

South Africa Chemical Chronology

2005-2000 | 1999-1990 | 1989-1896

Last update: April 2005

This annotated chronology is based on the data sources that follow each entry. Public sources often provide conflicting information on classified military programs. In some cases we are unable to resolve these discrepancies, in others we have deliberately refrained from doing so to highlight the potential influence of false or misleading information as it appeared over time. In many cases, we are unable to independently verify claims. Hence in reviewing this chronology, readers should take into account the credibility of the sources employed here.

Inclusion in this chronology does not necessarily indicate that a particular development is of direct or indirect proliferation significance. Some entries provide international or domestic context for technological development and national policymaking. Moreover, some entries may refer to developments with positive consequences for nonproliferation

2005-2000

28 January 2005

The United Kingdom releases its third quarterly report on Strategic Export Controls, covering the period 1 July to 30 September 2004. The report notes the issuing of licences for export to South Africa of the following items: "chemical agent detection equipment (2 licences), components for chemical agent detection equipment, NBC respirators, components for NBC respirators, NBC clothing, NBC decontamination equipment, chemical agent detection equipment, components for NBC respirators, civil NBC equipment and corrosion resistant chemical manufacturing equipment."

— Strategic Export Controls: Quarterly Report - July to September 2004, (January 2005), pp. 125-126, www.fco.gov.uk.

29 November-3 December 2004

At the Conference of the States Parties meeting of the Organisation for the Prohibition of Chemical Weapons (OPCW), South African Ambassador Ms. Priscilla Jana urges States Parties to address the need for "policy guidance on the overall framework for the implementation of Article XI" and increased budgetary allocations for international cooperation and assistance programs.

— Statement by H. E. Ms. Priscilla Jana to the Ninth Session of the Conference of the States Parties of the Organisation for the Prohibition of Chemical Weapons, 29 November 2004, www.opcw.org.

November 2004

In South Africa, African Amines agrees on a plea bargain with the South African government in which the company admits that "it knowingly exported 120 tonnes of a substance called dimethylamine to Iran in March 2003 without a permit issued by the Council for the nonproliferation of Weapons of Mass Destruction." The company is fined R100,000 (c. \$17,000 USD). It appears that the requirement that exporters of dimethylamine obtain an export permit was introduced after African Amines contracted to supply the chemical but before the shipment actually took place. Although African Amines applied for an export permit it did not wait for a permit to be issued before shipping the chemicals to Iran.

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— "How Sasol Firm Sold WMD Chemicals to Iran," *Mail and Guardian Online*, 18 February 2005, www.mg.co.za; "RAS: Oil-From-Coal Company Affiliate Reportedly Exported WMD Chemicals to Iran," FBIS document AFP20050218000095, 18 February 2005, www.fbis.gov; "Sasol affiliate fined for unlicensed Iran exports," *Business Report*, 21 February 2005, www.businessreport.co.za.

10 March 2004

The Constitutional Court of South African rejects the state's request for "leave to appeal against the acquittal of Wouter Basson." Chief Justice Arthur Chaskalson states, however, that Pretoria High Court presiding judge Willie Hartzenberg's "decision not to recuse himself...was a constitutional matter as the impartial adjudication of disputes in both criminal and civil cases is the cornerstone of any fair legal system." Furthermore, the court rules that "there was a constitutional obligation on the state to prosecute offences that threatened the rights of citizens and an international obligation to prosecute crimes against humanity," referring to the six charges against Basson dropped because they related to crimes committed outside of South Africa.

— The CBW Conventions Bulletin, No. 64 (June 2004), p. 35.

5 November 2003

South Africa's Constitutional Court reserves judgment regarding "the state's application for an order granting the possibility of a re-trial of" Wouter Basson, in order to give both the prosecution and defense additional time to submit written arguments.

— The CBW Conventions Bulletin, No. 63 (March 2004), p. 17.

March 2003

African Amines, a subsidiary of the South African Oil from Coal Company (SASOL) exports 120 metric tons of dimethylamine to Iran. Dimethylamine can be used as a precursor for the nerve agent tabun (GA) or missile fuel. Dimethylamine also possesses a wide range of legitmate commercial uses including the production of detergents and pharmaceuticals. The shipment is of particular concern as the receiving company is Sasadja Moavenate Bazargani which has been placed on WMD end-user watch lists by the German and Japanese governments and is suspected of involvement in Iranian missile programs.

— "How Sasol firm sold WMD chemicals to Iran," *Mail and Guardian Online*, 18 February 2005, www.mg.co.za; "RAS: Oil-From-Coal Company Affiliate Reportedly Exported WMD Chemicals to Iran," FBIS document AFP20050218000095, 18 February 2005, www.fbis.gov.

11 April 2002

Basson is acquitted of the rest of the 46 criminal charges by Judge Hartzenberg, who dismisses the evidence of all 153 witnesses and argues that the state has not proved its case beyond a reasonable doubt. Basson's defense attorney Jaap Cilliers estimates that the 30-month trial cost the state 125 million rand, and Basson argues that it would be a waste of even more money to appeal the verdict. Critics of apartheid are astonished and angered by the verdict, and many demand that an appeal be filed so that a less partisan judge can hear the case.

— Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, [final] special report; "The long and costly road to acquittal," *Sunday Times* (14 April 2002); Chris McGreal, "'Dr. Death a free agent once again," *The Age* (14 April 2002); "Revenge of South Africa's 'Dr. Death'", *BBC News Online* (12 April 2002).

25-26 September 2001

In his continuing trial, Wouter Basson says "Project Jota was not, as has generally been assumed, simply a new name allocated to Project Coast. ...[F]rom 1992, Jota was the name of the defensive component of the CBW

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project, while Coast continued to be the offensive arm." Prosecutor Anton Ackermann points out that this is the first time "that a clear distinction has been drawn between projects Coast and Jota."

— "Proceedings in South Africa: The Continuing Trial of Wouter Basson," *The CBW Conventions Bulletin*, No. 54 (December 2001), p. 26.

18 June 2001

Judge Hartzenberg acquits Basson of 15 of the remaining 46 charges brought against him in 1999. He provides no explanation for why he has rendered this judgment, but promises to do so at the end of the trial.

— Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 47 special report.

28 February 2000

A masked assailant shoots James Patrick Riley, co-owner of an Irvine, California company called Biofem, Inc., in the head. Three days later, his business partner Dr. Larry Ford is found dead in the upstairs bedroom of his home, the apparent victim of a gunshot suicide. Investigators soon learn that Ford had apparently arranged to assassinate his partner, secretly poisoned patients and former mistresses, and threatened to poison other business associates. They are also shocked to discover that he had stockpiled an arsenal of small arms, C4 explosive, blasting caps, and over 260 containers of biological substances on his property, some of which contained *V. cholerae, Salmonella typhi*, ricin, and botulinum toxin. On Ford's property the police also find one of the special assassination devices made by South African armorer Phil Morgan at the QB Laboratories, which provides physical proof of Ford's connection to Project Coast. Documents recovered by the Irvine Police Department from Ford's home and office further indicate that he had contacts with certain right-wing militia groups in the US, raising concerns that he may have supplied them with dangerous BW materials.

— Edward Humes, "The Medicine Man," Los Angeles Magazine (July 2001), pp. 96-9, 166-8; Stephen Burgess and Helen Purkitt, The Rollback of South Africa's Biological Warfare Program (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 34-7; 11 July 2002 phone conversation with investigative journalist Michael Reynolds.

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1999-1990

25 October 1999

In Pretoria High Court, Wouter Basson pleads 'not guilty' to all of the charges against him.

— The CBW Conventions Bulletin, No. 46 (December 1999), p. 46.

12 October 1999

Presiding judge Willie Hartzenberg rules that six of the eight conspiracy to murder charges against Wouter Basson must be withdrawn. Judge Hartzenberg also grants Basson's request for his bail conditions to be relaxed for the trial's duration.

- The CBW Conventions Bulletin, No. 46 (December 1999), p. 37.

4 October 1999

The state's criminal case against Basson begins in the Pretoria High Court. He is charged with 64 counts, including 12 for murder, 7 for conspiracy to murder, 3 for attempted murder, 4 for assault with intent to do grievous bodily harm, and others for fraud and drug trafficking. The murder charges include allegations of human experimentation

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and the elimination of enemies of the state with drugs. All of these offenses allegedly took place while he served as Project Officer for Coast. Judge Willi Hartzenberg dismisses several of the charges at the very outset of the trial for different reasons, among which is that several crimes that Basson allegedly committed outside of South Africa are covered by the 1989 Namibian amnesty.

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999); Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, weeks 1, 2.

24 March 1999

The South African National Assembly's Standing Committee on Public Accounts "adopts a report noting that evidence on Project Coast laid before the Truth and Reconciliation Commission appeared to contradict evidence that the committee had received from former [South African National Defence Forces] SANDF chief Georg Meiring and surgeon-general Neil Knoble." A committee assigns a researcher to look into the matter.

- The CBW Conventions Bulletin, No. 44 (June 1999), p. 34.

24 March 1999

Dr. Wouter Basson, former head of apartheid-South Africa's CBW program Project Coast, is indicted in Pretoria Regional Court on 64 charges, including 16 of murder, 11 of conspiracy to murder, 6 relating to the illegal possession and trade in drugs, and 24 of theft and fraud.

— The CBW Conventions Bulletin, No. 44 (June 1999), p. 34.

