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APARTHEID’S ATOMIC BOMB: BIRTH AND DEMISE¹

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The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) opened for signature on 1 July 1968. Prior to this, South Africa complied with early international non-proliferation norms and supported the emergence of a global non-proliferation order. This is, for example, exemplified by the country’s support of the International Atomic Energy Agency (IAEA), of which it became a founder member of in 1957. By 1968, South Africa was also eight years into a nuclear-related Research and Development (R & D) Programme, approved by Cabinet on 5 September 1959.² This Programme prioritised, inter alia, the implementation of nuclear power in the country. It also resulted in the establishment of a Nuclear Power Committee, which included members of the Atomic Energy Board (AEB), the state-owned electricity utility Eskom, and representatives from the industrial and mining sectors. It was upon the recommendation of the Nuclear Power Committee that the South African government decided to construct two nuclear power reactors at the Koeberg Nuclear Power Station (hereafter Koeberg).³

Barely two months before the NPT’s opening for signature, the AEB in May 1968, published a feasibility study, Report on the investigation into the possible introduction of nuclear power in the Republic of South Africa.⁴ The report resulted from a request by the Minister of Mines and Planning, J.F.W. Haak, in June 1965 to investigate the possible application of nuclear power in South Africa. Although this report focused on the possible use of nuclear energy for electricity generation, it laid the political foundation for South Africa’s eventual nuclear weapons programme and the ‘nuclear devices’ President F.W. de Klerk referred to in 1993, when the existence of the program was publicly revealed for the first time.⁵

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¹ This paper is largely based on an article I co-authored with Jo-Ansie van Wyk: ‘From the nuclear laager to the non-proliferation club: South Africa and the NPT’, South African Historical Journal, 13 March 2015, http://dx.doi.org/10.1080/02582473.2014.977337. The author also wishes to extend recognition and thanks to the Carnegie Corporation of New York’s grant to the Nuclear Proliferation International History Project, which made the research for this paper possible.


³ Steyn et al. Nuclear Armament and Disarmament, 32.


Following the NPT entering into force in 1970, South Africa followed a policy of deliberate nuclear opacity.\textsuperscript{6} The latter refers to a situation where the existence of a nuclear weapons programme “has not been acknowledged by a state’s leaders, but where the evidence for the existence of such a programme is enough to influence [...] other nation’s perceptions and actions.”\textsuperscript{7} In this respect, the notion of nuclear opacity sheds light on South Africa’s position on the NPT, as the country never confirmed the existence of its nuclear weapons programme. Moreover, in terms of the NPT at the time of its opening for signature and entry into force, South Africa was categorised as a non-nuclear weapons state (NNWS). In addition to this, South Africa was benefitting from assistance provided by nuclear weapons states (NWS), most notably France and the United Kingdom (UK), in the development of South Africa’s nuclear capability. More pertinent to this study, South Africa refused to sign and ratify the NPT.\textsuperscript{8} Ironically, as is the case today, South Africa argued that the NPT is inherently discriminatory, albeit on different grounds.

On 8 July 1991, South Africa acceded to the NPT, signalling a departure from its pre-1990 nuclear diplomacy and the country’s acceptance of the nuclear norms enshrined in the NPT. Moreover, the signing of the NPT paved the way for international recognition and the IAEA verification process in the country, which was successfully concluded by 1993. With this completed, South Africa was recognised as a unique case of nuclear roll-back.

The objective of this paper is three-fold, namely to describe South Africa’s position on and involvement in the multilateral negotiations leading to the NPT’s agreed text, and South Africa’s perspective on the nascent non-proliferation agreement. In order to achieve this, the contribution is chronologically limited to the period 1959 until 1991. Secondly, the domestic and international motives, intentions and incentives that shaped South Africa’s refused participation in the new regime until its ratification of the NPT in 1991, are analysed. In the third instance, the contribution aims to address an under-researched area in South Africa’s nuclear history, namely its accession to the NPT, thereby contributing to historical knowledge on this era.

\textsuperscript{6} The concept of nuclear opacity is preferred to the concept nuclear ambiguity. The latter refers to the uncertainty of the presence of a nuclear weapons programme, or the indecision by decision-makers in respect of the utility, efficacy and morality of nuclear weapons.


\textsuperscript{8} AEB, Report on the investigation into the possible introduction of nuclear power in the Republic of South Africa, 2.
South Africa’s position at the start of the negotiations on a non-proliferation treaty

