Walking the Tightrope:

Jimmy Carter's Foreign Policy for a Nuclear Armed South Africa

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Introduction

On May 22, 1977, US President Jimmy Carter gave an address at the University of Notre Dame in which he outlined the four pillars of his foreign policy. They consisted of a commitment to human rights, a strengthening of the ties of democracies around the globe, ending the nuclear arms race with the Soviet Union, and seeking peace in the Middle East. A key tenet of the second of these pillars, the strengthening of democracy, was curbing global nuclear weapons proliferation.[1] Three months later, Carter would face a major challenge that would shake this pillar of his foreign policy when Apartheid South Africa was caught preparing a nuclear weapons test in a remote region of the Kalahari Desert. The Kalahari Incident was one instance when Carter's administration faced evidence of South Africa's nuclear weapons development. It would not, however, be the last.

Two years after the Kalahari Incident, on September 21, 1979, a US Vela Satellite detected a double flash while orbiting the earth above the southern hemisphere. Such double flashes had been detected before and had always indicated a nuclear blast. At the time, South Africa was the most likely suspect, possibly with the help of Israel. This event, known as the Vela Flash, along with the Kalahari Incident, was evidence that South Africa was going directly against the Carter administration's policy aim of curbing nuclear weapons proliferation. But pressuring South Africa was not an obvious option for Carter.

South Africa had been a longstanding US ally and represented a bastion of capitalism in an area of the world which, by the late 1970s, was seeing rapid Communist gains in Mozambique

[1] Jimmy Carter, "Address by the President at Commencement Exercises at Notre Dame University, May 22 1977," *American Foerign Policy Basic Document* (Washington: United States Government Printing Office, 1983), doc. 3, pg. 7-8. https://heinonline.org/HOL/Page?collection=forrel&handle=hein.forrel/amforpbd0001&id=56&men_tab=srchresults.

and Angola as more countries shook off the colonial yoke. Carter could not risk forcing the hand of South Africa's National Party (NP) government over the issue of nuclear weapons for fear that regime change could bring about majority rule and open the door for communism, in turn leading to another open-ended involvement by the United States in a foreign country.[2] This was not to say that Carter supported white minority rule in South Africa. Rather, he realised that the NP, however hated, held power within South Africa, and that he had to do business with them while attempting to bring about majority rule via negotiation.

Even if the NP was to remain in power, however, it was more than capable of upsetting delicate and ongoing negotiations—in which the Carter administration was heavily involved alongside the NP government and the British—with Ian Smith's government in Rhodesia aimed at bringing about majority rule in that country.[3] The Department of State also expressed concern over access to the Cape Sea Route, which was particularly important to global trade early in Carter's term owing to the 1973 Yom Kippur War, and increased uncertainty around the viability and safety of the Suez Canal as a global trade route.[4] Carter was thus forced to walk a tightrope when dealing with South Africa. He had to apply enough pressure on the NP government to make it give up its nuclear weapons program, while not applying enough pressure to solicit a reaction which would negatively influence Carter's other aims in the region.

The Kalahari Incident and Vela Flash provide insights into Carter's policy and will be used as case studies in this examination. The thesis will discuss Carter's response to these incidents when evidence of South Africa's nuclear weapons program came to light. The paper

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[2]National Security Council, "Study Prepared by the National Security Council Policy Review Committee," in *Foreign Relations of the United States, 1977-1980, Volume XVI, Southern Africa*, Office of the Historian (Washington: undated), doc. 264: 758, https://history.state.gov/historicaldocuments/frus1977-80v16/d264.
[3] Ibid., 773.
[4] Ibid., 774.

will elaborate on these two incidents, but it is important to address some of the limitations for studying these incidents. First, the exact details of the Vela Flash remain unknown to this day. Much of the material related to the incident in the archives of the US Department of State remains classified. The academic consensus today is that there was indeed a nuclear detonation in the Southern Hemisphere, and that, in light of evidence which has emerged since then, it was most probably performed by Israel with the help of the South African government.[5] Despite the uncertainty surrounding it, however, the Vela Flash is still a useful lens through which to examine Carter's policy toward a nuclear-armed South Africa. The most likely suspect for the blast at the time was South Africa, as can be seen from State Department documents shortly after the Vela Flash.[6] Rather than waiting for conclusive proof that there had been a nuclear detonation, State Department officials urged Carter to take action against South Africa for the Vela Flash. This was a very different reaction by Carter than after the Kalahari Incident two years earlier, in which he made clear to the South African government that any nuclear detonation by them would cause the United States to break off all relations with South Africa.

Recent literature on Carter's foreign policy, particularly in Africa, has sought to revise the previous view that he became more of a hardened Cold Warrior and less of an idealist over the course of his presidency. Scholars such as Nancy Mitchell, who juxtaposes the examples of crises in Rhodesia and the Horn of Africa to show that Carter responded to issues most effectively when he had time to consider all the options and prepare himself, have led this shift. Carter was weakest, according to Mitchell, in addressing crises which required decisive action,

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[5] Leonard Weiss, "The 1979 Atlantic Flash: The Case for an Israeli Nuclear Test," in *Moving Beyond Pretense*, ed. Henry Sokolski, e-book, http://www.npolicy.org/userfiles/image/oving%20Beyond%20Pretense%20web%20version.pdf#page=122 , 117-140; Sasha Polakow-Suransky, *The Unspoken Alliance* (New York: Random House, 2010), 136.

[6] "Summary of Conclusions of a Mini-Special Coordination Committee Meeting," in *Foreign Relations of the United States, 1977-1980, Volume XVI, Southern Africa*, Office of the Historian (Washington: 22 September 1979), doc. 361, https://history.state.gov/historicaldocuments/frus1977-80v16/d361.

but in which he had to consider many options and opinions.[7] This argument certainly seems to hold true in the cases of the Kalahari incident—which was not unexpected by the Carter administration—and the Vela Flash—which was far more unexpected. A close analysis of the documents regarding the Vela Flash also reveals that Carter dragged his feet over releasing information on, and responding to, the incident, particularly when compared to the response to the Kalahari Incident. Careful study of Carter's response to these two events, however, does not definitively reveal whether he became more hardline towards the end of his term.

Many scholars have examined the topic of Carter's response to South Africa's nuclear weapons development, but usually as part of larger studies. For example, Martha van Wyk has studied the nuclear relationship between South Africa and the US government, including Carter's policy regarding the topic, and briefly details Carter's carrot and stick approach to South Africa's nuclear weapons development.[8] This assessment, while providing important information on Carter's policy, only covers the topic as part of the broader history from 1949-1980. Anna-Mart van Wyk also details Carter's response to South Africa—but through the specific lens of the Cold War—and Apartheid. [9] While Anna-Mart van Wyk does go into depth regarding Carter's policy, it is treated as one part of the story and much of the focus of her work is on South Africa's decision to pursue the development of a nuclear weapon. Many historians have touched on one or both of the above-mentioned incidents specifically. These writings tend to cover topics

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[7] Nancy Mitchell, *Jimmy Carter in Africa* (Stanford: Stanford UP, 2016), 6-7.
[8] Martha S van Wyk, "Ally or Critic? The United States' response to South African Nuclear Development, 1949-1980," *Cold War History*, 7, no.2 (May 2007): 195-225, https://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/14682740701284124.
[9] Anna-Mart van Wyk, "Apartheid's Atomic Bomb: Cold War Perspectives," *South African Historical Journal*, 62, no. 1 (May 2010): 100-120, https://www-tandfonline-com.ezproxy.library.uvic.ca/doi/abs/10.1080/02582471003778367, and Anna-Mart van Wyk, "South African Nuclear Development in the 1970s: A Non-Proliferation Conundrum?," *The International History Review*, 40, no. 5 (February 2018): 1152-1173, https://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/07075332.2018.1428212.

specifically related to nuclear weapons development.[10] Sometimes these events are mentioned in order to discuss diplomacy, but rarely on the specific issue of Carter's treatment of South Africa's nuclear weapons.[11] The third category of historical scholarship is that of Carter's foreign policy, either identifying global trends, or focusing on Africa, and Southern Africa, more specifically.[12] Many of these histories treat the nuclear relationship as background to the ongoing negotiations between the Carter government (among others), and the Rhodesian and South African governments regarding majority rule in Rhodesia and South-West Africa.