1 February 1999

The Public Accounts Committee of the South African Parliament announces it will begin "investigating possible discrepancies in the evidence on the apartheid government's CBW programmes which the SA National Defence Force had presented to it and to the Truth and Reconciliation Commission."

- The CBW Conventions Bulletin, No. 43 (March 1999), p. 36.

29 October 1998

The Truth and Reconciliation Commission presents its final report to South African President Nelson Mandela. The five-volume report includes the Commission's analysis and findings regarding apartheid-South Africa's CBW program. The report states: "Despite the fact that the South African CBW programme during the period under review has now been exposed as showing gross aberrations of intent, discipline, actions, command structures, financial dealings and professional relationships, it was highly regarded within the military, which considered it a successful programme....One of the astonishing aspects that emerged in the hearings was that the professionalism, competence and mystique of the programme were stripped away by the evidence of the very people who participated in it. The hearings revealed a nepotistic, self-serving and self-enriching group of people, misled by those who had a technical grasp of what was happening. They conducted work they deemed to be scientific, but which was underpinned by ideas, suggestions and hypotheses that were bizarre and incompetent." Its analysis concludes, "Inevitably, the CBW programme achieved little of value or of common good. Enveloped as it was by secrecy, threats and fear, opportunism, financial mismanagement, incompetence, self-aggrandisement, together with a breakdown in the normal methods of scientific discourse, the results were paltry. Tens, even hundreds, of millions of rands were squandered on ideas that had no scientific validity. At best, the programme succeeded in producing for manufacture analogues of CR and BZ incapacitants, and in making local arrangements for protective clothing for troops against mass chemical and biological attack. At worst, the programme had criminal intent." — "Special Investigation into Project Coast: South Africa's Chemical and Biological Warfare Programme," Final Report of the Truth and Reconciliation Commission (Vol. 2, Chapter 6c), (Truth and Reconciliation Commission, 1998), www.stanford.edu.

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31 July 1998

Wouter Basson testifies before the Truth and Reconciliation Commission. In contradiction to the testimony of many of his subordinates at Project Coast, he claims that the program "had no offensive capabilities."

— The CBW Conventions Bulletin, No. 41 (September 1998), p. 39.

27 July 1998

The South African High Court dismisses Wouter Basson's application requesting the Court to overturn the Truth and Reconciliation Commission's order that he testify in the Commission hearings on Project Coast.

- The CBW Conventions Bulletin, No. 41 (September 1998), p. 38.

7-8 July 1998

The Truth and Reconciliation Commission (TRC) again resumes its public hearings on South African's CBW program, which are then "adjourned indefinitely pending the outcome of Basson's plea to the High Court" to overrule the TRC's demand for his testimony.

— The CBW Conventions Bulletin, No. 41 (September 1998), p. 35.

July 1998

In reaction to the revelations about South Africa's CBW program at the TRC hearings, the British police and Security Service (MI5) reopen investigations into the deaths of six anti-apartheid activists in Britain during the 1980s and 1990s. The goal is to determine whether any of these seemingly natural deaths were actually clandestine murders.

— Michael Evans, "South Africa may have ordered British deaths," *London Times* (14 July 1998), p. 7.

18 June 1998

The Truth and Reconciliation Commission (TRC) reconvenes its public hearings on South African's CBW program, but Dr. Basson does not testify as anticipated, "having applied to the High Court for protection against the TRC demand that he should."

- The CBW Conventions Bulletin, No. 41 (September 1998), p. 30.

15 June 1998

The South African government issues a statement regarding the Truth and Reconciliation Commission hearings on CBW, asserting, "In response to media queries about the apartheid regime's Chemical and Biological Weapons (CBW) Programme, Government wishes to clarify that this programme has been terminated, and that the material for offensive purposes in government storage has been destroyed. This was done in cooperation with countries which possess expertise in matters relating to these programmes; and in full compliance with relevant international treaties."

— "Statement on TRC Hearings on the CBW Programme (Issued by Government Communications— GCIS)," *ANC Daily News Briefing* (16 June 1998), www.anc.org.za.

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— "Statement on TRC Hearings on the CBW Programme (Issued by Government Communications — GCIS)," ANC Daily News Briefing (16 June 1998), www.anc.org.za.

June-July 1998

TRC holds hearings in Cape Town on South Africa's secret CBW program.

— South Africa, Truth and Reconciliation Commission, Report (London: MacMillan, 1999), vol. 2, p. 510.

10 May 1997

Attorney Ernst Penzhorn of Sunnyside provides NIA officers with two more [Basson?] trunks full of documents. These contain classified documents related to the SADF and Project Coast, including the main front companies and associated companies, as well as personal documents and foreign currency (including a single Libyan bank note). Among these documents are 205 reports related to 177 biological research projects.

— Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 8, testimony of NIA officer.

27 February 1997

The Office of the President holds a press conference in Cape Town regarding the situation of Dr. Wouter Basson, who is "on bail pending a court hearing on 4 April" and in the protective custody of the intelligence services. Cabinet Secretary Jekes Gerwel clarifies that Dr. Basson was rehired by the South African Defence Forces as a specialist medical consultant "in order to maintain control over his activities and movement, and to retain his specialist knowledge."

- The CBW Conventions Bulletin, No. 35 (March 1997), p. 42-43.

29 January 1997

Basson is arrested by South African Narcotics Bureau (SANB) officers in a sting operation while trying to transfer 1,000 capsules of MDMA to drug dealing informant Grant Wentzel in exchange for 60,000 rands in Pretoria's Magnolia Dell Park. Subsequent police searches of the homes of Basson and Bosch turn up the six trunks containing key Coast documents that were supposed to have been destroyed years before. [Note: in 1989 Wentzel was accused by the US government of participating in a scheme to provide unspecified "high-tech equipment" to the USSR, along with Organochem (a Coast procurement front company) director Jerry Brandt. See Peter Hounam and Steve McQuillan, *The Mini-Nuke Conspiracy: Mandela's Nuclear Nightmare. The Hidden Story behind the Red Mercury Killings* (London: Faber and Faber, 1995), pp. 160-1. Wentzel later testified that Basson had been involved in international procurement and sales activity, including arms trafficking with Libya, Pakistan, and possibly Iraq. He did not mention WMD in this context. See Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 3, Wentzel testimony.]

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), English translators' introduction, p. iii; Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), pp. 276-7, 279-81.

22 January 1997

Basson, Mijburgh, and Bosch fly to Namibia and visit the Libyan embassy there. Basson meets with his Swiss business partner, Dr. David Chu, and also reportedly with various Libyan and East German intelligence operatives. — Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 18, defense attorney cross-examination of Bosch.

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22 January 1997

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10 June 1996

South African Justice Minister Dullah Omar announces that the "Cabinet has authorized that the secrecy of Project Coast be lifted" and has requested the director of the Office for Serious Economic Offenses "to continue with the investigation here and overseas."

- The CBW Conventions Bulletin, No. 33 (September 1996), p. 20.

15 May 1996

The Public Accounts Committee of the South African Parliament seeks an explanation "why the South African National Defense Force [(SANDF)] had written off Rand 21.8 million when closing down 'Project B', also known as 'Project Coast'" in 1993 following South Africa's signature of the Chemical Weapons Convention. Jan Swanepol, head of Office for Serious Economic Offences, testifies to the committee regarding an alleged "\$1.6 million payment made in 1992 by the apartheid-era government into an account in Croatia for a sanctions-breaking consignment" of methaqualone." [Note: see December 1992 entry.]

— The CBW Conventions Bulletin, No. 32 (June 1996), p. 36.

Mid-1990s

As RRL is being closed down, many company records and stocks of substances are destroyed or otherwise disposed of. Some of RRL's cantharidin [a type of "Spanish Fly" aphrodisiac that Basson claimed was used to produce blisters similar to those caused by mustard] is applied to tissues [?] with slogans on them and handed out to unwary youngsters at End Conscription Campaign meetings. Cantharidin is not only an irritant, but is also highly toxic to the kidneys.

— Dr. Schalk van Rensburg, testimony at TRC hearings, 9 June 1998, www.doj.gov.za.

April 1995

Former Delta G managing director Mijburgh moves six trunks full of material, including important Coast documents, from Basson's house to the home of Basson's friend Samuel Bosch. At the time Basson is allegedly visiting Libya. Bosch is not apprised of their contents or provided with keys to their padlocks.

— Centre for Conflict Resolution, Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002, week 8, defense attorney cross-examination of Knobel, and week 17, testimony of Bosch.

2 March 1995

While accepting the credentials of Libya's first ambassador to his country, South African President Nelson Mandela comments, "We believe that some of the experts who were involved in [the CBW] programme in South African are visiting Libya...without the knowledge or consent of the government of this country.... We have in our discussions especially with representatives of the United States and Britain explained that we have no such programme now and that a defensive chemical and biological weapons program was terminated in January 1993. We have no connection with any country, including Libya, in regard to chemical and biological weapons programmes." — The CBW Conventions Bulletin, No. 28 (June 1995), p. 17.

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27 February 1995

Niel Knobel, the surgeon-general of the South African National Defence Force, denies the charge by unidentified U.S. intelligence sources "that South African still possesses chemical and biological weapons and that Libya is recruiting South African scientists associated with them." He asserts that South Africa "destroyed all lethal, incapacitating and irritating chemical and biological agents in 1993."

— The CBW Conventions Bulletin, No. 28 (June 1995), p. 17.