Despite its original role in the founding of the IAEA, when negotiations for a non-proliferation treaty started in 1964 in Geneva, South African Prime Minister Hendrik Verwoerd initially decided against South African participation. At the time, the South African government was increasingly facing international condemnation and isolation, coupled with a perceived communist infiltration of Africa and a deteriorating internal situation. After the banning of the African National Congress (ANC) and the Pan-Africanist Congress (PAC), and the imprisonment of its most important leaders, resistance and suppression activities became increasingly violent. In typical ‘siege mentality’ fashion, Verwoerd defiantly declared that it had to be done to repel any “African nationalist-communist invasion”, and “to hold vast and enormously rich South Africa as a last redoubt of Christianity and western civilization against a reversal to primitiveness and chaos.”\(^9\) Another factor that possibly played a role as crucial impetus for a decision by Pretoria to keep its nuclear options open and not participate in the treaty negotiations was a perception, as cited in both South African and American archival documents, that hostile African nations may develop or acquire nuclear weapons and thus threaten South Africa.\(^10\) It would therefore appear at this early stage, South Africa wanted to keep its options open, rather than immediately opting to strengthen the non-proliferation regime and in so doing, possibly keeping other African states from proliferating. Other evidence also points to this. In fact, from this point onward, one notices a diplomatic cat-and-mouse game and seemingly contradictory statements on a nonproliferation treaty from the side of Pretoria. For example, during 1964, there was a rumor that France had offered to assist South Africa in developing an atomic bomb. This elicited a categorical denial by the South African Deputy Secretary of Defense, who emphasized that Pretoria had decided it would not attempt to build an atomic bomb.\(^11\) Future South African Defense Minister Magnus Malan contradicted this, writing that “the development of South Africa’s own nuclear explosive capability dates back to the 1960s.”\(^12\) However, seemingly contradicting himself, Malan quickly added: “this nuclear explosive capability led to an enquiry in 1969 to determine how this development could be utilized for peaceful purposes … [such as] the mining industry, the preparation of underground oil storage facilities and with the dredging of harbors”\(^13\) - in other words, mimicking the United States’ (US) Ploughshare Programme.\(^14\)

\(^11\) DNSA, ‘Factors which could influence national decisions’.
\(^12\) M. Malan, My life with the SA Defence Force (Pretoria: Protea Boekhuis, 2006), 213.
\(^13\) Ibid.
Former South African Navy Commodore turned Soviet spy Dieter Gerhardt ascribes a more sinister meaning, contending that South Africa already began to develop an independent nuclear option in 1964.\textsuperscript{15}

Other possible confirmations of considerations beyond peaceful uses of nuclear explosives included comments by AEB spokesman W.L. Grant, in 1965, that South Africa had the technical ability to develop nuclear weapons.\textsuperscript{16} Another AEB member, Andries Visser commented that South Africa should have a nuclear arsenal for prestigious purposes and to prevent aggression from Afro-Asiatic states, which at the time vocally expressed their opposition to South Africa’s apartheid domestic policies.\textsuperscript{17} Yet, in 1965, South Africa voted in the United Nations (UN) General Assembly for a draft resolution submitted by the eight non-aligned nations on the Eighteen Nation Disarmament Committee, which, \textit{inter alia}, urged all states to “take all steps necessary for the early conclusion of a treaty preventing the proliferation of nuclear weapons.”\textsuperscript{18} The South African delegation indicated that they voted for the resolution, as it “was entirely in line with our basic approach to the question of disarmament.”\textsuperscript{19}

Upon closer inspection of South Africa’s nuclear diplomacy at this point, it becomes clear that perceived domestic and regional geostrategic events combined to push the apartheid regime into a \textit{laager}.\textsuperscript{20} Indeed, the early 1960s marked a point in South Africa’s nuclear history where one notices a confluence of commercial, research and development activities, kick-started by uranium exports to Western countries for their nuclear weapons programs, and “the evolvement of the security situation in Southern Africa since the end of World War Two.”\textsuperscript{21} This situation would lead to calculated political decisions and strategizing to counter the increasing isolation of South Africa. The birth of this situation can be traced back to two accusations against Pretoria at the UN: the racial policies of successive South African governments, and South Africa’s continuing administration of South West Africa.

\begin{itemize}
\item \textsuperscript{14} Anna-Mart van Wyk discussion with Johan Slabber, 14 December 2012. Professor Slabber, an engineer, was in charge of developing South Africa’s first nuclear device in the 1970s. He confirmed Malan’s view of peaceful purposes, indicating that from the late 1960s, South Africa followed a program called ‘Peaceful Explosives’.
\item \textsuperscript{15} Anna-Mart van Wyk discussion with Dieter Gerhardt, 5-6 February 2012; R.Bergman, ‘Treasons of conscience,’ \textit{Mail and Guardian}, 11-17 August 2000.
\item \textsuperscript{16} K.F. Nyamekye, Chairman of the Sub-Committee on the Implementation of United States Resolutions and Collaboration with South Africa, Special Committee Against Apartheid, ‘South Africa’s nuclear build-up: A threat to International Peace,’ October 1978.
\item \textsuperscript{17} Richelson, \textit{Spying on the Bomb}, 243.
\item \textsuperscript{18} DIRCO, Armament/Disarmament, File 32/3, Volume 1, 16 February 1962 – 20 September 1966, Provisional Agenda: 21\textsuperscript{st} Session of the General Assembly, 1965.
\item \textsuperscript{19} \textit{Ibid}.
\item \textsuperscript{20} \textit{Laager} means enclosure. It refers to a circle of wagons; the traditional encampment and defensive position adopted by the Voortrekkers. Combined with mentality, the term is used to describe the notion of self-isolation from external influences. Jean du Preez and Thomas Maettig, ‘From Pariah to Nuclear Poster Boy,’ in William C. Potter and Gaukhar Mukhatzhanova, eds, \textit{Forecasting Nuclear Proliferation in the 21\textsuperscript{st} Century: A Comparative Perspective}, Volume 2 (Stanford: Stanford University Press, 2010), 432.
\item \textsuperscript{21} Steyn et al. \textit{Nuclear Armament and Disarmament}, 1.
\end{itemize}
(contemporary Namibia). Following the Sharpeville massacre on 21 March 1960, in which a peaceful PAC-led protest against repressive pass laws led to bloodshed when the police panicked and opened fire, Prime Minister Verwoerd moved quickly to entrench apartheid and militarize the country in a manner unprecedented for peace time. Verwoerd also moved quickly to declare South Africa’s complete independence from Britain, by declaring South Africa a republic on 31 May 1961. This coincided with the launch of the ANC’s military wing, Umkhonto we Sizwe (Spear of the Nation, or MK), which would carry out numerous sabotage attacks against the apartheid government in the years to come. Pretoria’s answer was to strengthen its military and security establishment and crack down more harshly on dissidents. In 1963, it struck an almost fatal blow to the ANC leadership with the Rivonia arrests and resultant life imprisonment of eight leaders, including the famous ANC leader Nelson Mandela.22

