MEMORANDUM FOR:

THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE
THE SECRETARY OF ENERGY
THE DIRECTOR, ARMS CONTROL AND DISARMAMENT AGENCY
THE CHAIRMAN, JOINT CHIEFS OF STAFF
THE DIRECTOR OF CENTRAL INTELLIGENCE
THE DIRECTOR, OFFICE OF SCIENCE AND TECHNOLOGY POLICY

SUBJECT:

South Atlantic Nuclear Event (S)

Attached is an uncleared discussion paper prepared by the State Department for use at the mini-SCC meeting tomorrow, October 23. (U)

Christine Dodson
Staff Secretary

Attachment
DENIED IN FULL
B1, 1.5(C), 1.5(D), B5

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UNCLASSIFIED

Situation

The Intelligence Community has high confidence, after intense technical scrutiny of satellite data, that a low yield atmospheric nuclear explosion occurred in the early morning hours of September 22 somewhere in an area comprising the southern portions of the Indian and Atlantic Oceans, the southern portion of Africa, and a portion of the Antarctic land mass. Efforts to acquire radioactive debris have been fruitless, but debris could have escaped our collection effort. There is no corroborating seismic or hydro-acoustic data, although those systems' existing capabilities to detect low yield nuclear events in the region of interest is poor. We are unlikely to obtain any more information on the event in the near term—if at all.

Our information has not become public, but it could leak at any time. If it does, most observers will assume that South Africa tested a nuclear device. Public attention will also focus on what the USG has done about the event, and on implications for the efficacy of U.S. intelligence systems generally and test ban monitoring capabilities specifically.

Effects on U.S. Policies

The likelihood that an atmospheric nuclear explosion did occur and the possibility that South Africa has tested a nuclear device, impinge on our global nonproliferation and African policy interests. Our nonproliferation policy is to prevent any non-nuclear weapons state from acquiring nuclear explosives or the means to produce them. In countries at or near the nuclear threshold, we seek constraints on nuclear facilities and activities so as to impede their use in explosive programs. In the event a non-nuclear weapons state succeeded with a nuclear explosives program, we would seek an international reaction that discouraged others from following the same path.

For two years we have attempted to negotiate South Africa's acceptance of IAEA safeguards on its enrichment plant (which, if South Africa has tested a device, is almost certainly the source of the material used) and to obtain its adherence to the NPT. We believe South Africa only recently has begun to consider seriously the economic and consequences, including inability to complete two nuclear
power reactors now under construction near Cape Town, if it fails to meet these conditions. But in the absence of these controls, South Africa faces no significant impediment to establishing a nuclear weapons capability, if it is prepared to pay a political price. South Africa might then support nuclear weapons programs in other politically isolated states, such as Israel and Taiwan.

The nonproliferation stakes could be high if the September 22 event caused a rupture in our nuclear negotiations with South Africa. But, failure to take action in response to the September 22 event could make more difficult efforts to deter proliferation elsewhere, e.g. Pakistan and India.

Public disclosure of a probable nuclear explosion in the South Atlantic region will lead most African states to urge strong action against South Africa, almost certainly going beyond nuclear-related sanctions. We already face the immediate prospect of a United Nations Arms Embargo Committee report calling for the end of all forms of nuclear collaboration between UN member states and South Africa. Should the nuclear event leak, it will make even more difficult the daunting job of producing a draft resolution which Western members of the Security Council could accept.

Public disclosure of information about the nuclear event would also come at a bad time for efforts to achieve settlements in Rhodesia and Namibia. In Rhodesia, disclosure of a possible South African nuclear capability might have some cautionary effect on the negotiating positions of the parties at Lancaster House, but most likely would sharpen the lines already drawn.

With respect to Namibia, the South African response to the most recent Contact Group démarche will, when known to SWAPO and the Front Line, confirm already strong African suspicions that the SAG intends to work toward an internal settlement while stringing along the West and the UN as long as possible. Disclosure of the nuclear event would further diminish, and perhaps finally end, Front Line willingness to pursue implementation of the UN plan.
Tactical Issues

The following elements must be considered in developing a U.S. response to the September 22 event that minimizes potential damage to our nonproliferation and African policies.