As these examples show, Carter's foreign policy regarding South Africa's development of nuclear weapons has not been treated as a specific subject of examination in and of itself. Rather it has only been examined as part of a bigger picture, be it Carter's foreign policy more generally, or as a part of the development of nuclear weapons by the Third World. The biggest spectre when dealing with any topic of post-1948 South African history is Apartheid. Indeed, most histories of South Africa-US nuclear relations in this period focus on examining that topic. Much of the attention of these histories is centered around the early development of nuclear ties between South Africa and the United States, and little attention has been paid to the period of later development. Moreover, historians seem to dismiss Carter as having too little leverage over South Africa and believe that the nuclear weapons program was too advanced for him to make a

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[10] J.D.L Moore, *South Africa and Nuclear Proliferation* (London: Macmillan Press, 1987); Helen E Peurkitt and Stephen F Burgess, *South Africa's Weapons of Mass Destruction* (Bloomington: Indiana UP, 2005); Jeffrey T. Richelson, *Spying on the Bomb* (New York: W.W. Norton and Company, 2005); Leonard Weiss, "The 1979 Atlantic Flash: The Case for an Israeli Nuclear Test," in *Moving Beyond Pretense*, ed. Henry Sokolski, e-book, 117-140, https://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/07075332.2018.1428212.

[11] Sarah Bidgood, "The 1977 South Africa Nuclear Crisis," *Adelphi Series*, 56, no. 464-465, (July 2018): 55-78, https://www-tandfonline-com.ezproxy.library.uvic.ca/doi/full/10.1080/19445571.2016.1494248; Seymour M. Hersh, *The Samson Option* (New York: Random House, 1991); Sasha Polakow-Suransky, *The Unspoken Alliance* (Toronto: Random House).

[12] Nancy Mitchell, *Jimmy Carter in Africa* (Stanford: Stanford UP, 2106); Gaddis Smith, *Morality, Reason, and Power* (New York: Hill and Wang, 1986); Thomas Borstlemann, *Apartheid's Reluctant Uncle* (Oxford: Oxford UP, 1993).

difference by the time he entered office. Carter, however, did little to address this lack of leverage. His response to evidence of South Africa's nuclear weapons development, therefore, provides important insights into his foreign policy approach, his goals and how he hoped to achieve them when faced with the challenge of attempting to rein in a country over which he held little influence.

It is fair to say that, as a president, Jimmy Carter was inherently cautious. As Mitchell writes, he tended to want to do as much research as possible on an issue and attempt to take multiple aspects into account when making a decision on how to act. The carrot-and-stick approach he took to South Africa's nuclear weapons development was very much in keeping with this cautious approach to foreign policy issues, as it represents an attempt to strike a balance which took into account all aspects of Carter's goals in the region; this policy, however, provided the NP government with enough political cover to conceal its nuclear weapons development, while also creating incentives to do so and, in the process, denied Carter the leverage he desperately needed in dealing with South Africa.

Background

The nuclear relationship between South Africa and the US government began in 1948. During World War II the United States obtained 90 percent of its uranium ore from the Belgian Congo.[13] By 1948, however, the administration of Harry Truman began efforts to diversify its sourcing of uranium away from the single mine in the Congo, upon which it was dependent. South Africa's uranium mines were the obvious choice to replace Congo's as the main supplier of the precious ore to the United States. Indeed, so important was South African uranium to the United States that Under Secretary of State Robert Lovett encouraged members of the State Department to consider it in every aspect of US foreign policy regarding South Africa.[14] Although South Africa lacked the close ties to the United States that other countries, such as Britain, had forged, Prime Minister DF Malan assured the US government that the South African government was firmly on the side of the west in the Cold War.[15]

US-South African nuclear ties were strengthened in 1949, when the Soviet Union detonated its first atomic bomb and began the nuclear arms race between the two superpowers. That same year, representatives from Britain and the United States visited South Africa to discuss atomic energy.[16] In 1950, South Africa officially agreed to sell uranium ore—which was found in abundant supply in most of the country's gold mines—to the US government, thus officially beginning the business relationship between the two nations.[17] More importantly, however, this deal established that South Africa would sell this uranium ore only to the United States and Britain. Historian Thomas Borstlemann cites this deal as the most important factor in

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[13] Borstelmann, *Apartheid's Reluctant Uncle*, 43-45.
[14] Ibid., 91-92.
[15] Ibid. 126, and Anna-Mart van Wyk, "Apartheids Atomic Bomb," 101, and Martha S. van Wyk, "Ally or Critic?," 196.
[16] Martha S van Wyk, "Ally or Critic," 197.
[17] Ibid. 197.

the development of the relationship between South Africa and the United States.[18] He claims that, by selling uranium ore exclusively to the United States and Britain, South Africa made itself invaluable to the US Cold War military buildup. Indeed, in the immediate aftermath of World War II, the United States was completely self-sufficient in its nuclear program except for its uranium supply.[19] Thus, South Africa was a strong ally of the US government in the early days of the arms race.

This special relationship continued under the Eisenhower Administration. In the mid-1950s South Africa was invited to join the International Atomic Energy Agency (IAEA) along with the United States, Canada, Australia, Britain, and France. Soon after, South Africa began cooperating with the US 'Atoms-For-Peace' program started by President Dwight Eisenhower. This was formalised in 1957 with the signing of an agreement between the two nations to engage in peaceful nuclear cooperation for a period of ten years.[20] As a part of the deal, the US government presented South Africa with a nuclear reactor for research purposes, named SAFARI-1, just outside the capital of Pretoria, as well as the enriched fuel needed to power it.[21] The reactor and fuel came with safeguards and restrictions designed to prevent the research from being used in a military capacity.[22] Clearly there was close nuclear cooperation between the United States and South Africa in the late 1940s through to the end of the 1950s. The South African government's policy of institutionalised racism known as Apartheid, however, helped complicate matters for the United States.

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[18] Borstelmann, *Apartheid's Reluctant Uncle*, 4.
[19] Moore, *South Africa and Nuclear proliferation*, 11-12.
[20] Martha S van Wyk, "Ally or Critic," 197.
[21] Ibid., 197-198, and Polakow-Suransky, 40.
[22] Martha S van Wyk, "Ally or Critic," 197.