Against this backdrop, one sees the entry of the Soviet Union; Pretoria’s foe for the next three decades. Following Nikita Khrushchev’s January 1960 declaration of the "USSR’s most favorable attitude to national liberation wars"23 the policies of the apartheid regime and the resultant debates in the UN provided the Soviet Union with a “platform of solidarity with the Third World.”24 By now, South Africa’s racial policies had become the target of pro-Soviet African and other Third World countries. The establishment of the Non-Aligned Movement (NAM) in 1955 and the Organisation of African Unity (OAU) in 1963 and its solidarity with Blacks in South Africa contributed to this. Moreover, the OAU took a strong anti-nuclear stance with its position on the denuclearization of the African continent.25

At the time (1964), a secret US Department of State background paper suggested that indications of hostile African nations pursuing nuclear weapons development or acquisition programs, along with factors such as latent fears, and the desire for a strong deterrent, could prompt Pretoria to develop a prototype weapon within five years (i.e. 1969), and that such a decision would not easily be altered by external sanctions.26 The State Department’s analysis hit the figurative bull’s eye. Pretoria openly expressed its concerns about the possible introduction of nuclear weapons in Africa by states like Egypt, who was quite vocal against South Africa in the UN, already had a Soviet-supplied nuclear reactor, and had been

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23 Ibid.
26 DNSA, Nuclear Non-proliferation collection, document no. NP10179, Department of State Secret Background Paper, ‘Factors which could influence national decisions concerning the acquisition of nuclear weapons,’ 12 December 1964.
pursuing a nuclear weapons program since 1954, or “by other powers using Africa as a base,” with specific implication of the Soviet Union. In the case of Egypt, a Soviet-supplied research reactor, “missiles of a 600 mile range, and strategic bombers which brings the RSA within operational radius” were specifically cited as areas of concern. While acknowledging that Egypt may be lacking nuclear scientists adept in bomb making, Pretoria further argued the possibility of ‘importing’ scientists and engineers.

It should be noted that while the negotiations for the future NPT was underway, Pretoria was also involved in negotiations with Washington over the renewal of the bilateral peaceful nuclear collaboration agreement, originally signed in 1957, and the continued supply of small quantities of highly-enriched uranium (HEU) for its research reactor, the South African Fundamental Atomic Research Installation (SAFARI-I), that South Africa acquired from the US in the early 1960s. Initially, the Johnson Administration was reluctant to renew the contract, given the increasing isolation and condemnation of South Africa in the UN. Eventually, the contract was renewed for a further ten years. Washington’s rationale for the renewal was mainly premised on the fact that South Africa had agreed to a policy of requiring safeguards on uranium exports, consistent with the US “position on safeguards under the NPT”, while permitting the continuation of IAEA international safeguards over the South African nuclear research program. The latter was specifically aimed at assuring “other African States and the rest of the world that there is no military diversion.” These aspects would backfire, however. Even though equipment and uranium that were supplied by the US were under IAEA safeguards, and Pretoria in 1968 voiced support for a U.N. General Assembly resolution on a treaty preventing the proliferation of nuclear weapons – and thereby contradicting Verwoerd’s initial refusal in 1964 to participate - it would ultimately refuse to sign the NPT for more than two decades.

By 1968, the intensification of the Cold War and the increase in the number of states with a nuclear weapons capability culminated in the signing of the NPT in 1968 and its entry into force in 1970. However, in 1970, instead of signing the NPT, South African Prime Minister John Vorster launched a new uranium enrichment process that was low in capital cost, and for which a pilot enrichment plant would be build at Valindaba, next to Pelindaba. The

27 Ibid.
29 Ibid.
31 Ibid.
announcement raised some eyebrows in the international community, as it was widely believed up to that point that the ability to enrich uranium for nuclear weapons or nuclear power, was limited to those states who have acquired and tested nuclear weapons by 1970 (i.e. US, Britain, France, Russia, and China). Whether the enrichment process was part of Pretoria’s plans for peaceful nuclear development and power generation at a planned nuclear power station at Koeberg, or a cover up for a nuclear weapons program – the argument can be made that the ability to enrich uranium would free South Africa from the threat that its nuclear growth could be blocked or influenced by outsiders. Indeed, an argument of the purpose of the enrichment pilot project ultimately being a process to acquire highly enriched uranium for weapons development may hold some water when one considers that in 1971, the AEB received permission to conduct preliminary theoretical investigations into a nuclear explosive device, indicating that the explosive power of a nuclear device was still very much of interest to Pretoria, despite a concurrent focus on a civilian power project.