8 December 1994

Protechnik Laboratories Manager Philip Coleman "tells visiting foreign diplomats and reporters that his company makes small quantities of CW agents such as mustard gas for research into CW protective measures." The managing director of Armscor, the state arms agency— which purchased Protechnik in September 1994— announces that Protechnik will "play an active role in the South African implementation of, and adherence to, the Chemical Weapons Convention, and says South Africa has no stocks of chemical weapons."

- The CBW Conventions Bulletin, No. 27 (March 1995), p. 21.

February 1994

De Klerk is briefed by Knobel, Defence Minister Louw, Dr. Scholtz, and NIS Counter-Espionage chief Mike Kennedy about the "unofficial" aspects of the CBW program, including its offensive weapons and abusive Third Force activities

— Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za.

October 1993

Dr. Jan Lourens expresses his concerns about the murder devices he has been manufacturing at RRL to Knobel. Knobel claims that these matters aren't related to Coast and says that he doesn't want to hear about them, but does report Louren's charges to General Liebenberg, by then SADF chief. Liebenberg tells Knobel not to pay any attention to the allegations, even though he previously/later warned Lourens that he wanted his "toys" back.

— Dr. Jan Lourens, testimony at TRC hearings, 8 June 1998, www.doj.gov.za; Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za.

24 September 1993

Surgeon-General Knobel gives a briefing to the National Intelligence Service (NIS) about Coast, and assures his audience that the Defence Minister authorized the program. Shortly thereafter Knobel becomes aware of allegations about Coast abuses.

— Gen. Niel Knobel, testimony at TRC hearings, 12 June 1998, www.doj.gov.za.

1 August 1993

Delta G Scientific is acquired by the Sentrachem Group, whose constituent firms are National Chemical Products, Kolchem, SASOL, and the Synthetic Rubber Company. [Note: this purchase is presumably a result of the decision to privatize Coast facilities.]

— G. C. Gerrans, "Historical Overview of the South African Chemical Industry, 1896-1998," *Chemistry International* 21:3 (May 1999), p. 76; see also Peter Hounam and Steve McQuillan, *The Mini-Nuke Conspiracy: Mandela's Nuclear Nightmare. The Hidden Story behind the Red Mercury Killings* (London: Faber and Faber, 1995), p. 159.

22 June 1993

New Defence Minister Johan Coetzee approves the manufacture of a water cannon rigged to apply CR teargas, but

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orders the termination of the CR foam project.

— Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za

1 March 1993

Colonel Ben Steyn replaces Basson as Project Officer for Coast.

— Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za.

27 January 1993

Basson supposedly supervises the destruction of various Coast-manufactured chemicals in conformity with the strictures of the new CWC. 18 blue plastic drums of methaqualone, 73 metal drums of MDMA, white metal drums of cocaine hydrochloride, small plastic containers of dimethyl amphetamine, 21 green metal drums of a BZ derivative, 4 paper drums, and 2 cartons are flown out over the Atlantic Ocean, 150 sea miles from the coast and south of the Agulhas Plateau, where they are "deactivated" and dropped into the sea. Small samples from these containers are reportedly brought to SAP headquarters for identification and certification.

— Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za.

14 January 1993

South Africa signs the CWC.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 15.

7 January 1993

Defence Minister E. Louw, Surgeon-General Knobel, Colonel Ben Steyn, and Basson decide to record all technical and scientific information related to the CBW program onto magnetic band/optical band storage discs and then destroy the paper copies. The company selected to perform this task is Data Image Information Systems, owned by Dr. Philip Mijburgh. Mijburgh is the nephew of former Defence Minister Malan and also the Managing Director of Delta G Scientific. One year later Basson tells Knobel that the process has been completed and the documents destroyed. 13 CD-ROMs full of scanned material are placed in a succession of safes to which Knobel, Steyn, and De Klerk have key combinations. [Note: trunks full of Coast documents were later recovered at the home of Basson's friend Samuel Bosch and in a storage unit. See the April 1995, 29 January 1997, and 10 May 1997 entries below.] — Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), p. 253; Gen. Niel Knobel, testimony at TRC hearings, 8 July 1998, www.doj.gov.za.

1993

Basson's wife Anna Versluis asks Bosch to store several "heavy, sealed drums" at his home following Basson's arrest in Switzerland. The drums are returned to Basson prior to his 1997 arrest in South Africa.

— Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 17, testimony of Bosch.

Late 1992-1999?

The Office of Serious Economic Offenses (OSEO) initiates a protracted investigation of Basson's financial activities. The investigation uncovers an extraordinarily intricate web of overseas front companies and accounts established by Basson and his foreign collaborators, including his Florida business partner, attorney David A. Webster. The most important of these entities is the Wisdom Group and its far-flung components. All of these front companies and secret accounts were ostensibly created in order to disguise the SADF's involvement in the procurement of embargoed materials and to funnel SADF payments to various discreet providers via intermediaries, but the OSEO

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concludes that a number of Basson's overseas financial transactions were instead made for his personal benefit. — H[ennie] J. Bruwer [OSEO auditor], *Projek Coast: Forensiese Ondersoek*, 10 November 1999; Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za; Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, weeks 9-13, testimony of Bruwer.

12 December 1992

ANC leader Nelson Mandela is released from prison after 27 years. He advocates reconciliation rather than revenge, thereby facilitating the ongoing transformation of South Africa from an apartheid state to a democratic state. [Note: several doctors working with Basson later claimed that he had intended to contaminate Mandela's medication with thallium prior to the activist's release. If the right dosage was applied, the victim would appear to have an outbreak of meningitis or encephalitis. Basson insists that he and his staff intended to protect Mandela from a possible assassination attempt by younger, more radical ANC leaders, and in that context had to consider poisonings. Compare Dr. Schalk van Rensburg, testimony at TRC hearings, 9 June 1998, www.doj.gov.za; and Dr. Wouter Basson, testimony at TRC hearings, 31 July 1998, www.doj.gov.za.]

— James Barber, South Africa in the Twentieth Century: A Political History — In Search of a Nation State (Oxford: Blackwell, 1999), p. 274.

2 December 1992

President De Klerk officially announces the end of apartheid in an address to Parliament, initiating a seismic political change in the history of South Africa.

— James Barber, South Africa in the Twentieth Century: A Political History — In Search of a Nation State (Oxford: Blackwell, 1999), p. 273.

December 1992

After being apprised of the conclusions of the Goldstone Report and briefed by General Pierre Steyn on illegal "Third Force" and Coast activities, President De Klerk dismisses 23 senior military personnel, including Basson and 19 DMI officers and operatives, from active service in the SADF. Basson leaves the Permanent Force on 31 March 1993, but is immediately rehired to tie up loose ends on Project Coast, including the recovery of SADF funds stolen by duplicitous Croatian government personnel in connection with an alleged methaqualone purchase.

— Gen. Niel Knobel, testimony at TRC hearings, 8 July 1998, www.doj.gov.za; Jacques Pauw, Into the Heart of Parkness: Confessions of Apartheid's Assassins (Johannesburg, Jonathan Ball, 1997), pp. 279-80. For the NIS report

Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), pp. 279-80. For the NIS report upon which General Steyn based his briefing, see RSA, National Intelligence Service, "Staff Paper prepared for the Steyn Commission on Alleged Dangerous Activities of SADF Components," December 1992, as well as the entry above.

December 1992

A "top secret" report prepared by the NIS accuses elements of the SADF of being involved in a host of illegal and "dangerous" activities, such as carrying out covert "false flag" operations, CCB-sponsored assassinations, CBW attacks, and targeted poisonings. Among the components directly implicated in these activities are the Reconnaissance Directorate of the SF [the entity overseeing the elite Reconnaissance regiments], the Terrorism Section of the Directorate of Covert Collection, the GS2 intelligence section of the South African Army, Basson's 7 Medical Battalion Group, elements of the SAP, and members of a so-called Binnekring ("Inner Circle"). Several important individuals are also singled out as key participants in these illegal actions, including Basson, General Liebenberg, General C. P. van der Westhuizen, Colonel At Nel, Colonel Mielie Prinsloo, and Colonel H. A. P. Potgieter. [Note: although no specific details are provided about the nature and composition of this phantom Binnekring, it appears most probable that the term refers to interlinked individuals "in the know" who formed

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parallel chains of command within various covert state structures, including Project Coast itself.] — RSA, National Intelligence Service, "Staff Paper prepared for the Steyn Commission on Alleged Dangerous Activities of SADF Components," December 1992.

December 1992

Reverend Phiri again suffers burning sensations while visiting Kenya as a delegate of the Christian Council of Malawi. He suspects that he has once again been poisoned by contaminated clothing, just as Reverend Chikane had been. There is no independent confirmation that poisoning occurred.

— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, p. 21, www.contrast.org.

November 1992

Reverend Emmanuel Chinkwita Phiri, Acting General Secretary of the Christian Council of Malawi and a member of the Malawian Public Affairs Committee, picks up one of his suits at the dry cleaners. At a meeting with a United Nations technical team, he feels a burning sensation around his neck and shoulders. He goes home, where the burning persists, his heartbeat quickens, and he develops a fever. He is taken to a hospital, where he receives treatment and gradually recovers. He suspects that his clothes were impregnated with poisons, but there is no independent confirmation of this.

— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files,* November 1997, pp. 20-21, www.contrast.org.