Initially, the issue of Apartheid did not bother US foreign policy makers, many of whom believed in the idea of racial hierarchy upon which it rested.[23] By the end of the Truman administration, however, the United States was faced with increasing calls to pressure colonial governments to grant their colonies independence. While public opinion in the US was widely turning against colonization, it was colonized peoples across the colonial world who were making the most vigorous demands for liberation. The US State Department feared that these colonies, upon being granted their freedom, would turn to communism, and expressed these fears with veiled racial overtones about colonial peoples not being ready to govern themselves.[24] The United States, therefore, began to make allies among the white minority leadership in many colonised countries, but particularly with South Africa. By the early 1950s, the NP government, under Prime Minister DF Malan, had made clear that they did not mind trampling the constitution should it stand in the way of their vision of a whites-only African state.[25] Thus, the balance that the Truman, and later Eisenhower administration tried to strike between condemnation of colonialism while maintaining friendly relations with the minority government was most evident in their dealings with South Africa.[26] The spectre of Apartheid loomed large over dealings between South Africa and the United States.

Indeed, in the 1960s this specter began to have consequences for South Africa's relationship with the United States, particularly with the 1960 election of John F Kennedy. Earlier that year, South African police killed 69 and wounded over 100 peaceful protesters in an event which would come to be known as the Sharpeville Massacre. Despite this atrocity and the obvious possibility of further escalation and even civil war, the Kennedy administration

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[23] Borstlemann, *Apartheid's Reluctant Uncle*, 39.
[24] Ibid., 178.
[25] Ibid., 167-168.
[26] Ibid., 144.

attempted to strike a balance between public criticism of and quiet support for the Apartheid government. For example, the United States used the forum of the United Nations (UN) to denounce Apartheid, while quietly informing the NP government that there were in fact many areas where the United States and South Africa could cooperate.[27] Nuclear technology was one such area, as many South African scientists trained in the United States over the course of the 1960s.[28] The 1960s, however, did not represent a mere continuation of the normalised relationship between the South African and US governments. South Africa was beginning tentative explorations of weaponising its nuclear capability. In order to do this, the South African government had to keep it a secret from the United States. The relationship between South African and the US governments was changed further, as the United States began weaning itself of South African uranium in favour of supplies in Canada, Australia, and the United States.[29]

The US government's diversification of its uranium supply away from South Africa led to increased criticism of South Africa's policy of Apartheid from the United States. One example was an arms embargo instituted against South Africa by Kennedy in 1963, which was followed by a voluntary one from the UN. It is important to note, however, that Kennedy made this move primarily in order to pacify anti-Apartheid activists within the United States. This embargo represents, however, an important turn in the relationship between South Africa and the US government. Part of the reason Kennedy undertook this embargo was to appease new African countries that were gaining their independence from former colonial masters, and sought support from the United States in their quest against Apartheid.[30] These newly independent African

[27] Martha S van Wyk, "Ally or Critic," 198.
[28] Ibid., 198 and Helen E Purkitt and Stephen F. Burgess, *South Africa's Weapons*, 34/37.
[29] Sasha Polakow-Suransky, *The Unspoken Alliance*, 43.
[30] Martha S van Wyk, "Ally or Critic," 199.

nations and their concerns regarding Apartheid remained an issue for US presidents, including Carter, until Apartheid fell in 1994.

The late 1960s represented a crucial moment in South Africa's nuclear weapons development. In 1965 a prominent member of South Africa's Atomic Energy Board (AEB) named Andries Visser commented publicly that South Africa should develop a nuclear weapons arsenal. The US government did not react to this comment.[31] Visser's remark, however, reflects a growing trend in South Africa by the 1960s, in favour of developing nuclear weapons. Initially, this development was aimed at the production of a peaceful nuclear weapon that could be used for non-military purposes. Yet the political situation in Southern Africa was evolving, and not in favour of the NP government. Throughout the 1960s the Soviet Union had been using the forum of the UN to show international solidarity with the newly independent countries of Southern Africa. The resulting political inroads the Soviet Union made with many of South Africa's neighbours made the NP government nervous. The government also worried about hostile states developing or acquiring nuclear weapons before South Africa could.[32] These political events of the 1960s gave the South African government motive to pursue a nuclear weapon. South Africa also had some of the richest uranium deposits in the world, and the experience with uranium enrichment the US government had provided from the 1950s had given nuclear technicians both the aptitude and much needed experience in the nuclear field, particularly with nuclear enrichment.

As a result of the increased interest in nuclear technology by South Africa, the late 1960s resulted in a flurry of activity in the field. In 1967, South Africa developed its own nuclear reactor, Safari-2, as a direct result of research from the Safari-1 reactor ten years prior. This

[31] Ibid., 199, and Anna-Mart van Wyk, "Apartheid's Atomic Bomb," 102.

reactor was not designed for weapons purposes, but rather for research. Like Safari-1, the United States, once again, supplied the fuel.[33] This fuel came as part of the 1957 deal between the United States and South Africa to supply uranium to Safari-1, a deal which was renewed by the Johnson administration for a further ten years in 1967.[34] The following year, the UN created the Non-Proliferation Treaty (NPT), which aimed at curbing nuclear proliferation through the voluntary commitment of nations which did not yet have nuclear weapons to not pursue their development.[35] South Africa did not sign the NPT until 1992.[36]

South Africa's nuclear development, and particularly its nuclear weapons development, began to increase at a dramatic pace during the 1970s. The decade began with an announcement by Balthazar Johannes (John) Vorster, the South African Prime Minister, that South Africa would soon begin the development of domestic uranium enrichment. This plant would also, according to Vorster, not be subject to any IAEA safeguards or inspections.[37] Similarly to previous announcements regarding nuclear development by the South Africans, the United States did little to dissuade the South Africans from their course of action, other than to simply refuse to join South Africa's uranium enrichment project unless it was regulated by IAEA safeguards. The South Africans refused and went ahead with their uranium enrichment plans.[38] With the source of enriched uranium secure, the South African government soon began secret investigations into

[33] J.D.L Moore, *South Africa and Nuclear Weapons*, 83-84.
[34] Martha van Wyk, "Ally or Critic," 199.
[35] Ibid., 199.
[36] Anna-Mart van Wyk, "Apartheid's Atomic Bomb," 102.
[37] J.D.L Moore, *South Africa and Nuclear Weapons*, 84, and Helen E. Purkitt and Stephen F. Burgess, *South Africa's Weapons*, 40.
[38] Anna-Mart van Wyk, "South African Nuclear Development," 1157.

nuclear weapons, particularly a gun-type nuclear device, which helped convince the government that a nuclear weapon was indeed feasible when it was tested with non-nuclear components.[39]

In the same year as this test, the CIA estimated in its classified *Weekly Surveyor* that South Africa would probably not develop nuclear weapons in the 1970s. The report also stated that South Africa's decision on whether to pursue nuclear weapons would hinge largely on the success of the non-proliferation campaign.[40] Also in the early to mid-1970s, the CIA ignored several warnings that South Africa was indeed developing nuclear weapons. The biggest came in April of 1975 when the *Los Angeles Times* reported that the United States had been selling highly enriched uranium to South Africa unabated for years.[41] Thus, US intelligence seriously underestimated South Africa's nuclear weapons development.