When pressurized by the IAEA in 1970 over its reluctance to ratify the NPT, Pretoria explained that the country was reluctant to “surrender, almost irrevocably, long-held sovereign rights without having precise details of all the implications.” This view became South Africa’s nuclear mantra until it finally ratified the NPT in 1991. South Africa’s refusal to ratify the NPT meant that only the SAFARI-1 research reactor, inaugurated by Prime Minister Verwoerd in 1965, and its research quantities of HEU, as well as the future French-supplied power-generating reactors at Koeberg were covered by IAEA safeguards and inspections. All new facilities outside of these were not covered by safeguards. Yet, despite its unwillingness to ratify the NPT, South Africa continued to regularly report to the IAEA on some of its nuclear-related activities but not on, for example, the HEU facility at Valindaba and later at the Kentron Circle Facility (also known as Advena). In 1972, for example, Ambassador Roux informed the IAEA General Conference (GC) that the construction of South Africa’s small-scale enrichment plant was progressing and that South African advances in nuclear science had “far exceeded expectations.” In 1975, Roux informed the IAEA that “apart from developing its enrichment capability, South Africa was constantly intensifying its prospecting activities”; that the first phase of the country’s pilot enrichment

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34 DNSA, CIAOSI, document no. WM00143, Weekly Surveyor, South Africa release further information on their Isotope separation process; 12 October 1970.
plant was successfully commissioned; and that feasibility studies for the construction of a “full-scale commercial plant” were completed “satisfactorily.”

**Emergence of a perceived regional and internal communist threat**

Joseph Nye argued that South Africa, along with a handful of “major nuclear threshold countries” rejected the NPT because they considered it “discriminatory and hypocritical for the superpowers to maintain weapons denied to other states … just as the existence of nuclear weapons has produced prudence that has stabilized the U.S.-Soviet relationship, the spread of nuclear weapons to other countries would stabilize regional rivals.” This contention is debatable, but when one considers the significant geo-strategic changes in southern Africa from the mid-1970s, and Pretoria’s perception of a Communist take-over of the region, it might hold some truth. In particular, the civil war that broke out in Angola posed a threat to South Africa’s continued occupation of South West Africa, in addition to its perception of all radical black nationalist movements, including the exiled ANC and PAC, being totally under Soviet and Chinese control.

Prior to 1974, South Africa did not face a serious regional or internal threat - Umkhonto we Sizwe (the exiled ANC’s military wing) guerrillas were fairly easily kept from penetrating South Africa by the white minority governments in Mozambique, Rhodesia and Angola, and internal resistance against the apartheid establishment struggled to get off the ground. However, in 1974, following a coup in Portugal, the colonial governments in Angola and Mozambique were overthrown in wars of independence. In January 1975, Portugal invited the three main factions in Angola - the People’s Movement for the Liberation of Angola (MPLA), the National Union for the Total Independence of Angola (UNITA), and the National Liberation Front of Angola (FNLA), to participate in a transitional government. The details of this government was worked out in the Alvor Accords, signed on 15 January 1975. The Accords named the date of official independence of Angola as 11 November 1975. However, the agreement failed and fighting broke out between the MPLA (which had links with the Soviet Union) and the FNLA (which was center-left and sponsored by the PRC), leading to a civil war that would drag on for decades. In June 1975, the United States launched covert operations in Angola in support of the FNLA and UNITA, in an effort to prevent a Communist takeover. The MPLA, in turn, received supplies from the Soviet Union.

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38 J.S. Nye, Jr., ‘The logic of inequality,’ *Foreign Policy*, 59 (Summer 1985), 126.

through large-scale Soviet airlifts of materials, and repeatedly requested Cuban advisors to assist with military training. Cuban President Fidel Castro was initially not particularly enthusiastic about sending troops to Angola, fearing direct retaliation from the United States at a time when relations with the West were improving, in addition to straining the country’s already tight budget. When Moscow however offered to cover the monetary cost and assured Cuba that the United States was not likely to take action so soon after the Vietnam debacle, Castro agreed to send first advisors, and later, troops, to Angola. The first Cuban advisors arrived in August 1975.40

Concurrent to the Soviet and Cuban support to the MPLA, covert operations by both the United States and South Africa in Angola took off, in support of UNITA and the FNLA. On the side of the United States, support included $14 million for arms and planes, and operating costs. As far as Pretoria was concerned, the fall of the Portuguese colonial administration as an ally and the ensuing civil war in Angola posed a major threat to its continued occupation of South West Africa, and, most importantly, possible loss of a cordon sanitaire between South West Africa and the emerging black majority governments to its northern borders. Coupled with that, the People’s Liberation Army of Namibia (PLAN, formed in 1966), the armed wing of the South West African People’s Organization (SWAPO), could now cash in on the unrest in Angola and start operating from there into South West Africa. Prior to the Angolan Civil War, PLAN operated mostly from Zambia. Now, South Africa was faced with a hostile regime in Angola and a militarized border to cross in pursuit of PLAN guerillas. In addition, cadres of the exiled ANC were receiving military training in Soviet block countries as well as the People’s Republic of China (PRC) and they, too, could now potentially find refuge in Angola and infiltrate South Africa through South West Africa. South Africa hence faced opposition from three entities on the South West African/Angolan border: the MPLA, SWAPO and the ANC. In Pretoria’s view, all black nationalist movements under the influence of communist countries such as the Soviet Union, PRC or Cuba, had to be stopped before a total communist take-over in the region could be enacted.41