20 October 1992

\$360,000 of Coast funds are transferred into an account of the P&S company. The money is then recorded in the P&S cashbook as being for the "sale of technology" to Firm Licenspolychim, 11 Minskaya Street, Moscow. Originally, this money had allegedly been earmarked for the purchase of a peptide synthesizer.

— Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 16, testimony of Bosch.

October 1992

The CMC approves the speeding up of all international procurement activities in anticipation of South Africa's signing of the new Chemical Weapons Convention (CWC).

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 15.

8 April-September 1992

Samuel Bosch, a friend of Basson's and the manager of a bank in which Basson had previously set up both his personal accounts and those of the Wisdom Group, transfers 31.2 million rand in SADF funds into the foreign accounts of private individuals. He is given Treasury Orders for these amounts.

— Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 16, testimony of Bosch.

16 January 1992

The SADF reportedly tests an unspecified CW agent — possibly BZ — by bombing Frente de Libertação de Moçambique (FRELIMO: Front for the Liberation of Mozambique) troops from a pilotless observer aircraft near Ngungwe on the Mozambican border, killing at least 5 and injuring 10 others. It then blames the CW attack on the ANC and sends in a team consisting of Basson, Dr. Lourens, Dr. Brian Davey, and other colleagues from SAMS' 7

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Medical Battalion Group to "investigate." Basson, Brigadier Van Wyck, and Colonel At Nel are the alleged masterminds of the attack. A small unmanned aircraft had supposedly first been tested at Komatipoort airport, and the poison used had been manufactured and stored at Protechnik, one of the many Coast-linked companies. The US and UK both subsequently issue a diplomatic protest (demarche) to South Africa.

— United Nations, Report of the Investigations into the Allegations of the Use of Chemical Weapons in Mozambique (New York: United Nations, 1993); John Yeld, "SADF bombed Frelimo in chemical weapons test and blamed ANC," The Cape Argus (6/17/98); Paul Fauvet, "Mozambican claims on 1992 chemical attack now appear correct," The Star (6/17/98); see also Dr. Jan Lourens, testimony at TRC hearings, 8 June 1998, www.doj.gov.za; Klaas de Jonge, "The Chemical Warfare Case," The (Secret) Truth Commission Files, November 1997, pp. 6-12, www.contrast.org; and U.S., Department of State, "Recent Chemical Weapons (CW) Use Allegations — Africa," 9 March 1992 memo (declassified).

Late 1991-Early 1992

Basson asks Theron if he and Phaal will help him disseminate poisoned beer in the Eastern Cape. Theron agrees and goes to Basson's office to get a dozen Black Label beers. Theron and M. M. Engelbrecht bring the poisoned beers back to Theron's office at Centurion Security. In January Basson asks Phaal to give those beers out by the taxi stands in the Eastern Cape and the Transkei. He agrees. Theron transports the beers, but a scheduled meeting on the road between Jeffreys Bay and Cradock doesn't take place because Phaal wishes to avoid Theron. Theron then tosses the contaminated beers out along the roadside.

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), p. 200, 248; Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 21, Phaal testimony.

October 1991

Thor Chemical Company representative Alan Kidger reportedly arranges for the delivery of 2 metric tons of yellow mercuric oxide to the home of Barry Pithy, one of the directors of Delta G. This oxide can supposedly be used as a "building block" for red mercury, allegedly a key component in a new type of battlefield mini-nuke. The shipping and payment are handled secretly, and the delivery is paid for in cash. Less than a month later, Kidger is murdered and dismembered. It later emerges that Delta G had regular business dealings with Kidger. [Note: according to most experts, a substance called "red mercury" with the capabilities ascribed to it by Hounam and McQuillan does not really exist. Indeed, the extravagant claims about "red mercury" may have been linked to a series of sting operations set up by various intelligence services to keep tabs on persons interested in trafficking in sensitive, dangerous materials.]

— Peter Hounam and Steve McQuillan, *The Mini-Nuke Conspiracy: Mandela's Nuclear Nightmare. The Hidden Story behind the Red Mercury Killings* (London: Faber and Faber, 1995), pp. 157-8; compare Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 116-17, note 193. For red mercury as a scam, see United States, Department of Energy, National Nuclear Security Administration, Office of International Materials Protection and Emergency Cooperation, *Special Report: Scams in the World of Nuclear Smuggling* (Washington, DC: Department of Energy, 2000 [May 1997]), pp. 3-7. For its alleged use in intelligence stings, see "Red Mercury is Back in Business," *Intelligence Online* 424 (29 February-13 March 2002), p. 3.

1991

The Chief of Staff (COS) Finance and COS Intelligence begin looking into some of Basson's financial activities, in particular those related to Merton House and Aeromed Services. The CMC is aware of these internal investigations.

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In the end, the investigators accept Basson's explanations of the irregularities.

— Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za.

October 1990

The Defence Council decides that the research on, and weaponization of, CR [a riot control agent], BZ [a psychoincapacitant], MDMA ["Ecstasy"], and methaqualone ["Quaalude"] derivative should proceed.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 15.

26 March 1990

After being briefed on Project Coast by Surgeon-General Knobel and others, President F. W. de Klerk orders that no more lethal chemical agents should be produced by Project Coast, but does not prohibit the continued production of irritating and incapacitating agents.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 15; Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za.

February 1990

The South African government lifts the bans on the ANC, the South African Communist Party (SACP), and several other organizations opposed to apartheid.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 19.

1990

Members of the World Apartheid Movement (later the World Preservationist Movement), a transnational South Africa-based right-wing movement headed by Koos Vermeulen with links to foreign terrorist and far right groups, are suspected of planning to use CW and BW to kill large numbers of blacks and assassinate cabinet ministers.

— Vrye Weekblad (30 November 1990) and Rapport (18 November 1990), both cited by Johann van Rooyen, Hard Right: The New White Power in South Africa (London and New York: I.B. Tauris, 1994), pp. 96-7, 199.

1990

A company called Lifestyle Management is established at Lyttleton. It allegedly functions as an SADF front company, specializes in biogenetics (including genetic engineering), and does secret research for ARMSCOR/Denel (a large South African defense firm). Among the company's directors are Dr. Philip Mijburgh, clinical psychologist Johannes Jacobus Koortzen, and Dr. Brian Davey, all former SF members.

— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files,* November 1997, pp. 14-15, www.contrast.org.

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1989-1896

August-September 1989

CCB member Abram van Zyl plans to murder United Democratic Front (UDF) regional secretary Abdullah Mohamed Omar (Project "Goldie"). After an initial plan to shoot him with a Makarov pistol is aborted, Van Zyl acquires two white heart medicine tablets of the sort used by Omar, who suffers from heart disease. RRL is unable to

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manufacture the pills, but Immelman issues a small quantity of Digoxin [a digitalis glycoside drug] to Dr. R. J. Botha of the CCB. Digoxin can be fatal to those with heart disease if administered in the proper dosage. Van Zyl provides this powder to E. J. Smit, who is ordered to sprinkle it on Omar's food. After a week goes by, Van Zyl orders Cape Town gangster Edward "Peaches" Gordon to destroy the powder and the pistol. [Note: according to Pauw's account, Gordon himself was to administer the poison, but he threw it out of a car window in transit because he admired Omar.]

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 198, 245-7; Jacques Pauw, Into the Heart of Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), p. 225; Centre for Conflict Resolution, Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002, week 22, testimony of Van Zyl.

July 1989

Frederik Willem de Klerk succeeds P. W. Botha as President of South Africa after a "revolt" against Botha by members of his own cabinet. Although he is a conservative who initially hopes to reform but preserve apartheid, De Klerk nonetheless begins initiating serious negotiations with the political opposition.

— Leonard Thompson, A History of South Africa (New Haven: Yale University, 2000), p. 246.

May-June 1989

After a source in the Security Branch is shot dead at a restaurant in Swaziland, General A. J. Nel, head of the DMI's Directorate of Covert Intelligence, orders his subordinate Lieutenant Colonel J. A. Nieuwoudt to kill ANC Swaziland operative Knox (a.k.a. "Enoch") Dhlamini with poison. Nieuwoudt obtains six cans of Dhlamini's preferred beer, and hands them over to an SF operative for treating. Dr. J. H. Davies of RRL bores tiny holes in the cans and inserts botulinum toxin in them. Immelman provides four of these cans to Basson, along with five other cans contaminated with thallium. Nieuwoudt receives six toxic cans and gives them to a Swaziland operative close to Dhlamini. Dhlamini drinks the beer, gets sick, visits a doctor, is admitted to a hospital, and dies. Nieuwoudt then delivers secret information about the workings of the poison to D. Booysen, and the remaining cans are put in a filling cabinet and later destroyed as per Nel's orders.

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 196, 241-3.

April-May 1989

SAP operatives Colonel Chris Smit, Gert Otto, and Manie van Staden try to poison Reverend Frank Chikane, an ANC activist, with paraoxon provided by RRL's Immelman. In April, while driving north to Namibia from South Africa, Chikane becomes sweaty and fatigued and has to vomit. He is taken to a nearby hospital and treated for six days, but is eventually diagnosed as suffering only from fatigue. In May he travels to the U.S. to meet with congressmen and President George Bush, but is repeatedly stricken in Madison, Wisconsin with symptoms such as nausea, salivating, vomiting, shaking, twitching, blurry vision, and hyperventilation. After three visits to the hospital, an American doctor discovers that his symptoms are characteristic of organophosphate poisoning, and the tested samples turn out positive. CCB leader Verster is furious that the operation failed.