For its part, the Nixon administration regarded the NP government as a key regional ally. This came as part of Kissinger and Nixon's politically and harshly practical view of the world, and their desire to shore up regional allies around the globe following the Vietnam War. South Africa, in the early 1970s at least, seemed politically stable and was strongly opposed to Communism, both factors the Nixon government wanted in a regional ally.[42] By the time Gerald Ford took over after Nixon's resignation, the US government's ties with South Africa as a regional ally had taken a key turn as the Ford administration secretly helped South Africa in its role in the Angolan Civil War beginning in 1975. Indeed, such cooperation is given by Martha S van Wyk as a possible reason for the CIA to deliberately underestimate, or even turn a blind eye to, South African nuclear weapons development, which was well underway by 1975.[43] The South

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[39] Ibid., 1157; for specific information regarding the enrichment process and types of nuclear weapons, see J.D.L Moore, *South Africa and Nuclear Weapons*, 1-10.
[40] Martha S van Wyk, "Ally or Critic," 203.
[41] Ibid., 204.
[42] Ibid., 199-200.
[43] Ibid., 205.

African Defense Force (SADF), with the backing of the United States, entered Angola in October of that same year, intent on destroying the communist presence there.[44] On November 7, however, 652 Cuban special forces troops were airlifted into Angola to support the Communist forces as part of Operation Carlotta.[45] These troops stalled the South African advance, which until then had been progressing rapidly, at the battle Quifangondo.[46] Suddenly the war had changed from one of rapid conquest to a proxy of the Cold War between the United States and its regional allies and Communist forces. As the situation began to escalate and echoes of Vietnam rang in the ears of US senators, a bill was passed preventing the Ford administration from sending aid to South Africa in the rapidly escalating Cold War battleground.[47] This seeming abandonment of South Africa by the United States in its moment of need only served to heighten the South African government's sense of global isolation, and added to the fears of an increasing communist presence in Africa.

By 1976, the policy of Apartheid had made South Africa a global pariah. The NP government felt isolated and concerned about its tenuous position in a part of the world where Communists were making steady gains. It is easy to understand in this context the government's rationale for wanting to develop nuclear weapons. At the same time that the SADF suffered defeat to Cuban forces in Angola, the Soweto uprising acted as a further homegrown motivation to step up South Africa's nuclear efforts in an attempt to garner lost prestige.[48] As a result of these setbacks, Vorster's government launched what he referred to as the 'total strategy.' The

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[44] Piero Gleijeses, *Conflicting Missions: Havana, Washington, and Africa, 1959-1976* (North Carolina: University of North Carolina Press, 2002), 298-299. https://ebookcentral-proquest-com.ezproxy.library.uvic.ca/lib/uvic/reader.action?docID=475182.
[45] Ibid., 305.
[46] Ibid. 310-311.
[47] Sasha Polakow-Suransky, *The Unspoken Alliance*, 86.
[48] Martha S van Wyk, 'Ally or Critic?," 206-207.

underlying idea of this strategy was that Apartheid was under attack from both internal and external pressures, and that the status of South Africa's white population must be maintained at all costs.[49] This strategy vowed to resist any external pressure to change South African policies. Amidst this tense atmosphere in South Africa, another development occurred in the United States, the election of Jimmy Carter to the presidency in November of that year.

[49] Ibid., 209.

The Kalahari Incident

Jimmy Carter won the 1976 election running as an outsider. The phrase 'Jimmy Who?' captured the tone of his campaign as a previously obscure candidate who had few ties with Washington or the establishment of the Democratic party there, having previously served as a Georgia state senator and governor.[50] After the Vietnam War and the scandal of Watergate, Americans were desperate for change. They found it in Jimmy Carter. Promising an end to the Machiavellian style of Nixon, Kissinger, and Ford, Carter was a candidate without a specific political ideology. He was a socially liberal, fiscally conservative Southern Baptist, who had made his name partly as an advocate for civil rights in Georgia. Besides working on the family peanut farm, he had also served as the commander of a nuclear submarine in the US navy.

Carter came to power with a mandate to clean up the presidency, both morally and environmentally, and showed his eagerness to do so on inauguration day when he walked to the White House. Carter announced his foreign policy to the American people later that year in a speech at Notre Dame University in May. Continuing the theme of a presidency based on and driven by American morals and values, Carter envisioned a new foreign policy founded upon the principles of American democracy, and aimed primarily at spreading these principles to oppressed people across the globe.[51] Casting foreign policy in such moralistic terms has led many people to examine Carter's foreign policy through the lens of human rights. In the case of South Africa, however, it is important to note that Carter decided to deal with the issue of nuclear weapons development separately from the NP government's system of Apartheid. Thus,

[50] Mitchell, *Jimmy Carter in Africa*, 3-4.
[51] Carter, "Address by the President," 7.

it is important to examine Carter's response to South Africa's nuclear policy in a similar light: by separating it from Carter's fight against Apartheid.[52]

The earliest document which mentioned South Africa's nuclear weapons development came in a policy review covering the entirety of Southern Africa. Called the "Study Prepared by the National Security Council (NSC) Policy Review Committee," this document was extensive in scope, and dealt mostly with the problems of the negotiations in Rhodesia, trade issues with the different countries of Southern Africa, and Apartheid in South Africa. South Africa's nuclear weapons program was mentioned early in the section "US interests," which states that "it is in our interest that South Africa's advanced nuclear technology be used for peaceful purposes."[53] Although the reference was brief, it shows that the Carter administration was aware of the potential for South Africa to weaponize its nuclear program. Moreover, an interagency assessment prepared for Carter during the Kalahari Incident mentions South Africa's "long-standing program to develop a nuclear weapon."[54] Thus, the Carter administration was clearly aware of South Africa's weapons development before the Kalahari incident, when he was first forced to confront clear evidence of this weaponization.

On August 2, 1977, the Soviet intelligence satellite Cosmos 932 returned to earth with detailed surveillance tapes of a South African military installation in the Kalahari Desert. The Soviets quickly interpreted the images as a nuclear test facility and passed this information to the Carter administration in a request for help in dealing with the situation. The Soviets believed

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[52] Anna-Mart van Wyk, "South African Nuclear Development," 1165.
[53] National Security Council. "Study Prepared by the National Security Council Policy Review Committee," in *Foreign Relations of the United States, 1977-1980, Volume XVI, Southern Africa*. Office of the Historian (Washington: undated), doc. 264. https://history.state.gov/historicaldocuments/frus1977-80v16/d264. P 758.
[54] "Inter-agency Assessment,"in *Foreign Relations of the United States, 1977-1980, Volume XVI, Southern Africa*: Office of the Historian (Washington: August 18 1977), doc. 293, https://history.state.gov/historicaldocuments/frus1977-80v16/d293. P 905.

Carter and his administration could prevent South Africa from conducting this test. In response, the administration sent an unmarked light aircraft, equipped with cameras, and two satellites over the facility. This reconnaissance confirmed the Soviet assessment that this facility had been constructed as a test site for nuclear weapons, as US analysts observed the two large tunnels which had been drilled into the ground in which the weapons were to be detonated.[55] The official story for the site's existence was a testing ground for the SADF's new rocket artillery gun. US and Soviet officials were correct, however, in their assessments that the true purpose of the site was as an underground nuclear testing facility.[56] There was, in fact, a cold test—or test involving a sub-critical amount of nuclear material—planned for August of that year. The test was halted, however, when those on the facility spotted the unmarked aircraft dispatched to surveil the site.[57]

In analysing Carter's response to the Kalahari Incident, it is important to note the nature and details of it. As previously stated, the administration had been aware that South Africa could develop nuclear weapons. Moreover, the US government had been aware of the Kalahari facilities' existence over a year before the incident.[58] Thus, the Kalahari incident did not take Carter entirely off guard, as South Africa's development of nuclear weapons and the potential of the Kalahari test site had been previously known to the United States. The details provided to the Carter administration were also swiftly verified by US analysts as a nuclear test site. Shortly after making contact with the Carter administration, the Soviets—as they had said they would do in their initial letter to the Carter administration—went public with the information they had on

[55] Richelson, *Spying on the Bomb*, 278-279.
[56] Polakow-Suransky, *The Unspoken Alliance*, 111.
[57] Ibid. 112-113.
[58] Richelsen, *Spying on the Bomb*, 278.