What ensued was a typical application of the national security model, in terms of Pretoria’s perception of a threat to its national security. Pretoria’s fear of a communist take-over in


southern Africa resulted in accelerated militarization and advances in its nuclear explosives program. The so-called Armstrong memorandum of the South African Department of Defence, dated 31 March 1975, perhaps best summarizes the prevalent threat perception of the apartheid regime at the time. The Memorandum concluded that the threat against South Africa had developed to the point of being a real one, in a relatively short term, and while the open use of nuclear weapons by powers that possess such weapons as well as the means to deliver them was discarded, Pretoria was concerned about armies assuming African identities, such as terrorist organizations, or ‘liberation armies’ acquiring such weapons and using it against South Africa. The argument was also build on a persisting analysis by the US Arms Control Agency that nuclear weapons would become available to sub-national groups such as terrorist or liberation movements within ten years; and that “the psychology underlying terrorism, modern revolutionary theory and Red Chinese doctrine would not preclude the use of nuclear weapons against the RSA [the Republic of South Africa].” In short, Pretoria appeared convinced that the threat of the use of nuclear weapons against South Africa could not be discarded, that the country’s defense strategy must take a potential nuclear threat into account, and that suitable steps should be taken to guard against such a threat.

Escalation of international concerns and domestic response

The 1970s saw the apartheid government increasingly becoming more insecure of what it perceived to be a Communist and international onslaught against it. This resulted in the formulation of an official government position of its threat perception and its response to it. The Total Onslaught Strategy, as it was known, became the vehicle to protect the white regime and secure its future through a comprehensive national security and military establishment. Although South Africa’s nuclear explosives program was officially still aimed at ‘peaceful uses’ until approximately 1977, its emphasis changed officially to a “strategic deterrent capability” after 1977. Consequently, in April 1978, Prime Minister John Vorster approved a three-phased nuclear deterrent strategy for South Africa (see Figure 1) and the construction of seven deliverable nuclear weapons. This strategy resulted in South Africa’s nuclear weapons program with the first device completed in 1978 and more devices

43 Ibid
44 Ibid
completed subsequently at the pace of approximately one per year, during the 1980s.\footnote{Ibid.} The first aircraft-deliverable vehicle was completed in 1982. Eventually, six nuclear devices were produced.\footnote{De Klerk, Matters relating to nuclear non-proliferation treaty, violence, negotiation and the death penalty. See footnote 5.}

**Figure 1: South Africa’s three-phased nuclear deterrent strategy\footnote{Ibid; Stumpf, Birth and death of the South African nuclear weapons programme.}**

<table>
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<th>Phase 1</th>
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<tr>
<td>Strategic uncertainty in which nuclear deterrent capability will not be acknowledged or denied.</td>
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<th>Phase 2</th>
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<tr>
<td>Should South Africa be threatened by Warsaw Pact countries through surrogate Cuban forces in Angola, covert acknowledgement to certain international powers, e.g. the US would be contemplated.</td>
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<th>Phase 3</th>
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<tr>
<td>In case partial disclosure does not result in the removal of the threat, public acknowledgement or demonstration by an underground test of South Africa’s capability, would be considered.</td>
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In the meantime, despite diplomatic efforts to influence South Africa to accede to the NPT, existing international concerns about its nuclear ambitions and intentions during the late 1970s escalated with the Soviet Union’s detection of the Vastrap nuclear test site in the Kalahari Desert in August 1977, and the detection by the US of a ‘double flash’ towards the end of the 1970s in the South Atlantic Ocean. By then, calls for South Africa’s suspension from the IAEA and UN sanctions against the country increased significantly. Western governments increasingly pressurised South Africa to ratify the NPT, arguing that South Africa’s suspension from the IAEA would undermine the Agency’s efforts to engage South Africa on the termination of the country’s nuclear weapons program which, by then, was widely accepted to exist. Parallel to these developments, the international community increased its efforts to isolate South Africa through a series of embargoes and sanctions.
Also coinciding with these events was the escalation of the activities of international Anti-Apartheid Movement (AAM) led by the ANC-in-exile against the South African government. The ANC, in particular, took on a strong non-proliferation position and soon made South Africa’s nuclear disarmament a major focus area of its liberation struggle and international strategy to change the constitutional dispensation in the country. Against the aforesaid, these developments signaled South Africa’s departure from the nuclear order established by the NPT, putting the country on a diplomatic collision path with the international community and the exiled liberation movements. Increased international pressure required South Africa to reconsider its position.

