deposits on the ground surface is collected by exposing large polythene funnels mounted on bottles which also collect rain water. In addition air moisture samples for tritium measurements are collected.
3. Sample collection takes place continuously at Pelindaba and at a site near Cape Town. Samples collected at Pelindaba form part of the global monitoring network for radioactive fall-out measurement conducted separately by both the United Kingdom Atomic Energy Authority in Harwell, England, and the Environmental Measurements Laboratory of the United States Department of Energy in New York (formerly the Health and Safety Laboratory of the United States Atomic Energy Commission). Air filter and deposition samples from Pelindaba are regularly collected with their own equipment and supplied to the United Kingdom while the United States laboratory receives only deposition and rain-water samples. These samples are analysed for various radioactive nuclides by the respective laboratories and the results are regularly published in their own reports.
4. Samples collected at Cape Town as well as parallel samples collected at Pelindaba are analysed at the National Nuclear Research Centre at Pelindaba by means of radio-chemical and spectrometric methods and the results are regularly compared with those of the other laboratories.
5. Since the cessation of the French nuclear tests in the southern hemisphere in 1973 the levels of radioactivity over South Africa have steadily decreased and are presently below the limits of detection for most of the radionuclides except the long-lived strontium-90 and cesium-137, traces of which are still present in the atmosphere.
6. Experience gained during the French test series from 1966 to 1973 proves that atmospheric nuclear bomb tests conducted at mid-latitudes rapidly spread through the particular hemisphere and circle the hemisphere in a time span of approximately 21 days under the influence of the antitrade (westerly) winds.
7. A recent nuclear test would label the atmosphere with a fresh mixture of radioactive fission products which can be detected with very high sensitivity.

Samples collected up to 22 October in both Cape Town and Pelindaba and subsequently analysed show no trace of fresh fission products whatsoever.

8. In the absence of this tell-tale evidence it is considered most unlikely that an atmospheric nuclear test has recently been conducted in this region.

ANNEX II

Note verbale dated 9 November 1979 from the Permanent Representative
of the United States of America to the United Nations addressed to
the Secretary-General

The Permanent Representative of the United States to the United Nations presents his compliments to the Secretary-General and has the honour to submit the attached reply to the Secretary-General's request dated 31 October for information relating to "reports that South Africa had conducted an atomic explosion".

APPENDIX

Reply received from the United States in response to
the Secretary-General's request for information

1. The United States will co-operate to the fullest possible extent in assisting the Secretary-General in his inquiry regarding the possibility that a nuclear explosion may have taken place on 22 September in the southern hemisphere in a region which includes parts of the Indian and South Atlantic Oceans, as well as southern Africa and Antarctica.
2. The only indication it has to date that a nuclear explosion may have occurred in that region was a signal from a United States satellite at 0052 hours GMT on 22 September 1979. The United States has not been able to obtain any corroborating evidence that a nuclear explosion actually took place. A panel of experts has been established to investigate the available data, and the United States will communicate further with the Secretary-General should there be anything further to report.