South Africa in the form of a newspaper article.[59] Carter had incentive to act on the information, as he faced pressure from the public as well as the Soviets.

All these factors meant that the administration's response to the Kalahari Incident was swift. On August 10, Deputy Secretary of State Warren Christopher sent a telegram to the embassy in Pretoria stating that ambassador William G. Bowdler was to explain to the South African government that a detonation of a nuclear weapon would result in serious diplomatic consequences, including the total severing of diplomatic ties between the United States and South Africa. Christopher laid out a list of talking points for Bowdler. These points made clear that Bowdler was to ask for clarification on the Soviet claim and were aimed at getting South Africa's signature on the NPT as a way of reassuring the world they were not developing nuclear weapons. "Regardless of accuracy of Soviet charge, [Christopher stated] we want to be on record as having missed no opportunities to caution SAG [South African Government] on potentially grave consequences of developing nuclear device."[60] Clearly the Carter administration was quick to use the Kalahari Incident as a means of cautioning the South African Government over the development of a nuclear weapon, making clear that the US government took its commitment to non-proliferation seriously. Despite such swift diplomatic action, Carter seems to have had at least some doubts regarding the nature of the Kalahari facility.

On August 11 Carter wrote in his diary that there was "evidence that the South Africans are preparing to test a nuclear device, as has been reported by the Soviets."[61] In spite of the

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[59] Ibid. and Warren Christopher, "Telegram From the Department of State to the Embassy in the Soviet Union," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: August 11, 1977), doc 288, https://history.state.gov/historicaldocuments/frus1977-80v16/d288, pg 287.

[60] Warren Christopher, "Telegram from the Department of State to the US Embassy in South Africa," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: August 10, 1977), doc. 287, https://history.state.gov/historicaldocuments/frus1977-80v16/d287, pg 895.

[61] Carter, *White House Diary*, 82.

independent verification of the test site by US analysts, Carter still seemed to have some doubts about the existence of South Africa's weapons program, once again writing in his diary the next day that "photography shows such a site may be in preparation."[62] Carter seems unable or unwilling to commit to saying on paper that he was certain of the validity of the site. Clearly, however, this uncertainty did not prevent him and his administration from acting swiftly against the Soviet claims, as the cable to Bowdler shows. In the case of the Kalahari incident, Carter had good reason to confront the South Africans.

In their bid to prevent South Africa's nuclear weapons test, the Soviets had taken their intelligence not just to the United States, but also to France, West Germany, and Britain.[63] Thus, the telegram to Bowdler represents part of a larger international effort to influence South Africa, and to prevent the weapons test. The message to Bowdler confirmed that the Soviets had notified these powers, and a later message to the embassy in South Africa on August 17 confirmed that US officials were "consulting in strictest confidence with a limited number of allies before deciding on next steps."[64] The State Department outlined these steps in a telegram to US embassies in France and Britain to ensure both those nations were delivering a consistent message to the Vorster government.[65] In this instance, the Carter administration was able to consult with multiple other allies and quickly confirm a strategy for preventing or at least postponing South Africa's nuclear weapons development. The administration was also under

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[62] Ibid.

[63] Martha S. van Wyk, *Ally or Critic*, 209.

[64] Cyrus Vance, "Telegram From the Department of State to the Embassy in South Africa," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: August 17 1977), doc 290. https://history.state.gov/historicaldocuments/frus1977-80v16/d290. P 900.

[65] Cyrus Vance, "Telegram From the Department of State to the Embassies in South Africa, France, and the United Kingdom," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: August 19 1977), doc 295, https://history.state.gov/historicaldocuments/frus1977-80v16/d295

pressure to act quickly on the issue. All indications showed that a nuclear weapons test by South Africa was imminent, and swift diplomatic action would be required to prevent this. The immediate effect of the administration's tactics was a reassurance by the South African government that their nuclear program was intended for peaceful purposes only and that no detonation had been planned. These, however, were lies.[66]

The fact that it was the Soviets who provided information on the test to Carter is also important, as it meant that the administration had no plausible deniability to say that it was unaware such a test would take place. As per their earlier statement, the Soviets released the information to the world via their news agency TASS.[67] This press release dramatically increased the pressure on the Carter administration. Carter not only had the tools to act swiftly, in the form of international cooperation and the ability to quickly confirm the Soviet allegations, but also the motivation to do so—in the form of the Soviet notification that they were going to inform the world via the media. The fact that the US government was aware of South Africa's attempts to create nuclear weapons and of the existence of the Kalahari site meant that the Kalahari Incident was not entirely unexpected by Carter and his administration. Therefore, Carter's response to the Kalahari Incident was in line with the newer academic view that he performed strongly in foreign policy issues for which he was prepared, and on which there was a consensus both within his administration and internationally, of opinion on how to respond to the immediate issue. His response to the long-term problem of South African nuclear weapons development, however, was not as effective.

Following the Kalahari Incident and South African assurances that it would not detonate a nuclear device, Carter began planning a long term strategy for dealing with South Africa's

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[66] Ibid., and Anna-Mart van Wyk, *Apartheid's Atomic Bomb*, 106.
[67] Christopher, "Telegram," doc 288, pg 897.

nuclear development.[68] Secretary of State Cyrus Vance informed ambassador Bowdler in the August 17 telegram that he should make clear to the South African government that the US government needed reassurances beyond the ones given by the South Africans that they would not detonate a nuclear device, either for military purposes or the more dubious claim that such an explosion could be harnessed for peaceful intent. Bowdler was to make clear that should a detonation take place, South Africa would be unable "to count on help from the Western powers in any field."[69] If South Africa did conduct the test, the United States would no longer be willing to help the South Africans against the bloc of African Nations in the UN general assembly, which was strongly hostile to South Africa. The main causes for concern, according to Vance, were South Africa's refusal to sign the NPT, and the fact that its uranium enrichment plant was not susceptible to IAEA safeguards. Addressing these concerns was the best way for the South Africans to show their intentions and allay the state department and Carter's fears regarding their nuclear weapons development.[70]

This strategy by the State Department was aimed at scaring the South African government into giving up its nuclear arsenal, but faced major problems, not least in the form of South Africa's new 'total strategy' as initially developed in the Vorster administration in 1977, and emerging even more strongly under PW Botha in 1978. As a result of this strategy, the South African government saw any pressure from the US government as a threat to the very existence of the NP government and Apartheid. Under this strategy, South Africa also began to cut all ties with western allies, such as the United States, who could potentially threaten Apartheid.[71] Thus, Vorster and the rest of his government were prepared for just such a move by the Carter

[68] Vance, "Telegram," doc. 290.
[69] Ibid.
[70] Ibid.
[71] Martha van Wyk, *Ally or Critic*, 209.

administration, so that when it came they were ready to issue denials regarding their nuclear program, while continuing covert development of nuclear weapons.