**Changes in South Africa’s position**

The late 1980s would signal a new phase in South Africa’s position on the NPT. However, in the early 1980s, the apartheid government under P.W. Botha was still very defiant. In particular, the ANC’s bombing of the Koeberg nuclear power station on 18 December 1982 initially affected the government’s position on nuclear matters. Following on the ANC MK’s attack on police stations, military installations and oil refineries, the Koeberg bombing was a major propaganda success for the ANC. However, the perception of the South African government was that, if the ANC could bomb a nuclear power station, it could also target other nuclear facilities. They were particularly concerned about the discovery of its new ultra-secret nuclear facility, built at the Kentron Circle Facility, where the third nuclear device was completed in 1982 and where research into implosions and thermonuclear technology and longer-range ballistic missile delivery systems was underway. A nuclear device was added to the arsenal approximately every eighteen months at this facility, matching the schedule of the enrichment plant at Valindaba. The site also served as the storage facility for the entire nuclear arsenal in special vaults.⁴⁹

Meanwhile, Pretoria took some early diplomatic initiatives such as communications, meetings and visits to engage with the IAEA and the international community on IAEA requirements and the NPT. During 1984, South Africa communicated to the IAEA its consideration to apply for IAEA safeguards for the Valindaba enrichment facility. Subsequent to meetings between the IAEA and South Africa in May 1985, an IAEA delegation visited the country in August 1985 and met with the AEC to discuss drafts of a safeguards agreement.

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with the South African government.\textsuperscript{50} Despite these early interactions, however, the South African government refused to accept the IAEA proposals, the reason being that it felt there had been no positive developments in the political and security situation in Southern Africa warranting a foregoing of the nuclear weapons program, or, indeed, and opening of the \textit{laager}. Instead, the apartheid regime faced the biggest threat ever to its security, both internally and externally. The exiled ANC accelerated its attempts to break Pretoria’s grip on South Africa through a new strategy involving mass mobilization and intensified armed struggle. At the same time, the war in Angola intensified and the number of Cuban forces sent to Angola increased steadily, leading to an escalation in South African military involvement in both Angola and South West Africa. In December 1983-January 1984, Operation Askari, a counterinsurgency operation aimed at disrupting the planned infiltration of SWAPO units into South West Africa, escalated into a conventional battle in which the South Africans were outnumbered six to one against an enemy which additionally enjoyed superior firepower by a tank company. The outcome was a realization by the SADF that its conventional capacity was questionable and this may well have spurred the more rapid development of a nuclear capability to maintain the myth that South Africa was militarily invincible. Indeed, by the mid-1980s, Pretoria decided “the strategy of political pressure and blackmail of the West should be driven home once again.”\textsuperscript{51} In 1985, Defence Minister Magnus Malan ordered the inspection of the underground nuclear test shafts in the Kalahari Desert, in case the implementation of step three of the earlier mentioned three-phased nuclear strategy was needed, i.e. a public announcement of the capability and possibly a nuclear test.\textsuperscript{52}

International pressures such as arms embargoes and economic sanctions further contributed to the South African government’s reconsideration of its non-proliferation position. Apart from the UN and others, the IAEA also took on a stricter position against the country. Despite the efforts of Western countries to influence South Africa to accede to the NPT, the IAEA Board decided to suspend South Africa from the Agency in June 1987 and recommended that the General Council should proceed with South Africa’s suspension from the Agency.\textsuperscript{53} One of the reasons why efforts to suspend South Africa took so long was the fact that South Africa was traditionally supported by some NWS on the General Council, e.g. the US. It was only by 21 September 1987 that State President PW Botha responded by

\textsuperscript{50} IAEA, \textit{South Africa’s nuclear capabilities: Report by the Board of Governors and the Director General}, 23 September 1985. \url{http://www.iaea.org}.
\textsuperscript{51} Hamann, \textit{Days of the Generals}, 168.
announcing his government’s intention to sign the NPT in an effort to prevent further international isolation, especially at the IAEA. Subsequent to President Botha’s announcement, diplomatic efforts shifted to influencing the South African government to accede to the NPT. One of the outcomes of these developments was evidence of more openness by the South African government in respect of its nuclear capabilities. Ending years of speculation on these issues, Foreign Minister Pik Botha admitted in August 1988 that South Africa had the capability to produce nuclear weapons but refused to admit that South Africa had produced nuclear weapons. Subsequent to Pik Botha’s statement, US diplomat Hank Cohen “kept up the pressure” on South Africa to sign the NPT. Botha later admitted that he knew of the existence of South Africa’s nuclear weapons programme since his appointment as Minister of Mineral and Energy Affairs. In fact, he had accompanied the South African President (PW Botha) to one of the facilities where South Africa’s six atomic bombs were kept.

Since Pik Botha’s statement in August 1988, a series of talks between South African officials and the NPT depository countries (the US, the Soviet Union and the UK) commenced at the IAEA headquarters in Vienna. Led by Pik Botha, the South African delegation was mainly interested in “clarifying the cost and benefits of adherence” as well as the responsibilities under the IAEA Safeguards Agreement. These commercial - rather than security and military - concerns dated back to 1968 when South Africa explained to the UNGA that it would not submit to IAEA safeguards as it was concerned about commercial espionage. This view was repeated in 1970 when Vorster explained to Parliament that South Africa was willing to accept IAEA safeguards on the condition that the safeguards “did not allow commercial espionage or hinder South African civilian nuclear research.”