Congress and the Public

Because of the likelihood that information on the September 22 event will become public, we should very soon inform key members of Congress (in addition to the leadership of the Select Intelligence Committees, already briefed) of our intelligence, our conclusions concerning the nature of the event, the foreign policy implications of the present situation, and actions we are taking. So as not further to enhance the likelihood of a leak, these consultations should be conducted with members only (excluding staff) and with the minimum number of members. We should stress the extreme sensitivity of the information and the perhaps irreparable harm that a leak would cause to U.S. interests, particularly to other African and nonproliferation policy initiatives. Appropriate members would be the Senate and House leadership, perhaps the chairmen and ranking minority members of the foreign affairs committees, and possibly a few other members with strong identifiable interest in the problem.

We should have available a new contingency statement for use in case of a leak. Such a statement should confirm that the U.S. has data pointing to a nuclear explosion, that no corroborating evidence has come to light, and that we are in consultation with concerned governments. (Proposed contingency statement at Tab A).

In any public discussion of the nuclear event, we must be in a position to respond to criticism of our test verification capabilities (an approach to this problem is at Tab B).

International Consultations

We have already informed the UK, France, the FRG, Canada and Australia of our initial satellite information, and have sought their assistance in obtaining corroborating information. The UK and France, in particular, have political interests that will be affected by the way we handle
this problem, particularly if it becomes a public issue. The British have recorded their concern regarding the need to consult with them on how we plan to handle this issue. They have stressed the importance of arriving at a coordinated position covering public response, handling in the UN, and approaching the South Africans.

We should consult soon with the UK and France, and to some degree with others. Specifically, we should inform appropriate governments of the status of our evidentiary base, and discuss with them the tactical implications of our inability to prove or disprove that South Africa has tested a nuclear device. While we should be prepared to take into account the concerns and ideas of other governments, the U.S. -- as the potentially most politically exposed nation -- cannot allow other governments to significantly modify a course of action designed to meet U.S. objectives.

Approach to SAG

South Africa is the most likely responsible party by virtue of its geographic location, its advanced nuclear status which includes a uranium enrichment capability, and evidence that it has actively explored development of a nuclear explosives capability. No other threshold state meets all these conditions (although we must consider the possibility that Israel could have detonated a device in this remote geographic area).

A case can be made for not going to the South Africans on this issue: On the one hand, the evidence is not strong enough to permit a categorical accusation; on the other hand, the South Africans are likely to treat our raising of the subject in any form as an accusation. If the South Africans are "guilty", they are unlikely to admit it and in all probability will deny it vehemently. If they are not guilty, we must assume they will react violently and probably conclude that there is no further point in discussing broader nuclear issues with the U.S.

Not to go to the SAG, however, leaves us vulnerable -- particularly if the intelligence on the September 22 event becomes public -- to charges that the USG did not respond with prudence or that we are unwilling to confront the
likieliest perpetrator. On balance, there seems more to be gained than lost by addressing the subject with the SAG.

Modalities. Nuclear policy issues in general are treated by an extremely small circle of officials in the South African government. In a matter concerning nuclear weapons development, we should assume that very few government officials below the Prime Minister (who is also Minister of Defense) and a few atomic energy officials would be involved. It is entirely possible that the Foreign Minister would be unaware of the nuclear test, and quite probable that Secretary for Foreign Affairs, Brand Fourie (our usual contact on nuclear matters), would be unaware, even though the latter is a member of the South African Atomic Energy Board.

For maximum effectiveness, an approach should be to the Prime Minister, the most responsible official and who without question knows whether South Africa has tested. The approach should be on as restricted a basis as possible -- the session should be private and other officials should not be aware of it. The Prime Minister thus would have the greatest flexibility in responding, and would have less reason to stage a hostile reaction for domestic consumption. Finally, raising the matter with the Prime Minister avoids using the channel (Fourie) in which our nuclear negotiations have been conducted.

We should avoid explicit linkage between the nuclear test problem and the nuclear negotiations. The importance of the test issue transcends that of the details of the negotiations and should be addressed accordingly. In addition, if the South Africans are not "guilty"; they will be disposed to look for any hint that we are trying to increase the stakes involved in the nuclear negotiation. A proposed approach to the SAG is at Tab C.