The US government was aware that this strategy of putting pressure on South Africa over its development of nuclear weapons may be effective for preventing nuclear tests and development in the short term, but would not cause the South Africans to end their weapons development. A US interagency assessment of South Africa's nuclear weapons program from August 18 states that there were no foreseeable "circumstances arising which would lead to a termination of their [the South African government's] long-standing program to develop a nuclear weapon."[72] This assessment concluded, however, that there may be some way to get South Africa to postpone a nuclear weapons test if Carter could indicate he was willing to change his policy and treat the South African government with less hostility while simultaneously suggesting that a nuclear test would threaten South Africa's standing in Southern Africa.[73] Following this advice, Carter adopted what Martha van Wyk has called the carrot-and-stick method of diplomacy, offering South Africa incentives to sign the NPT and threats if there were any signs of further non-peaceful nuclear development.[74] Carter saw this policy as a middle ground between actively aiding and abetting the South African government, and heaping pressure on it.

As far as the Vorster government was concerned, however, this policy offered far more stick than it did carrot. Indeed, a major part of the strategy relied on convincing the South Africans that the Carter administration was able to change its policy toward South Africa. It is important to bear in mind the enmity for Jimmy Carter held by the Vorster government. The

[72] "Interagency assessment," doc. 293.
[73] Ibid.
[74] Ibid., and Martha van Wyk, "Ally or Critic," 211.

same day that the Soviets provided the information to the United States regarding the Kalahari test site, Vorster delivered a speech in which he claimed that Carter's attempts to pressure South Africa over Apartheid would cause pandemonium in South Africa.[75]

This sentiment was on full display in Bowdler's meeting with the South African Foreign Minister Pik Botha. In his cable to Vance detailing the meeting Bowdler claimed that "Botha's initial reaction (to Bowdler's raising of the Kalahari test site) was one of outrage."[76] Thus, the South African government was in no mood to barter with the Carter government. This carrot-and-stick policy, then, provided the Vorster government with incentive to keep its nuclear program secret, while lying about its existence. It also gave the South Africans enough room to maneuver within the arena of international diplomacy, as can be seen by the exchange between Bowdler and the State Department following a second meeting between Bowdler and Botha. In this meeting, Bowdler stressed the importance of his previous messages that the administration wished to send a US inspection team to examine the Kalahari test site. To this, Botha and Secretary of Foreign Affairs Brand Fourie claimed that they would need more time to get permission for that, as they would need to consult with the military first. Bowdler pushed them for a reply within 24 hours, but the two South Africans claimed they needed at least a week.[77] In their reply to this message, the State Department said that it did not wish to put too much pressure on South Africa over the inspections and said that Bowdler should, instead, take a verbal reassurance from the South African government that it was not developing nuclear

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[75] Richelsen, *Spying on the Bomb*, 278.

[76] William Bowdler, "Telegram From the Department of State to the Embassies in the United Kingdom and France and the White House," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: August 18 1977), doc 294, https://history.state.gov/historicaldocuments/frus1977-80v16/d294. P 912.

[77] Cyrus Vance, "Telegram From the Embassy in South Africa to the Department of State," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: August 19 1977), doc 296, https://history.state.gov/historicaldocuments/frus1977-80v16/d296.

weapons.[78] Thus, Carter's long-term policy for dealing with South Africa's nuclear weapons was ineffective. Instead of a middle ground, it became a worst-of-both-worlds scenario. The immediate result of this policy was that it gave the NP government enough political cover to conceal its weapons program from the world for several years. It would take another major event to make both Carter and the world sit up and take notice of this weapons program once more.

[78] Cyrus Vance and Warren Christopher, "Telegram From the Department of State to Multiple Diplomatic Posts," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: August 20 1977), doc 297, https://history.state.gov/historicaldocuments/frus1977-80v16/d297.

The Vela Flash

In September 1979, the United States had three Vela satellites orbiting the earth at any given time, not quite enough to monitor the entirety of the earth's surface. One such satellite was Vela 6911. Vela 6911 was launched in 1969, and, by 1979, had outlasted its expected lifespan. Indeed, two of the satellite's sensors were out of operation at this time; namely those which detected electromagnetic pulses, including a nuclear electromagnetic pulse, and those which would have been able to pinpoint the exact location of any blast in the enormous area the satellite observed. The only working sensors on Vela 6911 at this time were two bhangmeters which were used to monitor variations of light intensity from the earth's surface. On September 22, the satellite was being monitored by technicians of the US Air Force Technical Applications Center, who watched as the bhangmeters detected two major waves of light from the earth's surface. Known as a double flash, such a reading is typical of a nuclear explosion.[79]

The fact that Vela 6911 was not in full commission at the time of the blast is problematic. For example, the blast itself could not be pinpointed exactly. Moreover, there was uncertainty within the administration about whether this was even a nuclear blast. The two working bhangmeters on Vela 6911 each detected slightly different signals. Normally both signals would have been the same, and the fact they were not cast doubt on the effectiveness of the signal.[80] The summary of the Special Coordination Committee (SCC) meeting held the same day as the detection, however, stated that—although there was "strong positive evidence" and "no negative evidence" a nuclear test occurred—there would be "a period of uncertainty in the next week" before the United States could confirm that a nuclear explosion had occurred.[81] In spite of this

[79] Richelson, *Spying on the Bomb*, 285.
[80] Weiss, *The 1979 Atlantic Flash*, 118.
[81] "Summary of Conclusions of a Mini-Special Coordination Committee Meeting," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington:

confirmation period, the committee believed the evidence they had was strong enough to warrant disclosing it to the world. Committee members believed that the administration had more to gain from such a disclosure, and little to lose, believing it was important that they control the release of the story.[82]

On September 22, Jimmy Carter wrote in his diary that "there was indication of a nuclear explosion in the region of South Africa—either South Africa, Israel using a ship at sea, or nothing."[83] This brief entry is all Carter wrote on the issue for that day, but it shows his sense of uncertainty. This sense of uncertainty won out within the administration too, as shown by the summary of the next SCC meeting the following day. This second meeting was very different to the one which occurred the day before. The discussion was no longer about strong evidence of a nuclear blast, but rather of "limited satellite detection information [which] suggests that a nuclear explosion...probably occurred."[84] The period of uncertainty, which had previously been only one week, was now extended to "at least several weeks to find out the exact location of the explosion and its probable author."[85] The recommendation of the committee was also no longer to release the data it had collected, but rather to make "every effort...to restrict circulation of this information and these decisions within the US government."[86] This shift came as a result of a lack of consensus in the administration as to whether the flash had actually been a nuclear explosion, and that people "realized they were just at the beginning of an investigation."[87]

September 22, 1979), doc 361, https://history.state.gov/historicaldocuments/frus1977-80v16/d361, pg 1086.

[82] Ibid. 1086-1087.

[83] Carter, *White House Diary*, 357.

[84] "Summary of Conclusions of a Mini-Special Coordination Committee Meeting," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: September 23, 1979), doc. 362 https://history.state.gov/historicaldocuments/frus1977-80v16/d362, pg 1088.

[85] Ibid. 1088.

[86] Ibid. 1089.

[87] Richelson, *Spying on the Bomb*, 286

Another SCC meeting the following month confirmed this policy of deferring a decision until more information had been obtained regarding the situation. Jerry Oplinger of the NSC summarized this meeting in a memo for Carter's National Security Advisor Zbigniew Brzezinski, stating that the US government should make "no approach... to the Soviets or to South Africa, and that no public statement should be made, unless there is a leak" to the press.[88] Just over one week later on 23 October, however, Oplinger wrote another memo to Brzezinski in which he stated in no uncertain terms that the SCC and NSC believed that the US government should "not hold up policy decisions any further awaiting new information."[89] Clearly officials in the government had grown tired of the administration's equivocation, and thought the incident was not being handled well. These officials would not have to wait long for a change of policy.