By late 1989, much had changed both in Southern Africa and abroad, leading to an improvement in South Africa’s security situation. On 22 December 1988, the New York Accords were signed, ensuring the phased withdrawal of Cuban forces from Angola and South African forces from Namibia. On 1 April 1989, implementation of UN Security Council

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56 T. Papenfus, Pik Botha and his times (Pretoria: Litera Publications, 2010), 733.
57 Ibid, 732.
59 Ibid.
Resolution 435 of 1978 started, which led to the independence of Namibia. Finally, the eclipse of power in the Soviet Union, symbolised by the tearing down of the Berlin Wall at the end of 1989, resulted in the withdrawal of Soviet support from Southern Africa, and the associated threat of a nuclear conflict. These events coincided with the appointment of F.W. de Klerk as South African state president in September 1989. De Klerk immediately set into motion fundamental domestic political reforms aimed at bringing full democracy to South Africa.60

In the nuclear field, Pretoria continued to deliberate on the best way forward. Since the withdrawal of the external threat to South Africa, it had become obvious that the nuclear deterrent strategy was superfluous and could in fact become a liability.61 By November 1989, Armscor and the AEC had also changed their views significantly, due to the rapidly changing regional and domestic political and security dynamics. Whereas only a year before, both wanted to continue with nuclear weapons development, the AEC now agreed South Africa should adhere to the NPT as soon as possible in the light of a possible ANC takeover of government.62 Armscor in turn indicated that it was no longer committed to a nuclear weapons program, and wanted to focus instead on a satellite and/or conventional delivery system.63 These recommendations, together with the DFA’s policy advice in 1988 and the parallel changes in international, regional and domestic politics, meant De Klerk was confronted with the introduction of far-reaching changes inside South Africa, as well as the future of South Africa’s nuclear capability. Thus, in late 1989, during an ad hoc Cabinet committee meeting, De Klerk decided to dismantle South Africa’s entire nuclear deterrent capability.64 De Klerk’s decision at last opened up the prospect of accession to the NPT. However, this did not happen until July 1991. There were three important reasons for this delay. First, Pretoria wanted to keep their former nuclear weapons program, as well as its dismantlement secret until accession to the NPT. A steering committee of senior officials from the AEC, Armscor and the SADF had to oversee the dismantling project, including the destruction of records and blueprints and degrading the stockpile the highly enriched uranium to highly enriched gas, which would leave no trace. After the process was completed, accession to the NPT could take place. In the meantime, Pretoria had to continue with its standard diplomatic rhetoric of admitting their potential to enrich uranium to

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61 Stumpf, ‘South Africa’s nuclear weapons program,’ 6.
63 Ibid.
64 Shearar, ‘Denuclearization in Africa’; Malan, My life with the SA Defence Force, 218.
weapons grade, while denying the development of weapons.\textsuperscript{65} In addition, full decontamination of the relevant Armscor facilities, the conversion of Armscor facilities to conventional weapons work and non-weapon commercial activities, and the preparation of a full and complete inventory of nuclear materials and facilities for the IAEA, was ordered.\textsuperscript{66}

The second reason for the delay in adhering to the NPT was Pretoria’s desire to use its voluntary nuclear dismantlement as a bargaining chip for resuming full participation in the activities of the IAEA, closer collaboration with other African countries in the development of nuclear technology, unconditional support for the principle of declaring Africa a nuclear weapons-free zone, and participation in global efforts to prevent the proliferation of weapons of mass destruction.\textsuperscript{67}

The third reason was a realization that Pretoria’s immediate adherence to the NPT would place the IAEA in a unique position of developing procedures to safeguard nuclear material in an ostensibly non-nuclear-weapons country that most probably possessed nuclear weapons as well as a large inventory of highly enriched uranium. Thus, if South Africa signed the NPT while maintaining a nuclear weapons capability, it would seriously damage the credibility of the NPT.\textsuperscript{68}

A further round of talks between the South African government and the depository countries took place in Vienna in December 1989. However, the South African delegation, consisting of pro- and anti-NPT delegates, indicated their concerns about the practicalities of acceding to the NPT. The talks concluded with the South African delegation indicating that domestic concerns about accession to the NPT should first be addressed before the country could accede. However, it took almost a year to address these domestic concerns as the country was by now preoccupied with the release of Nelson Mandela; the unbanning of liberation movements; and the initial negotiations on the country’s future constitutional dispensation.

The 1980s, therefore, signalled a \textit{volte face} on the NPT by the South African government. This coincided with domestic changes such as the beginning of contacts between the South African government and liberation movements; regional changes such as progress on the independence of Namibia; and international changes such as early signs of the collapse of

\textsuperscript{65} DIRCO, ‘Main points arising from Luncheon on 14 November 1989’, 17 November 1989.

\textsuperscript{66} Stumpf, ‘South Africa’s nuclear weapons program,’ 6.

\textsuperscript{67} Shearar, ‘Denuclearization in Africa.’

\textsuperscript{68} George Bush Presidential Library (hereafter GBL), Bush Presidential Records, Staff and Office Files (hereafter BPRSOF), National Security Council (hereafter NSC), Daniel B Poneman Files (hereafter DBPF), South Africa [OA/ID CF01350], Analysis, ‘South Africa: Ready to accede to the NPT,’ 8 February 1990.
the Soviet Union. These events paved the way for a more positive approach by the South African government on the NPT.