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 195, 239-41; Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), pp. 230-2; Dr. Schalk van Rensburg, testimony at TRC hearings, 9 June 1998, www.doj.gov.za; Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 33, testimony of Chikane, Dr. Daniel Smith, Dr. Thomas Lynch, Charles Zeelie, Nanny Beyers, and Boela Burger.

13 March 1989

CCB plans to murder lawyer and senior ANC member Kwenza Mlaba with poisoned razor blades. A CCB operative is

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to pose as a client and leave behind a bag with a new razor and poisoned blades when he exits the lawyer's office. The hope is that Mlaba will then use the razors to shave and poison himself in the process. The plan is later abandoned. [Note: the victim's last name is spelled Mhlaba in the Harms Commission Report, which is probably correct.]

— Jacques Pauw, Into the Heart of Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), pp. 228-9; South Africa, Commission of Inquiry into Certain Alleged Murders, Report [of the Honourable Mr. Justice L.T.C. Harms] (Pretoria: Government Printer, 1990), pp. 45-6.

March-October 1989

Various chemical agents or items contaminated with such agents are provided by RRL's R&D Director André Immelman to SAP Security Branch officers, members of the CCB, Johnny Koortzen of Systems Research and Development, or Basson himself, according to the notorious RRL "sales list." Among these items are sodium azide and paraquat in whiskey, Aldicarb in orange juice, thallium in beer, Brodifacum and cantharidin in peppermint chocolates, digoxin, methanol, phencyclidine, and Vitamin D3.

— The "sales list" is reproduced in full by Marléne Burger and Chandré Gould, *Secrets and Lies: Wouter Basson and South Africa's Chemical and Biological Warfare Programme* (Cape Town: Zebra, 2002), pp. 34-5.

1989

Infladel is dissolved and divided into two separate companies. Sefmed Information Services will henceforth be responsible for the administration of Project Coast, and D. John Truter Financial Consultants will handle the project's financial management.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 14.

April 1988

5.5 million rand are apparently transferred by Project Coast to the Lausanne account of ABC Import/Export. The transfer is supposedly made so that Heyndrickx can purchase 25 Chemical Agent Monitors (CAMs) and 150 portable field detectors from Contemporary Systems Design, a British company owned by Roger Buffham, a Basson collaborator and former British Army, SAS, and Secret Intelligence Service (MI6) operative.

— Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 9, testimony of forensic auditor Hennie Bruwer.

March-April 1988

Evidence of Cuban use of a lethal mixture of mustard agent and nerve agents against South Africa's UNITA allies is allegedly found in soil, leaf, and water samples taken from a battle zone in Angola. The finding is announced by University of Ghent toxicologist Aubin Heyndrickx. [Note: in 1995 Heyndrickx was convicted both of falsifying laboratory results and of swindling the Belgian National Health Service, and was therefore expelled from his university post. Since the Belgian professor also had documented links to Basson, it may be that he was disseminating South African disinformation in order to provide a pretext for the SADF's future usage of CW or to blame the Cubans for CW attacks that the SADF had itself already carried out. See Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, p. 5, www.contrast.org/truth/html/chemical_biological_weapons.html.]

— Jonathan Braude, "CW to be 'standard military practice'," Jane's Defence Weekly 10:8 (27 August 1988).

1987-1988

At Basson's request, Dr. Jan Lourens allegedly goes to London to hand over an umbrella with a needle-type

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mechanism and two ampoules of silatrane [an acutely toxic rodenticide] to CCB, Region 5 (Europe) operative Trevor [Floyd]. The silatrane had been manufactured at Delta G by Dr. Gert Lourens, and RRL had done further research into its solubility and toxicity; the final product does not leave behind characteristic forensic signs. After J. Lourens shows Floyd how to use the device, Floyd provides it to a two-man Portuguese-speaking CCB operational wing. The plan is to inject ANC leaders Pallo Jordan or Ronnie Kasrils with poison while they travel on public transportation to the ANC's offices in London. It proves impossible to carry out the plan, so Floyd throws the device into the Thames. [Note: Mangold and Goldberg date Lourens' trip to England much later, in 1992. For Kasrils' own account of his anti-apartheid activities, see *Armed and Dangerous: From Undercover Struggle to Freedom* (Johannesburg: Jonathan Ball, 1998).]

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 193, 235-6; Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), pp. 262-3.

11 December 1987

Theron receives an order passed down from General A. J. M. Joubert through H. A. P. Potgieter that a Mozambican operative of the 5th Reconnaissance Regiment, Mack (a.k.a. Fernando) Anderson, poses a security risk and must be eliminated. He goes to Phalaborwa, where Anderson is brought, drugged and handcuffed, by D. Drew to the back of a rifle range. Theron injects Anderson with a combination of Scoline, Tubarine, and Ketamine, substances which Basson had earlier provided him with. Anderson dies, and his body is dumped in a field in Mozambique.

— Hooggeregshof, Die Staat tegen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 194, 239.

September 1987

South African operatives apparently try to assassinate Conny Braam, a Dutch anti-apartheid activist and covert ANC operative. First, someone places a bottle marked "All Vitamin Pills" in her locked hotel room in Lusaka, but it contains an oily liquid so she throws it in the trash. A few days later, during a Children's Conference in Harare, clothes that had perhaps been impregnated with parathion [a toxic organophosphate insecticide] are conveniently "left" in her hotel closet. After putting on one of two beautiful jackets she finds there, she wakes up four hours later screaming and in incredible pain. A strange man claiming to be a doctor arrives at once and offers her "ulcer" pills, which she doesn't take. She appears to recover. Three months later, in Holland, she wakes up to find a huge swelling on the bridge between her anus and vagina. She is operated on to remove the swelling, but the wound does not heal until six months later. Soon after, she gets cancer, though this may not be linked to her poisoning. [Note: Mangold renders Braam's first name as Connie, not Conny, but the latter is the way it is listed in other sources and in library catalogs. For Braam's own account of her covert anti-apartheid activities, see *Operatie Vula: Zuidafrikanen en Nederlanders in de strijd tegen apartheid* (Amsterdam: Meulenhoff, 1992).]

— Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), pp. 227-30: South Africa, Truth and Reconciliation Commission. *Report* (London: MacMillan, 1999).

— Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), pp. 227-30; South Africa, Truth and Reconciliation Commission, *Report* (London: MacMillan, 1999), vol. 2, pp. 116-17; Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, pp. 21-27, www.contrast.org.

5 April 1987

Gibson Ncube, an ANC activist in Mozambique, dies a horrible, painful death by paralysis after drinking a can of South African beer spiked with poison. The beer had been delivered to a senior ANC official named Sipho by Leslie Lesia, a would-be music school director in Botshabelo township near Bloemfontein. Lesia had been recruited without his knowledge and then compromised by Ernie Becker, a former SADF Reconnaissance regiment member who later became the CCB coordinator for Region 2. He was then provided with explosive devices, a ring with a poison compartment, a pistol, bottles of both a clear poison and an untraceable yellowish poison, syringes, and a

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case of brandy, a case of vodka, and three cases of Castle beer spiked with poison. The poison had been inserted under the tabs of the beers with a syringe [at the SAP forensic laboratory in Silverton?], and it was General Neethling who allegedly provided all this "stuff" to the CCB. The Zimbabwean CIO later arrests, tortures, and imprisons the hapless Lesia.

— Jacques Pauw, Into the Heart of Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), pp. 239-51; Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, pp. 19-20, www.contrast.org.

April 1987

CCB representative Botes learns from a chef at the Polana Hotel in Maputo that members of the ANC's "top structure" will be holding a meeting there with other African leaders. He proposes the poisoning of these people, but a plan is only approved for the poisoning of one person. Botes receives three clear glass ampoules of poison, which is enough to kill 20 or so people. It proves impossible to arrange for the poisoning of only one attendee, so the operation is cancelled. Botes later quits the CCB and leaves the unused poison with other CCB members.

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 194, 238-9.

April 1987

Major H. van der Westhuizen of the DMI, who works on ANC projects with the SF, identifies an ANC residence in Mozambique, and passes the information on to CCB regional representative Botes. Botes proposes the poisoning of the ANC members in this house, a plan that is approved. He receives an unidentified poison from Dr. Botha in a brown eyedrop/eardrop bottle, then delivers containers of beer, brandy, and soft drinks contaminated with the poison to CCB operative Gary Green for placement in the house. The media later reports that certain attendees die.

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 194, 238.

April 1987

Petrus Jacobus Botes, CCB representative for Region 2 (Mozambique and Swaziland), learns that ANC leader Gibson Mondlane will be staying in Maputo, Mozambique, and conducts further reconnaissance. He proposes the assassination of Mondlane by means of poison (a plan codenamed "Alfred") in a letter to [CCB deputy chief] Joe Verster and General Joubert. Basson asks RRL scientists to supply him with poison, and then provides it to the CCB. The medical coordinator of the CCB, Dr. R. J. Botha, provides ampoules of this poison to Botes, who in turn gives them to his agent Baloyi. Baloyi administers the poison to Mondlane, who falls ill and dies in a Maputo hospital. — Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 194, 236-7.