On October 26 ABC News journalist John Scali broke the news of the Vela Incident to the world. The next day there was a far greater sense of urgency in the State Department, which sent a telegram to the embassy in South Africa instructing Ambassador Bowland "immediately to discuss this matter at the highest level of the South African Government."[90] So important was this matter that, unlike during the Kalahari Incident, the State Department requested Bowdler deal mainly with the new South African Prime Minister PW Botha (unrelated to Foreign Minister Pik Botha who was still in his post). The main aim of this meeting was to provide the

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[88] Jerry Oplinger, "Memorandum From Jerry Oplinger of the National Security Council Staff to the President's Assistant for National Security Affairs (Brzezinski)," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: October 11, 1979), https://history.state.gov/historicaldocuments/frus1977-80v16/d363**,** 363 PG 1090.

[89] Jerry Oplinger, "Memorandum From Jerry Oplinger of the National Security Council Staff to the President's Assistant for National Security Affairs (Brzezinski)," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: October 23, 1979), doc. 364, https://history.state.gov/historicaldocuments/frus1977-80v16/d364**,** pg 1090.

[90] Cyrus Vance, "Telegram From the Department of State to the Embassy in South Africa," in *Foreign Relations of the United States, 1977-1980 Volume XVI, Southern Africa*: Office of the Historian (Washington: October 26, 1979), doc. 365, https://history.state.gov/historicaldocuments/frus1977-80v16/d365, pg. 1091.

administration in Washington with a clarification of the NP government's policy on nuclear explosives, and to seek assurances from the new administration that they would keep the promise of the Vorster government by not producing any nuclear weapons.[91]

It is important to note that Bowdler made sure, as per his instructions, to inform the South Africans that the US government was being deliberately vague in its assessment of which country was responsible.[92] This ambiguity was due to the United States' assessment that Israel may have been behind the nuclear test. Indeed, Sasha Polakow-Suransky argues that the United States was aware it was probably Israel, not South Africa, that was responsible for this test by the first week of October.[93] In his diary, however, Carter conceded only that there was "a growing belief among our scientists that the Israelis did indeed conduct a nuclear test explosion in the ocean near the southern end of Africa" on 27 February.[94] Although this diary entry could be just another example of Carter's uncertainty, the fact that the State Department sought reassurances from South Africa as to the nature of their nuclear program in the telegram of October 26 shows that the possibility of the existence of South Africa's nuclear program was still a concern to the administration at that time. Moreover, the public perception in the days following the leak was that South Africa was the most likely candidate, owing to its geographical location, and the later revelation by the *Washington Post* that the South African navy had undertaken exercises in the rough vicinity of the flash on September 22.[95]

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[91] Ibid. 1091-1092.
[92] Ibid. 1092.
[93] Polakow-suransky, *The Unspoken Alliance*, 138.
[94] Carter, *White House Diary*, 405.
[95] Jimmy Carter, "Interview with the President, Remarks and a Question-and-Answer Session With Editors and Broadcasters From Minnesota. October 26, 1979," *Public Papers of the Presidents of the United States* (Washington: United States Government Printing Office, 1980), 2047-2048 and Thomas O'Toole, "New Light Cast on Sky-Flash Mystery: Probers Shed New Light On Mysterious Sky Flash," *Washington Post*, Jan 30, 1980, A1/A6, https://search.proquest.com/docview/147165007/fulltextPDF/C72D7FC4E9184A82PQ/1?accountid=14846.

After the information leaked to the press, the White House responded by downplaying the evidence of a nuclear blast, stating that the government only had an "indication that a low-yield nuclear explosion occurred on Sept. 22."[96] The White House then followed this up by stating that "no corroborating evidence has been received to date."[97] The statement also claimed the government was "continuing to assess whether such an event took place."[98] Some of these attempts, however, only succeeded in further blurring of the facts. For example, the Air Force flew several missions to sample air for radioactive debris over possible test sites. These tests were unable to find any radioactive debris in the atmosphere. Despite complications such as these, the CIA concluded in December that a nuclear blast had indeed occurred.[99]

The nature of the Vela Flash was fundamentally different to the Kalahari Incident of two years before. There was no international coalition to create a consensus on the issue as there had been in 1977. There was also no immediate pressure put on the Carter administration the way there had been when the Soviets approached the US government with the information on the Kalahari test site. When the administration did come under pressure to act after the leak occurred, Carter took action. This action, however, was limited to asking the South African government for clarification of its nuclear policy, and the administration and State Department were left to postpone their action regarding South Africa while Carter attempted to gather more evidence and consider his options. To say that Carter's response to the Vela incident was solely the result of his tendency to study a matter carefully before committing to an action, however, is an oversimplification.

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[96] Bernard Gwertzman, US Monitors Signs of Atom Explosion, *New York Times*, Oct 26, 1979, A1, https://search.proquest.com/docview/123947902/fulltextPDF/56A9BDD6E65248A6PQ/1?accountid=14846.
[97] Ibid.
[98] Ibid.
[99] Polakow-Suransky, *The Unspoken Alliance*, 137.

Even after an interagency assessment concluded in December that the flash was the result of a nuclear blast, Carter continued to disagree, commissioning his own panel to investigate the incident. This panel came to be known as the Ruina panel after the MIT physicist Jack Ruina who headed it. It should be noted that the Ruina panel's purpose was not to investigate whether or not there was a nuclear blast on September 22, but rather to evaluate the Vela signal itself, and assess the likelihood that the signal had come from "natural causes."[100] To this end, the Ruina panel focused mainly on discrepancies between the two working bhangmeteres on Vela 6911, and even came to dismiss evidence of a nuclear blast presented by Puerto Rican scientists, who briefed the panel on an unusual ripple they had detected in the atmosphere on the morning of September 22 which moved from southeast to northwest.[101] When this report was finally filed, it stated "that the origin of the signal was close to the satellite rather than near the surface of the earth."[102]

Ever since the report was filed, academics and scientists have viewed it as an attempt by the Carter administration to cast doubt on the findings of the intelligence community that the Vela Flash was indeed a nuclear blast. The initial report was classified, and the only parts of it that were released stated that the signal probably came from a meteorite striking the satellite or another nearby light source. The meteorite theory was quickly dismissed by a Defence Intelligence Agency (DIA) report as having odds of 1 in 100 billion. The full Ruina report was only released as a retaliation to this DIA assessment.[103] The administration also ignored further evidence of a nuclear blast from other sources after releasing their report. For example, a study

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[100] *Ad Hoc Panel Report on the September 22 Event*, May 23, 1980, https://nsarchive2.gwu.edu//NSAEBB/NSAEBB190/09.pdf, pg 1.
[101] Polakow-Suransky, *The Unspoken Alliance*, 137 and Leonard Weiss, "The 1979 Atlantic Flash," 119.
[102] *Ad Hoc Panel Report on the September 22 Event*, May 23, 1980, https://nsarchive2.gwu.edu//NSAEBB/NSAEBB190/09.pdf, pg 2.
[103] Polakow-Suransky, *The Unspoken Alliance*, 138.

performed by the National Research Laboratory led by Alan Berman concluded in the summer of 1980 that a nuclear blast had indeed occurred.