More concrete intentions to sign the NPT

By September 1990, a few months after the independence of Namibia and the onset of the collapse of the Soviet Union, Minister Pik Botha circulated a written statement at the 34th Regular Session of the IAEA GC. In the statement, Botha indicated that South Africa was finally “prepared to accede to the Treaty” - but with a caveat: “in the context of an equal commitment by the other states in the Southern African region.” Additionally, Botha indicated that his government intended to re-commence with talks with the IAEA on concluding a safeguards agreement with the Agency. South Africa’s caveat was not given any attention but its diplomatic effort in respect of the NPT paid off as the IAEA Director General indicated that the Agency was ready to commence with talks with South Africa “without delay.”

At last, on 28 June 1991, following assurances from the US, the UK and the Soviet Union that the IAEA would not be in a position to start inspecting South Africa's plants immediately and that sanctions against the country would be lifted, and matching the 18-month schedule of degrading their highly enriched uranium, destroying all records and blueprints, and dismantling all nuclear weapons, Pretoria indicated that they were ready to forgo the possession of nuclear weapons and would sign the NPT “as soon as the required constitutional and administrative arrangements have been made.”

Pik Botha emphasized yet again that South Africa’s long-standing refusal to sign the NPT was on the basis that doing so would jeopardize the country’s security. He also acknowledged again that South Africa had the potential to develop a nuclear bomb and had a plant that produced weapons-grade uranium, but emphasized that Pretoria had never tested a nuclear weapon, either alone or in cooperation with other countries.

South Africa’s accession to the NPT also indicated the country’s acceptance by the international community due to its commitment to nuclear non-proliferation. In 1995, South Africa used its first opportunity to attend an NPT conference, and walked out of the

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conference somewhat of a hero, after playing a significant role in forging a consensus amongst NPT member nations to extend the agreement indefinitely.73

Conclusion

In assessing South Africa’s position on the NPT, several trends emerged on South Africa’s views on the idea of a non-proliferation treaty and, later, the NPT. Firstly, several drivers of South Africa’s nuclear diplomacy are evident. These included a commitment to non-proliferation norms which was initially espoused by the IAEA. Secondly, as white nationalism consolidated, it had the indirect effect of isolating the country. Therefore, the country’s search for international status and recognition became a driver for its development of a nuclear weapons programme. Parallel to this international search was the government’s search for domestic security. These searches, \textit{inter alia}, resulted in the country’s non-compliance with UN sanctions against it, as well as the provisions of the IAEA Statute.

Another trend is that South African decision-makers never questioned the morality of nuclear weapons. Instead, these decision-makers focused on the immorality of inter-racial contact and relations, and the immorality of communism. Moreover, nuclear weapons were regarded as instruments to maintain white supremacy, and achieve status, recognition and security; hence, a sense of prestige, which fits the norms model of assuming that a state will pursue certain technologies, e.g. nuclear, as a symbol of its modernity and identity.74

A fourth trend is that no public domestic debate on South Africa’s nuclear weapons programme occurred. Instead, public debates focused on perceived threats against the government and the white population. Moreover, decisions on the country’s nuclear programme remained secret and the domain of the Executive, the nuclear scientific community, and the military establishment only.

A fifth trend is that, South Africa, due to its international isolation, became a nuclear entrepreneur. This meant that the country circumvented international sanctions and embargoes, gained technological assistance from third countries and developed unique nuclear science and technology.75

A sixth trend in South Africa’s position on the NPT is that the country, once the NPT was negotiated and entered into force, never formed international alliances against the provisions of the NPT. The only exception in this case is South Africa and Israel’s alliance on opposition

\textsuperscript{74} \textit{Ibid}; Du Preez and Maettig, ‘Pariah to Poster Boy.’
to the NPT. This may be ascribed to the country’s international isolation. However, the country maintained relatively good nuclear-related relations with some states, in particular the United States and France, on a bilateral level.\textsuperscript{76}

Finally, South Africa’s suspicion of the purpose and implications of the NPT influenced its early and later positions on the Treaty. Coinciding with the consolidation of white nationalism and its perceived achievements, the South African government was intent on self-sufficiency, autonomy and independence from external actors. Therefore, it perceived the NPT as a threat to its sovereignty. It was also perceived that the country required more guarantees in respect of the protection of its nuclear technology to counter industrial espionage.

South Africa’s signing of the NPT resulted from certain perceived incentives such as the domestic political changes, the end of the international and regional Cold War, and the termination of the country’s international isolation. Moreover, the signing of the NPT paved the way for the IAEA’s verification process in the country, which was successfully concluded by 1993. With this completed, South Africa was recognised as a unique case of nuclear roll-back. This bestowed the country with significant moral and normative power and a unique nuclear identity as a state that terminated its nuclear weapons programme. Important in terms of its signature of the NPT, South Africa as a state party to the NPT could now participate in the conferences on the NPT. Ironically, South Africa’s attendance of its first NPT conference in 1995 coincided with the 25 year review conference of the NPT as prescribed in Article X of the Treaty. The latter had to determine the future life-span of the very Treaty South Africa had been repeatedly called upon to sign since 1968. As mentioned, South Africa emerged somewhat of a hero from the meeting, having come a full circle from its earlier status of nuclear pariah.

\textsuperscript{76} Ibid.