1987

Basson and Dr. J[an] Lourens agree that a front company should be created with facilities capable of manufacturing special "delivery-devices/weapons" that can be used by SF and especially CCB operatives to secretly administer poison to targets. With funding provided by Basson, such a lab is made available to the front company Systems Research and Development (SRD) and its QB Laboratories component. Morgan identifies the type of equipment he needs to make the weapons. Among the injection devices he manufactures under Lourens' supervision are walking-sticks and umbrellas with a micro-ball missile for chemicals, screwdrivers with a hidden poison injector, rings with a hidden poison compartment, briefcase-bomb mechanisms, and walking-sticks and umbrellas with a needle-type mechanism. Sometimes the weapons are tested at RRL. In exchange for a bonus, Morgan and/or Lourens transfer them directly to Basson.

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 193, 234-5; Dr. Jan Lourens, testimony at TRC hearings, 8 June 1998, www.doj.gov.za.

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1987

SF commander General Liebenberg orders Phil Morgan, an employee of EMLC, to take a leave of absence to produce a "clandestine, umbrella-type weapon/delivery device" that could shoot "micro-size balls" treated with poison under the skin of targeted individuals. Basson provides the specifications of the weapon to Morgan and periodically assesses his progress. [Note: in 1978 Bulgarian dissident Georgi Markov was assassinated in London by the Bulgarian secret service with a similar device.]

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), p. 234; see also Dr. Jan Lourens, testimony at TRC hearings, 8 June 1998, www.doj.gov.za.

12 June 1986

The South African government passes legislation authorizing the imposition of an annually renewable "state of emergency." This legislation provides the security forces with extraordinary powers of investigation, arrest, interrogation, detention, and censorship.

— Leonard Thompson, A History of South Africa (New Haven: Yale University, 2000), p. 235.

August 1986

Theron allegedly orders Phaal to get rid of a black member of the 5th Reconnaissance Regiment, and for this purpose provides him with chemical substances he had previously obtained from Basson. Phaal takes custody of the man in Phalaborwa, gives him a soft drink with a sedative, drives him to the Barberton Airport, and injects him with the chemicals. After moving his body to a secluded airfield in Mtubatuba, Phaal, Theron, and M. van der Linde drop it into the ocean from an airplane.

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 192, 233.

April 1986

SF commanders decide to create a "civilian" special operations unit to carry out covert external (and later internal) operations. The unit is activated in 1988, organized into eight geographical regions and two organizational sections, and referred to by senior staff as the Civil Co-operation Bureau (CCB). It is made up of an "inner core" or "aware strata" of 100 recently "resigned" personnel from the SF, SADF, and SAP, including a second Wouter Basson (alias "Christo Britz") not to be confused with Dr. Basson, as well as 150 "unaware" persons plus ad hoc criminal elements recruited by the core members. The CCB is able to tap the resources of EMLC for specialized weapons, SAMS [Project Coast] for CBW agents, and intelligence gathered by DMI's Directorate of Covert Collection (DCC).

— South Africa, Truth and Reconciliation Commission, Report (London: MacMillan, 1999), vol. 2, pp. 134-44; Jacques Pauw, Into the Heart of Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), pp. 223-5; Eugene de Kock (with Jeremy Gordin), A Long Night's Damage: Working for the Apartheid State (Saxonwold, RSA: Contra Press, 1998), p. 93.

March-10 April 1986

Basson, Theron, and Phaal allegedly conspire to murder Victor M. de Fonseca, a SF member who develops brain cancer and begins to babble about clandestine SF special operations. A week later Phaal gives De Fonseca a lift from SF headquarters to Pretoria, and injects a toxic substance into some lemonade when the latter exits the car to buy a license. Upon his return, De Fonseca drinks the lemonade Phaal offers him. He gets sick a few days later, and dies in 1 Military Hospital on 10 April.

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 192, 232-3.

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1986

A recovered bomb fragment used in an attack on União Nacional para a Independência Total de Angola (UNITA) forces allied to South Africa is tested in South African laboratories and allegedly found to have traces of DM [adamsite], a chemical "vomiting agent" that causes eye and throat irritation, disorientation, nausea, vomiting, and depression.

— Gen. Niel Knobel, testimony at TRC hearings, 18 June 1998, www.doj.gov.za.

Mid-Late 1980s

At Basson's request, Dr. André Immelman of RRL provides [various CCB and Security Branch personnel] with thallium, paraoxon [a poisonous organophosphate insecticide], and other toxic substances on several occasions. [Note: a list of operatives/targets and the notorious 1989 *verkope lys* ("sales list") are both incorporated into the text cited below in order to illustrate these accusations. Among the many deadly agents on this "sales list", aside from those mentioned above, are chemicals such as Aldicarb, [sodium] azide, Brodifacum, cantharidin, cyanide, paraquat, phosphide, and biological pathogens such as anthrax, brucella, and salmonella bacteria, as well as botulinum and mamba toxins.]

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 200-2, 249-51; Centre for Conflict Resolution, Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002, week 23, Immelman testimony.

Mid-1980s

Dr. Larry Ford, an American infectious disease specialist and CBW expert who had worked for the US government after graduating from high school, makes several trips to South Africa. In some cases he accompanies his American surgeon friend, Dr. Jerry Nilsson, an avowed white supremacist who had previously fought with the SAS during the Rhodesian civil war. Other trips are undertaken at the invitation of South African Army Surgeon-General Niel Knobel, who had befriended Ford due to their mutual interests in fertility drugs, AIDS prevention, and CBW warfare. Ford later boasted on several occasions that he helped wiped out an entire village in Angola [presumably with BW or CW agents]. He also claims that he parachuted into southern Africa to take blood samples from dead guerrilla fighters in order to help the US government determine which BW agents the Soviets had vaccinated them against. [Note: it remains to be determined whether these last two claims are true.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 35-6; Edward Humes, "The Medicine Man," *Los Angeles Magazine* (July 2001), p. 167.

Mid-1980s

A new and extremely secretive committee, the Teen-Rewolusionêre Inligting Taakspan (TREWITS: Counterrevolutionary Intelligence Task Force), is created in part to "identify human targets for removal." Representatives from the SAP's Security Branch, the DMI, the SF, and the NIS meet once a month to discuss possible targets. Reports from these meetings are then sent to the [cabinet-level] State Security Council (SSC), which provides the highest level approval for certain suggested assassinations. TREWITS is known to have authorized 82 extrajudicial killings and 7 attempted killings. [Note: The precise date of TREWITS' establishment is unclear. O'Brien says that it was founded in 1986, whereas Gottschalk claims that it wasn't established until 1987.] — Jacques Pauw, Into the Heart of Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), p. 195; Marléne Burger and Chandré Gould, Secrets and Lies: Wouter Basson and South Africa's Chemical and Biological Warfare Programme (Cape Town: Zebra, 2002), pp. 74-5; Keith Gottschalk, "The Rise and Fall of Apartheid's Death Squads," in Death Squads in Global Perspective: Murder with Deniability, ed. by Bruce B. Campbell and Arthur D. Brenner (New York: St. Martin's, 2000), pp. 241-2; Kevin A. O'Brien, "Counter-Intelligence

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for Counter-Revolutionary Warfare: The South African Police Security Branch, 1979-1990," *Terrorism and Political Violence* 16:3 (Autumn 2001), p. 36.

1985

General Liebenberg, commander of the SF, decides that Peter Tanyengenge Kalangula, a high-ranking official in the Namibian Ovamboland administration, should be killed. Trevor Floyd, the operative selected to carry out the task, receives a toxic substance, black rubber gloves, surgical gloves, and an antidote from Basson in Sunnyside, Pretoria. The plan is to smear the substance on the door handle of Kalangula's car, which would lead to his death but not leave typical forensic signs. Floyd travels to Oshakati with the materials, but is unable to carry out the plan. — Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 190, 229-30.

September 1984

- P. W. Botha is unanimously elected as President of South Africa.
- James Barber, South Africa in the Twentieth Century: A Political History In Search of a Nation State (Oxford: Blackwell. 1999), p. 243.

June 1984

Infladel, an administrative and financial management front company for Project Coast, is established. Its task is to channel funds from secret [Defence Ministry] accounts to the chemical and biological front companies.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," The Nonproliferation Review (Fall/Winter 2000), p. 14.

1984

In the Transvaal, SF operatives allegedly murder four black people. One, a member of the Barnacle unit who is considered a security risk, is given a contaminated beer, put to sleep, and injected by Phaal with Tubarine and Scoline provided by Basson to Theron. Theron injects the other three with the same two drugs in Zeerust. All four are then flown out to sea and dropped overboard.

- Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 185, 220-1.

2-4 November 1983

Theron and Dr. J. S. ("Kobus") Bothma allegedly test a toxic jelly-like salve given to them by Basson on three black people in an area near the 5th [Reconnaissance] Regiment's military base in Dukuduku. Beforehand, Bothma gives the prisoners Midazolam [a benzodiazepine sedative, one of whose trade names is Dormicum] mixed in with cold sodas. The victims are then tied to a tree and smeared with the jellied substance. When it fails to kill them, Bothma provides Ketamine to Theron to give to the prisoners, then injects all three with Tubarine and Scoline.

— Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskulding [Indictment]* (1999), pp. 189, 227-8; Centre for Conflict Resolution, *Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002*, week 25, testimony of Kobus Bothma.

August 1983-January 1984

At a meeting to discuss the development of better crowd control methods, General Neethling, head of the SAP Forensic Sciences Laboratory, is asked to provide Basson with quantities of confiscated illicit drugs stored at SAP HQ. Also present are Surgeon-General Nieuwoudt, Minister of Public Order Louis La Grange, and SAP Commissioner Jan Coetzee. Neethling subsequently provides Basson with 100,000-200,000 250mg tablets of methaqualone, 25-50kg in all; 5,000 30microgram LSD tablets; and 3kg of active ingredients extracted from five

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50kg bags of marijuana by Dr. Sotas, a conscript with scientific training.

