

Z. Brzezinski  
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MEMORANDUM

THE WHITE HOUSE  
WASHINGTON

June 6, 1980

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MEMORANDUM TO: STAN TURNER

FROM: FRANK PRESS *FP*

SUBJECT: Possible South Atlantic Nuclear Explosion

Attached is the final report of the panel I convened at NSC request to evaluate whether the light flash recorded by one of our VELA satellites last September 22 was caused by a nuclear explosion. (U)

Based on exhaustive review of all available information, the panel has concluded that the September 22 signal was probably not from a nuclear explosion. This judgment is based on the lack of persuasive corroborative evidence, the existence of previous nonnuclear VELA signals which had some of the characteristics of signals from nuclear explosions, and discrepancies in the September 22 signal that had not been observed in previous VELA signals from nuclear explosions. The panel noted that it cannot rule out the possibility that a nuclear explosion occurred, but considered it more likely that the signal was caused by a natural event, possibly light reflected from debris ejected during the impact of a small meteoroid on the satellite. (S)

The panel's conclusion is likely to be the subject of continuing controversy since key officials in DIA and the weapons laboratories (including some members of your NIP panel) remain convinced that the signal was caused by a nuclear explosion. This is due primarily to the fact that the signal so closely resembles those from previous nuclear explosions, but the weapons laboratories have been unable to come up with a physical explanation that could explain the discrepancies observed in the signal. Others rely more on the few pieces of geophysical data from September 22 that might have been related to a nuclear explosion. However, all such data have been thoroughly analyzed and none can be clearly correlated with the VELA signal. (S)

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Work is continuing on all aspects of this problem, but I doubt that we will be able to reach a more definitive judgment. It is important to note that if the VELA system failed, it failed safe--it gave us a false alarm rather than a missed nuclear event. [25x1] and other agencies involved in technical intelligence collection should be encouraged to continue to set their detection thresholds sufficiently low so that we continue to get occasional false alarms, rather than miss real events. (C)

The September 22 event also illustrates the need for improvements to our nuclear test monitoring capability in the Southern Hemisphere. During the search for evidence relating to this event, a large number of unclassified sources of good quality geophysical data in this and other countries has been accessed by NRL, [25x1] and others. One aspect of our effort to upgrade our monitoring capability should be to regularize our access to this data and assess its contribution to lowering our detection thresholds. Also, as you are probably aware, the Air Force's FY 1982 POM does not include, even at the enhanced level, funds for deployment of the 12 Global Positioning Satellites that were to serve as the vehicle for the IONDS system. Consequently, you may well want to task the interagency Nuclear Test Monitoring Working Group you established under NSC auspices to develop recommended upgrades to our nuclear test monitoring capability, taking into account the lessons learned from the September 22 event and the apparent cancellation of the GPS/IONDS system. (S)

cc: Zbigniew Brzezinski ✓

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