This ad-hoc panel, as it was called, used evidence ranging from analysis of hydroacoustic signals detected by US hydrophones in the Atlantic at the time of the flash, to the finding of a professor at the University of Tennessee—Dr. Lester van Middlesworth—that the thyroid glands of sheep slaughtered in Melbourne, Australia, after the blast contained the fissile byproduct iodine-131.[104] Berman believed that this fissile material was probably consumed by the sheep in October following the Vela Flash; this was the only time van Middelsworth had ever encountered iodine-131 in his 25 years of studying sheep thyroid glands. Part of the report was the study of the atmospheric conditions over the South Atlantic on September 22, finding that a cyclone would have moved the radioactive cloud further to the east than had been anticipated by the navies air sampling missions. Subsequent flight path analysis confirmed that only one mission flew through this storm, and only after any radioactive particles contained within it would have decayed to non-detectable levels.[105] These findings explained why the Navy had been unable to find any nuclear debris in the atmosphere after September 22.

The findings of this report directly contrasted those of the Ruina report, commissioned by the White House. The Berman panel concluded it was most likely that a nuclear explosion had occurred over the South Atlantic on September 22. When the Berman report was released, the Carter administration prevented its findings from being revealed to the wider public. Berman was so incensed by the administration's seeming cover-up of the truth that he leaked the findings of

[104] Richelson, *Spying on the Bomb*, 309-310.
[105] Richelson, *Spying on the Bomb*, 288 & 308-309.

his report to *Science Magazine* in August of 1980. The magazine also noted that the White House had disputed these findings based on the hydroacoustic signal analysis.[106]

Even in the face of Berman's meticulous and detailed study, the White House continued to deny that there had been a nuclear test. The administration's initial deferment of a decision on policy may be chalked up to its lack of internal consensus on the true nature of the event. The fact that Carter continued to drag his feet for almost a year after the detection of the Vela Flash and in the face of overwhelming evidence, however, indicates that he deliberately tried to cast doubt on the event to avoid having to act on it.

The Vela Incident was so problematic for Carter because, if it turned out to be a South African nuclear test, it represented the failure of years of policy to try to prevent South Africa's nuclear proliferation. Thus, it made sense that he would try and cast doubt on this event a year before he hoped to win reelection with the Camp David Accords as his administration's main foreign policy achievement. Confirmation of the Vela Flash as a nuclear test would also provide ammunition to Republicans in the senate whom Carter needed to ratify the SALT II treaty—which, it was hoped, would be another foreign policy achievement for Carter to tout in the 1980 election.[107] Regardless of whether this incident was a South African test, however, the fact of the matter is that Carter's policies failed to prevent South Africa developing nuclear weapons.[108] This failure occurred, as previously stated, because of Carter's policy of using a carrot-and-stick approach to try and coax South Africa away from its nuclear arms development.

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[106] Ibid., 311.

[107] Hersh, *The Samson Option*, 275.

[108] The consensus within the academic community today is that the Vela Flash was some kind of joint nuclear test between both Israel and South Africa. South Africa also later developed six and a half gun-type nuclear weapons of its own. The NP government dismantled these prior to the fall of Apartheid and the implementation of majority rule in the early 1990s, making South Africa the first country to voluntarily surrender its nuclear weapons capability.

The incident surrounding the Vela Flash is a good example of a major obstacle Carter faced in all his dealings with South Africa: a lack of leverage. The less invested the United States became in South Africa, such as when it shifted its uranium source from South African mines to focus on a more domestic supply, the less power it held to influence the country. It is also true that, by the time Carter came to power, South Africa was already invested in constructing nuclear weapons. The Vorster government's implementation of a 'total strategy' in 1977 only made matters worse for Carter, as it made the NP government view any policy by the US government as suspicious, and set it on a definite path to nuclear weapons development. This lack of leverage meant it was impossible for Carter to force the government's hand over nuclear weapons, and the South African Government knew it. In the meeting of October 26, Bowdler described Pik Botha as "friendly and attentive but inclined to... repeat his press line that the U.S. only gave an impression of weakness by appearing so nervous about the matter."[109] Clearly Botha was feeling quite secure in his government's position vis-a-vis the Carter administration.

[109] Bowdler and Edmonson, "Telegram," doc. 366, p 1093.

Conclusion

Carter's response to the Kalahari Incident was rapid and decisive, as he knew that the Soviets would release this information to the press. This response was effective in preventing the immediate test planned by South Africa for the Kalahari. His long-term strategy, however, was less effective. The main problem Carter faced in dealing with South Africa was a lack of leverage to enforce his demands. The response to the Kalahari Incident, of threatening to cut off all diplomatic ties with South Africa, would not be sufficient to keep the South Africans in line over the long term, particularly after the government's implementation of a 'total strategy' which aimed at preparing South Africa for just such a scenario. Carter's decision to use the carrot-and-stick method of coercing South Africa away from its nuclear weapons development was not effective. It gave the South African government motivation to lie about its intentions while also providing it enough political 'slack' to do so, as occurred after the Kalahari Incident when the administration backed down from its request to send outside investigators to the scene of the test site and settled for a verbal assurance from the South African government.

As seen by Botha's comments to Bowdler after the Vela Flash, the South Africans viewed US policy as weak and vacillating. Carter's policy clearly failed to sway the South African government, which made no attempts to end its nuclear program. The Vela Flash represented the failure of this policy, as it appeared that South Africa had joined the nuclear club. There was uncertainty regarding the event from the beginning, however, with the bhangmeters producing slightly different signals. This uncertainty did not help Carter's ability to make a decision, but he certainly exploited it as a cover for not acting on the incident which was politically inconvenient for him.

It would be easy to say, at this point, that Carter's different reaction to these two events shows that he did indeed become more hardline towards the end of his term, and that he came to accept South Africa's nuclear weapons program. The fact that these two events were so different in nature, however, makes it hard to say this for sure. Carter may have reacted differently to the Kalahari Incident had he not been given such strong motivation to act firmly on the information provided by the Soviets. Likewise, he may have acted differently on the Vela Incident had he been provided with more information and greater certainty that a nuclear blast had indeed taken place, as he had in the case of the Kalahari Incident.

The Kalahari Incident and Vela Flash were two very different events, and Carter responded differently to them. There was, however, a common thread within his responses: his constant caution. In the first instance, Carter flew two satellites and a light aircraft over the Kalahari Test site in order to confirm the Soviets claims, and even then expressed that he was not entirely sure of the validity of the test site. After the Vela Flash his immediate reaction was to hold off until more evidence could be gathered, and, once again, expressed concerns regarding the validity of events. This caution was apparent in Carter's long-term policy for handling South Africa's nuclear weapons development, as he chose to pursue one which aimed at balancing pressuring the NP government over nuclear weapons with the appearance of pursuing friendlier relations with South Africa. This policy, however, failed to provide Carter with any leverage over South Africa, and actually gave the South African government incentive to cover up their continued nuclear weapons development while simultaneously providing them with enough political cover to do so.

Ultimately Carter was not reelected, and the man who took his place had no qualms over treating South Africa and its white nationalist government far more sympathetically. Ironically, it

may have been more effective for Carter to have approached South Africa the way Ronald Reagan did. More involvement, particularly with South Africa's nuclear development, may have provided him with the leverage he so desperately needed when dealing with South Africa. At the least, cooperation with South Africa, though this would have had to be performed in secret, could have given Carter a greater rapport with the NP government and potentially help him leverage a more flexible timeline on South Africa's nuclear development.

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