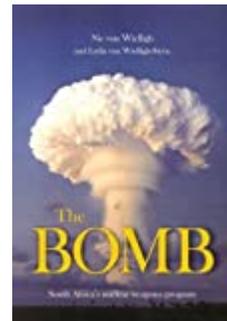




Nic Von Wielligh, Lydia von Wielligh-Steyn. *The Bomb: South Africa's Nuclear Program.* Pretoria: Litera, 2015. 576 p. (paper), ISBN 978-1-920188-48-1.



Reviewed by Robin Möser

Published on H-Soz-u-Kult (January, 2016)

N. von Wielligh u.a.: *The Bomb*

The Bomb is an insider account of the South African nuclear weapons program written by Nic von Wielligh, a nuclear physicist who worked for the South African Atomic Energy Corporation (AEC). He was intimately involved in the nuclear weapons program and held a high-ranking position at the AEC. The book is co-authored by his daughter Lydia von Wielligh-Steyn. The book first appeared in Afrikaans in 2014, with the English version being published a year later in October 2015. It consists of a foreword, a preface, a prologue and eight chapters. The total page number is 550, albeit nearly 100 of them are made up of a glossary, a bibliography as well as an appendix. The latter includes copies and translations of original documents, some of which have never been published before.

The first chapter deals with the development of atom physics and emphasizes the steady global rise of nuclear weapons. A lot of facts are put together and the nuclear arms race between the Soviets and the Americans after the 2nd World War is thoroughly treated.

Chapter 2 is devoted to civilian uses of atoms with a history of "how the monster was tamed". The authors

illuminate how US-President Eisenhower's "Atoms for Peace" Program during the 1950s enabled South African scientists to study nuclear energy-related processes in the United States.

The following chapters 3 to 5 then actually deal with what the subtitle of the book promised, namely the South African nuclear weapons program from its beginning to the termination. Starting with chapter 3 "The bomb in the Bushveld" the authors recount the early beginnings of South African scientists' engagement with uranium enrichment for peaceful nuclear purposes, culminating ultimately in the fabrication of "home-grown" atomic bombs.

The next chapter "The end of an era" deals with the disarmament of the nuclear weapons and the subsequent verification mission carried out by the International Atomic Energy Agency (IAEA) between 1990 and July 1991. This includes a detailed description of the steps the country had to follow before Foreign Minister Roelof F. Botha could sign the Non-Proliferation Treaty in 1991. While the IAEA verification mission in the country is meticulously presented, this cannot however be

said with regards to the decision-making process that led to de Klerk's order to abandon the entire program. The authors highlight the opposition against the disarmament order, which indicates that arriving at such a fundamental decision might not have been a straightforward procedure. The von Wiellighs could have taken into account more than the regional events such as the cease-fire agreement in neighboring Namibia and the withdrawal of Cuban troops from the region. By overly focusing on the decreased threat perception of the Apartheid state they omitted possible other influential factors. This includes the opposition towards the disarmament order on behalf of the employees of the South African Armament Corporation (ARMSCOR) and the AEC, a point of entry that could reveal a lot about the internal decision-making process.

Chapter 5 informs about the South African-Israeli partnership in the military sphere. Here the authors dispute Polakov-Suransky's Sasha Polakov-Suransky, *The Unspoken Alliance: Israel's Secret Relationship with Apartheid South Africa*, Cape Town 2010. claim that cooperation between the two states had taken place with regard to the nuclear weapons program of the country. Von Wielligh reiterates a point which de Klerk made in a 1993-speech namely that the South Africans were not supported by any other country with the development of its 6½ atomic bombs. Neither did they participate in any nuclear test. The authors however acknowledge that Israeli-South African military cooperation did take place, excluding nuclear matters (pp. 293-297).

The last three chapters of the book again treat more general issues such as illicit trade of nuclear weapons components, nuclear catastrophes such as Fukushima, and the Cuban missile crisis in 1962. Throughout the authors keep South Africa as a reference point and do not address matters immediately concerning the South African nuclear weapons program and, thus, do not elaborate further on the core issue of the book.

By way of summarizing, the book fulfills its mission and presents an in-depth account of South Africa's nuclear weapons program. Compared to the book *South Africa's Weapons of Mass Destruction* Helen E. Purkitt / Stephen F. Burgess, *South Africa's Weapons of Mass Destruction*, Bloomington 2005. by Burgess/Purkitt, it has the advantage of having been written by an insider who possesses knowledge that could not be gained through documents or interviews. This is precisely the book's major strength: other accounts tell what happened but Nic von Wielligh goes a step further and illuminates how

certain things happened, adding anecdotes when appropriate. It certainly gives the reader a shudder when he mentions that camouflaged atomic bombs were one day restlessly driven through Pretoria in search for a secure place to store them. Another telling example is the story of how de Klerk attended a social gathering of AEC and ARMSCOR staff right after the dismantlement decision was taken. Nic von Wielligh describes the strange meeting in which considerable tension between the nuclear experts having just lost their jobs and the president occurred (p. 220).

The only other book written by people as intimately involved in the program is *Armament and Disarmament* Hannes Steyn / Richart van der Walt / Jan van Loggerenberg, *Armament and Disarmament: South Africa's Nuclear Weapons Experience*, Pretoria 2003. but counts a mere 160 pages and is somewhat dwarfed by the 550 pages of *The Bomb* with regard to the information given and the detailed way in which the topic is presented. The authors of *The Bomb* can be applauded for the inclusion of documents that Nic von Wielligh himself obtained. This adds to the book's importance in the debate about the South African nuclear weapon history.

On the other hand the authors often resort to national stereotypes in the description of people they worked with or met. At times this reflects Cold War stereotypes such as *in typical Soviet style* (p. 70) or *avodka-befuddled Yeltsin* (p. 277), giving the impression that the von Wiellighs are overtly anti-Russian. Furthermore, the book boxes containing information in the size of some lines up to 3 pages intersect the main text body. At times this infringed on the book's readability.

To me the volume oscillates between an academic account and a book that is easily accessible for a general audience. There are sources offered in the appendix but at times the reader is left wondering by what particular source the arguments are informed.

Despite these minor shortcomings the book fills a gap in the literature on the South African nuclear weapons program. It is an in-depth account that treats the case from its humble beginnings to the dismantlement of the nuclear weapons and the single facts have been woven into an exciting story. As cautioned in the foreword, a lot has been written on the South African nuclear weapons program. It is however challenging to discern speculative analysis from evidence-based accounts. The nonsense approach taken by the authors and their way of presenting the case in a well-structured and informing manner makes it an important contribution. The only

caveat might be the length of the book and the abundance of information which can become tiresome for readers. However, for those only interested in the South African nuclear weapons program, chapter 3 to 6 present a sufficient and interesting read.

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Citation: Robin Möser. Review of Von Wielligh, Nic; von Wielligh-Steyn, Lydia, *The Bomb: South Africa's Nuclear Program*. H-Soz-u-Kult, H-Net Reviews. January, 2016.

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