Since our credibility with the SAG is low and particularly so on nuclear issues, we should consider asking the UK and France to join us in a demarche. Both have standing in the matter: the UK is the only other depositary power for the LTTB with which the SAG has diplomatic relations and the UK has important political interests in the region; France is currently South Africa's most important nuclear supplier. Both, are nuclear weapons states.
tripartite demarche would underline the distance between this subject and our own nuclear negotiations, and it probably would not be lost on the SAG that the three parties concerned are the three Western members of the Security Council.

**Effect on Nuclear Negotiations.** Separate from the tactical issue of how to approach the SAG in a manner that preserves the possibility of reaching an accommodation with the SAG on broader nuclear issues, is the question of whether our negotiating objectives should change. The objectives we now seek, NPT adherence and full-scope safeguards, establish a reasonable nonproliferation regime for South Africa's nuclear program. Adding further conditions would almost certainly disrupt the negotiations.

Nonetheless, our own suspicions and likely publicity concerning the September 22 event will increase the difficulty of justifying continuing nuclear cooperation with South Africa and of defending it politically in the U.S. and elsewhere. In the absence of clarification of the nature of the suspect event, it is dubious that the Congress would accept a proposal to continue nuclear cooperation. The policy choice here is between maintaining a willingness to continue nuclear cooperation under adverse political circumstances or abandoning efforts to reach a nuclear accommodation with South Africa and thereby relinquishing all prospects—slim as they may be—of attaining our nonproliferation objectives in South Africa.

If we could offer the SAG a convincing case that we knew it had tested a nuclear device, we would be in a strong position to demand more from the SAG in return for continued U.S. nuclear cooperation, to demand that it meet certain conditions as a prerequisite for resuming negotiations on nuclear cooperation, or we could stop the negotiations— with the onus on the SAG. Our evidentiary basis, however, does not support such approaches.

**Informing the Soviets**

We need to decide whether to inform the USSR of the situation. It is possible, although not likely that the Soviets have relevant information. They seem already aware that we have some nuclear related concern toward South Africa, and may learn more as a result of our consultations with other governments. If in these circumstances we fail to bring the Soviets into our confidence, we would leave them unrestrained to use their information in whatever way meets their own interests. We would also damage the continued
effectiveness of US-Soviet cooperation on nonproliferation, a subject we have tried to bring the Soviets to view in terms other than their own parochial interests.

Informing the Soviets cannot be done without risk; in providing our evidence and its implications to the Soviets, we may fail to restrain them from seeking political capital. For this reason, we should defer a decision on consulting the Soviets until after we have informed the Congress, met with key allies, and raised the issue with the SAG.

UN Sanctions

We do not have enough evidence to accuse South Africa of having tested a nuclear device, but once our information becomes public others will demand sanctions. Since our evidence points to the possibility that South Africa conducted a nuclear test, it will be difficult to argue credibly against adoption of some form of sanctions against South Africa—particularly since the SAG has not met our conditions for nuclear cooperation after two years of talks.

Any UNSC response to debate on a South African test will reflect the mood in the General Assembly, although in practical terms, the Western powers can exercise some control through the prospect of vetoing an unacceptable resolution. We could introduce a resolution both for the added political benefit of taking the initiative, and in the interest of shaping the outcome to conform to our objectives.

It would be advantageous to build into a resolution an automatic termination under defined conditions. Such conditions presumably would be, at least, South Africa's immediate pledge of no (or no further) testing, adherence to the NPT and placement of all its nuclear facilities under international safeguards. This would be consistent with our negotiating position with South Africa, although as a precedent for other proliferation cases it would go beyond the requirements of U.S. law. A stiffer resolution would "outlaw" South Africa until it had dismantled all nuclear facilities of military significance and permitted international verification of its action. This would be more acceptable to the Africans, but our support for it would imply that we believed South Africa had tested. South Africa would undoubtedly reject such conditions in a resolution.
An appropriate self-terminating resolution would give the South Africans a way out of their situation and some incentive to take far-reaching actions of nonproliferation significance. It is doubtful that they would take advantage of such an opportunity. Sanctions of unlimited duration, however, would confirm for South Africa that its place in the world community is untenable; this would reduce any prospect of a change of course in Pretoria.

Finally, the South Africans have the capability to retaliate against sanctions with some effect. Whether they would wish to do so is questionable, in view of the importance of uranium sales to South Africa's foreign exchange earnings. The threat or fear of such action could, however, significantly influence the attitudes of our allies. The UK, for example, receives something more than 50 percent of its uranium from South Africa; there are financial relationships involved as well. Similarly, the West Germans look to South Africa for nearly half their uranium, the Japanese would view with alarm any major dislocation in the world uranium supply market, and a number of other countries would be affected to varying degrees. The U.S. could make up any uranium shortfall caused by South Africa's withdrawal from the world market, but only by drawing into the strategic stockpile. Australia and Canada have the resources to make up the difference, but we don't know what their attitudes would be. (We understand that Indians are looking into this issue.)

Should information on the September 22 event not become public and the U.S. therefore does not raise the issue in the UN, there is still the possibility at an appropriate point of introducing a sanctions resolution in response to lack of progress in our nuclear negotiations with South Africa. There is also the likelihood that we soon will have to take a position with respect to a nuclear cut-off resolution introduced by the African States. In the absence of a leak regarding the September 22 event, we should face that contingency in the context of US-SAG nuclear negotiations.
Implications for Public Perceptions of
Test Ban Verification Capability

When knowledge of the September 22 signal becomes public, critics of nuclear test-bans may comment on the significance of this event as an indicator of U.S. capabilities to verify test ban treaties. If by that time we have additional high-confidence information which resolves the ambiguities in the event's nature, location, and originating country, the Congress, press, and public are likely to conclude that the event illustrates strong U.S. capability to detect and identify even small nuclear explosions in the atmosphere.

However, if any of these three ambiguities are not resolved before the event becomes public, critics may attempt to use it to deprecate U.S. verification capabilities, both for atmospheric tests and more broadly. Administration spokesmen should be prepared to respond promptly along the following lines:

1. The U.S. has several systems capable of detecting nuclear explosions in the atmosphere, and plans to deploy additional systems with even greater sensitivity. All such systems inherently provide higher confidence of detection for large explosions than for very small explosions.

2. If the September 22 event was a nuclear explosion, it was of such a low yield that we would not have expected it to be reliably detected by the U.S. systems covering that region of the globe at that time. Therefore, there is no reason to conclude that U.S. monitoring systems were not operating at their expected level of performance.

3. On the contrary, this event illustrates the important fact that even very small explosions which may be below the normally expected sensitivity threshold of monitoring systems have some chance of being detected. Thus, any state which attempts to hide such a small explosion runs a risk that it will be detected. Even when the information is ambiguous, as in this case, it can alert states to the possibility of an explosion which they may be able to investigate using other methods. In the present case, such investigations are continuing.
Approach to South Africans on Nuclear Event

(To be handled with Prime Minister P.W. Botha)

-- I have been instructed to see you personally to inform you of a matter of great sensitivity.

-- One of our several world-wide atmospheric nuclear test monitoring systems during the early morning hours of September 22 recorded a signal identical with a low yield nuclear explosion in the atmosphere in the area of the Indian Ocean and the South Atlantic including the southern part of Africa.

-- We have subjected the data collected to intensive technical review which supports the conclusion that a nuclear explosion did occur.

-- We are concerned about how the event will be viewed by the international community when it becomes public knowledge that an atmospheric nuclear explosion has taken place within an area which includes South Africa.

-- We are now engaged in highly restricted consultation with other concerned states regarding the implications of the information.

-- Recalling the statements made by Prime Minister Vorster in August 1977 regarding the SAG's nuclear intentions and mindful of the obligations of the parties to the LTB, my government invites the SAG's comments.

If Asked:

Q. Are you accusing South Africa of conducting a nuclear test in the atmosphere?
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A. I have described the conclusions that one draws from our technical evidence.

Q. Do you intend to make this public?

A. No. But we cannot exclude that it will become so. If it does, we intend to respond to inquiries along the following lines: (read and/or hand over contingency press guidance).

Q. Does the U.S. now intend to make additional demands on South Africa for nuclear cooperation?

A. We believe the arrangements set forth in the Joint Minute of June 1978 provide for a reasonable nonproliferation regime; we intend to stick by them. We are under no illusion, however that completion of the arrangements will be made much more difficult if the information should leak. We are taking every possible step to prevent this from happening, and should it leak we will vigorously support whatever agreement we reach. There would be a greater possibility that the Congress would reject the settlement on the basis of suspicions that South Africa has tested. The simultaneous closing aspect of the proposed settlement protects South Africa from taking irrevocable steps in a situation in which the U.S. cannot complete its side of the arrangement.