— Dr. Lothar Neethling, testimony at TRC hearings, 11 June 1998, www.doj.gov.za.

18 April-8 May 1983

Basson and three other physicians comprising the "interrogation wing" of the SF allegedly make use of chemical substances to question five Resistência Nacional Moçambicana (RENAMO: Mozambican National Resistance) suspects after the assassination of RENAMO leader Orlando Christina. One of the five receives an overdose and becomes psychotic, forcing Basson to treat him in the intensive care ward at 1 Military Hospital. Later, Basson, Theron, and P. Heyns transport him to Swartkop Air Force Base. He is then flown to Bloemfontein, taken to Caprivi, and executed and thrown into the Atlantic Ocean. [Note: other sources suggest that the DMI orchestrated the Christina murder. Basson, Mijburgh, and Dr. Wynand Swanepoel, along with members of the SAP's East Rand Murder and Robbery Unit, may have murdered Christina themselves because he was becoming too independent-minded. The government then attempted to cover up the truth. See Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, pp. 18-19, www.contrast.org/ truth/ html/ chemical___ biological_ weapons.html; compare Alex Vines, *Renamo: From Terrorism to Democracy in Mozambique?* (London: James Curry, 1996), pp. 21 and 166, note 42.]

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 188, 225.

1983

Basson allegedly provides D. J. Phaal with a small bottle filled with a toxic substance at Waterkloof Air Base, and shows him how to administer it. Phaal then flies to Southwest Africa, adds the substance to a soft drink, and gives it to a SWAPO prisoner in a cell in Ondangwa. The following day, the man becomes extremely sick, and is flown to 1 Military Hospital in Pretoria. Basson later tells Phaal that the man died, perhaps as a result of the administration of toxic substances by Basson himself.

- Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 190, 228-9.

1983

Roodeplaat Research Laboratories (RRL), a biological research, development and production facility and Project Coast front company, is established on a farm north of Pretoria near the Roodeplaat dam. In addition to testing BW weapons, it also tests the biological effects of CW weapons [produced at Delta G and other facilities].

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 22.

April 1982

Delta G Scientific, a chemical research, development and production facility and Project Coast front company, is established. Its purpose is to develop and produce irritating, incapacitating, and lethal CW weapons for further testing.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 14; Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 22.

1982

ANC member Mandla Msibi dies in Swaziland, reportedly after being poisoned.

— Chandré Gould and Peter Folb, Project Coast: Apartheid's Chemical and Biological Warfare Programme (Geneva:

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United Nations Institute for Disarmament Research, 2002), p. 159, citing the ANC's submission to the Truth and Reconciliation Commission.

End of 1981

Defence Minister Malan officially approves the establishment of a CBW program, codenamed Project Coast, and makes funds available for that purpose. It is originally envisaged that the state-owned arms manufacturer ARMSCOR [Armaments Development and Production Corporation] will assist in the development of the program, but ARMSCOR officials advise Army Surgeon-General Nico J. Nieuwoudt that this task is "too sensitive" for the company. It is then decided that the SADF will be solely responsible for the project, after which Malan and a "kitchen cabinet" consisting of SADF chief Viljoen, SF head General A. J. "Kat" Liebenberg, SAP commissioner Van der Merwe, and the head of the National Intelligence Service (NIS) approve the appointment of Basson as Project Officer. They also authorize the creation of a supervisory body, the Coordinating Management Committee (CMC), which consists of the SADF chief, the Surgeon-General, the Chief of Staff for Finance, the Chief of Staff for Intelligence, ARMSCOR officials, and at times representatives of the Auditor-General. Basson acts as CMC secretary, and in that capacity is "responsible for all the documentation" dealt with by the CMC. [Note: according to Knobel, this authorization occurred in April 1982, not at the end of 1981. See TRC document 8, Knobel's 11 January 1993 response to an 8 December 1992 OSEO questionnaire, pp. 2-3.]

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), pp. 12, 15; Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 20.

20 October 1981

Student ANC activist Sipiwo Mtimkulu is arrested by the Security Police on 31 May 1981, tortured in prison, and released from detention at Port Elizabeth after five months. One day after his release he is found crawling on the floor with swollen, cold feet and severe stomach cramps, apparently because he was administered poison (that may have been brought to the prison by Brigadier [Johannes?] van der Hoven) the day he was released. After being admitted to a hospital, he is diagnosed with thallium poisoning. His hair falls out and he is confined to a wheelchair. Several months later he files two civil suits against the police, one for the torture and one for the poisoning, but on 14 April 1982 the Security Police reportedly kidnap and murder him and dispose of his remains. — Jacques Pauw, Into the Heart of Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), pp. 229-30; South Africa, Commission of Inquiry into Certain Alleged Murders, Report [of the Honourable Mr. Justice L.T.C. Harms] (Pretoria: Government Printer, 1990), pp. 111, 120-4; compare also Klaas de Jonge, "The Chemical Warfare Case," The (Secret) Truth Commission Files, November 1997, p. 18, www.contrast.org.

11 October 1981

Brigadier Willem Schoon orders Vlakplaas-based Security Police operative Dirk Coetzee to get rid of recently released ANC guerrilla Vuyani Mavuso and incompetent South African *askari* Nkosinathi Peter Dhlamini. Coetzee kidnaps them and takes them to a Security Police post on a farm at Kopfontein near the Botswana border. He obtains poison from General Neethling, head of the SAP Forensic Sciences Laboratory, and administers it in cans of cold beverages to the victims; Mavuso acts incoherently overnight but doesn't die. Two more attempts to administer poison to the two men are made at Groblersdal and Komatipoort, again without success. Finally, the men are sedated with soporifics administered in cold drinks, executed with a pistol by Captain Koos Vermeulen, and cremated.

— Jacques Pauw, Into the Heart of Darkness: Confessions of Apartheid's Assassins (Johannesburg: Jonathan Ball, 1997), pp. 153-4; South Africa, Commission of Inquiry into Certain Alleged Murders, Report [of the Honourable Mr.

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Justice L.T.C. Harms] (Pretoria: Government Printer, 1990), pp. 112-15; Klaas de Jonge, "The Chemical Warfare Case," The (Secret) Truth Commission Files, November 1997, p. 19, www.contrast.org.

September 1981

In a speech before parliament, Defence Minister Malan warns of the danger posed by the red-black "onslaught" and proclaims that "[t]he security of the Republic of South Africa must be maintained by every means at our disposal." [Note: see also Malan's earlier 1980 article, "Die aanslag teen Suid-Afrika," *ISSUP Strategic Review*.] — Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), p. 247.

August 1981

SADF chief Viljoen allocates funds for a feasibility study concerning the establishment of a South African CBW program. [Note: this is very likely a response to the "discovery" mentioned in the previous entry.] — Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 12.

August 1981

During the course of "Operation Protea" in Angola, the SADF claims to discover evidence that the Cubans may be preparing to use chemical weapons. Although these claims cannot be confirmed by outside investigators, Defence Minister Magnus Malan uses the resulting concern as a pretext to take SADF generals to Angola to examine CBW protective suits and demonstrate the problematic effects that wearing them will have on combat operations. Malan insists that the SADF take measures to force the Cubans to don protective suits [in order to inhibit their operational effectiveness], causing the SADF to adopt the deceptive tactic of using smoke [projectiles] to achieve this result. The SADF also claims to have evidence that some members of the ANC's military wing received training in CBW techniques in the Soviet Union.

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 20 and 102, note 48, citing an interview with Malan.

April 1981

I. C. J. Kriel, commander of the Barnacle unit, orders Trevor Floyd to kill four SWAPO detainees being held at the 5th Reconnaissance Regiment's base. After C. Pretorius hands over the prisoners to him near Warmbad, Floyd gives them soft drinks containing sedatives that Theron had previously provided him with. Floyd places the men in his car, drives to Lanseria Airport, and loads them into a plane. They are flown to Namibia, where Theron injects them with Ketamine, Tubarine, and Scoline that Basson had allegedly given him. The four die, and are dumped into the ocean from an airplane.

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 191, 230-1.

January 1981

After SADF chief and Defence Council members meet with the Defense Minister to discuss security problems, the Defence Council orders Basson to travel abroad and secretly collect information about Western CBW programs that could be used as possible models for a South African CBW program. He is also instructed to make contacts with organizations that might provide information about the CBW capabilities of East Bloc countries. Upon his return, Basson reports that CBW programs in other countries are structured in such a way that "offensive" R&D is conducted by civilian fronts up to the point of weaponization, after which actual weaponization takes place in top secret military laboratories. [Note: Basson's description of the structure of foreign CBW programs is not entirely

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correct.]

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), pp. 11-12.

1981

ANC-aligned teacher Joe Pillay is abducted in Swaziland and brought to an observatory in the Klapperkop fort near Pretoria, where there is an underground bunker, four VIP houses, and a luxurious conference room. Major Kallie Steyn of the Division of Military Intelligence (DMI) and Colonel Andy Tailor of the Natal Security Branch interrogate Pillay. Steyn then summons an Army doctor, who administers a "truth serum" to Pillay. The teacher is kept in a state of unconsciousness, and is unable to gain control of his thoughts. After his captors learn that Pillay is not a senior ANC official in Natal, he is smuggled back to Swaziland.

— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, p. 18, www.contrast.org.

1981

Dirk Coetzee, commander of the SAP Security Branch base at Vlakplaas, from which the C[ounterinsurgency]1 "hit teams" operate, asks one of his operatives to poison Joe Slovo, head of the South African Communist Party, who is then residing in London. The plan is for this individual to smuggle an unidentified poison into Britain, arrange to meet with Slovo, and then slip the substance into his drink. [Note: no further information is provided about whether this plan was later aborted or otherwise foiled.]

— Jacques Pauw, *In the Heart of the Whore: The Story of Apartheid's Death Squads* (Johannesburg: Halfway House, 1991), p. 187.

1980

At this time the SADF's CBW R&D program supposedly consists of only one individual who works at the SF complex in Pretoria

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 5.

1980

In "Operation Winter," with the collusion of British government monitors in Rhodesia, Rhodesian special operations assets are reportedly transferred covertly to South Africa. These assets supposedly include the Rhodesian SAS, the CIO and its agents, and the Selous Scouts, as well as black "mercenaries" and "the poisoners and their poisons," all of which are incorporated into the appropriate South African departments. British and American planes may have taken part in the transfer of men and equipment.

— Jeremy Brickhill, "Zimbabwe's Poisoned Legacy: Secret War in Southern Africa," Covert Action Quarterly 43 (Winter 1992-93), pp. 58-60.

1980s-Mid 1990s

Klaas de Jonge, a leading Dutch anti-apartheid activist, ANC operative, and friend of Conny Braam, is allegedly poisoned using clothes impregnated with organophosphates. As a result, he loses an eyeball. [Note: no time frame is mentioned by Mangold; compare also the September 1987 entry below concerning Braam's own apparent poisoning. De Jonge personally participated in several underground ANC operations, including some inside South Africa itself. Later, he was entrusted with transferring information from Dutch anti-apartheid sources to the TRC, and also provided the Commission with his own research reports on covert South African operations in Europe. See Truth and Reconciliation Commission, "Statement Re: Klaas de Jonge," www.polity.org. For his own reports,

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see Klaas de Jonge, "The (Secret) Truth Commission Files," www.contrast.org.]

— Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), p. 263.

1980s

Offers are made, via contacts at WASAG Chemie in Germany, for undertaking "turn-key" projects to erect insecticide plants that can be converted to large-scale nerve agent production. These top secret programs are very contentious, and one of the primary opponents of the plan is Dr. Jean [P.] de Villiers, head of the Chemical Defence Unit and an expert responsible for defensive CW measures.

— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, p. 4, www.contrast.org, citing an 11 November 1997 letter from former SADF officer and ANC agent Dieter Felix Gerhardt.

Early 1980s

The SADF allegedly develops a 155mm artillery shell with "two compartments containing clear liquid chemicals...[that] mix when the shell is in flight and when it explodes the effect is deadly." The research on this ordinance is being carried out by the Institute of Aviation Medicine, previously known as the Military Medical Institute, in Pretoria. This shell appears to be some sort of binary projectile for nerve agents, most likely sarin, one of the more potent chemical weapons available at this time. [Note: the source for this claim is reportedly an SADF informant who was involved in setting up a "Chemical and Biological Unit". Other potential nerve agents from this period are cyclosarin (GF) and soman (GD).]

— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files,* November 1997, p. 8, www.contrast.org, citing "Chemical War Threat," *Resister: Bulletin of the Committee on South African War Resistance* 23 (December 1982-January 1983), a London-based publication.

July 1979

The South African Medical Service (SAMS) is established as a fourth arm of the SADF, alongside the South African Army, the South African Navy, and the South African Air Force. Seven separate medical battalion groups are eventually established. Previously, SADF medical units were subordinated to the command hierarchies of the three armed services to which they were attached.

— 21 August 2002 email from Chandré Gould; Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, p. 5, www.contrast.org.

1979-1987

At or near the SF's Pretoria HQ Brigadier Wouter Basson, a young SF military doctor, allegedly provides several operatives, above all Johan Theron, with Tubarine and Scoline [curare-like agents]; later, he gives them Ketamine [2-(2chlorophenyl1)-(methylamino)-(cyclohexanone hydrochloride), a veterinary anesthetic known in SA as Ketalaar]. Theron and others inject these drugs into troublesome Southwest African Peoples Organisation (SWAPO) POWs in order to suffocate them, after which their corpses are dropped into the sea from SADF aircraft. Theron kills at least 200 SWAPO members in this fashion, including five who are first put to sleep with Vesparax [secobarbital+brollobarbital+hydoxyzine] pills. With Basson's help, Theron also uses his own colleagues as test subjects by giving them cans of soft drinks and beer into which "sleeping agents" have been injected with a thin needle.

— Hooggeregshof, Die Staat teen Wouter Basson, Akte van Beskulding [Indictment] (1999), pp. 184, 218-20; Centre for Conflict Resolution, Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002, week 20, Theron testimony.

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1979

At a meeting between senior South African security force commanders and "securocrats" at Fort Klapperdorf, it is decided to enhance the effectiveness of the security forces by reorganizing them into units that are more capable of disrupting ANC bases in neighboring countries. In a document entitled "Institutions and Functions of the Special Forces," the State Security Council (SSC) concludes that SADF and SAP special operations units should be established that would "not need to answer to Parliament, but only to the SSC." These were to be financed by secret funds, develop autonomous intelligence-gathering capabilities, and recruit their operatives from all ranks of the government. These decisions result in the establishment of the SAP's Koevoet unit and the reorganization of the Bureau of State Security's (BOSS) covert Z-Squads into the Delta 40 unit, which is tasked with "monitoring certain external opponents of the regime with a view to their possible extinction." [Note: The SADF's D40 unit soon after evolved into the Barnacle unit and eventually into the Civil Co-operation Bureau, whereas personnel from the SAP's Koevoet unit were later incorporated into the C(ounterinsurgency)1 section at the Vlakplaas base.]

— Stephen Ellis, "The Historical Significance of South Africa's Third Force," *Journal of Southern African Studies* 24:2 (June 1998), p. 271; Kevin A. O'Brien, "Counter-Intelligence for Counter-Revolutionary Warfare: The South African Police Security Branch, 1979-1990," *Terrorism and Political Violence* 16:3 (Autumn 2001), p. 34.

1979

The Rhodesian CIO reportedly activates a plan to assassinate either Zimbabwe African National Union (ZANU) leader Robert Mugabe or Zimbabwe African Peoples Union (ZAPU) leader Joshua Nkomo in London. An expatriate former British Special Air Service (SAS) member, "Taffy", is recruited by the CIO. After performing successful tests on dogs, he opts to use a rifle to shoot Mugabe with a dum dum bullet into which ricin is inserted, but the operation is aborted at the last minute. The ricin had been prepared as an assassination weapon, along with thallium and parathion, by Professor Symington of the University of Rhodesia.

— Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), pp. 224-7.

September 1978

P. W. Botha replaces B. J. Vorster as Prime Minister. He quickly creates a new National Security Management System (NSMS) to coordinate all the activities of state departments related to the new "total strategy." Security forces are instructed to deal with [future] conflicts in a more efficient manner.

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 11.

4 May 1978

SADF soldiers and paratroopers are accused of using gaseous CW agents during the Cassinga raid, in which 800 people are killed. The evidence is contradictory.

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 11 and pp. 99-100, note 30.

1978

An acid-impregnated t-shirt is mailed to the daughter of Donald Woods, the editor of the *Daily Dispatch* who was at this time trying to bring the men responsible for Steve Biko's death to justice. Woods blames the Security Police for this attack. The chemical used is Ninhydrin [2.2-dihydroxy-1.3-indandione], an irritating powder used by the world's police forces to trace fingerprints on paper that stings on contact. [Note: Gould and Folb date this incident in 1977 rather than in 1978.]

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— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, p. 4, www.contrast.org, citing Patrick Laurence, "'Death Squads' venomous trail," *The [Johannesburg] Star* (30 January, 1991); Chandré Gould and Peter Folb, *Project Coast: Apartheid's Chemical and Biological Warfare Programme* (Geneva: United Nations Institute for Disarmament Research, 2002), p. 159.

1978

Dr. Paul Epstein, an American physician practicing in Mozambique for the Ministry of Health, with support from the [Quaker] American Friends Service Committee, treats large numbers of Zimbabweans from Zimbabwe African National Liberation Army (ZANLA) training camps for a bleeding disorder. At first a viral hemorrhagic fever is suspected, but a fat biopsy sent for toxin analysis reveals the presence of warfarin. This suggests that warfarin poisoning is another type of CBW used in Rhodesia. [Note: among the toxins mentioned in the Basson indictment was brodifacum, a type of "superwarfarin." See Hooggeregshof, Die Staat teen Wouter Basson, *Akte van Beskuldiging [Indictment]*, English translators' intro, p. xiii]

— Paul Epstein, "In southern Africa, brutality and death," *Boston Globe* (26 December 1987), p. 23, cited by Meryl Nass, "Anthrax Epizootic in Zimbabwe, 1978-1980: Due to Deliberate Spread?," *The PSR Quarterly* 24:2 (December 1992), pp. 206 and 209, note 71.

1978

A member of the Rhodesian Selous Scouts admits that "they" had tried both chemical and biological warfare techniques to kill terrorists. [Note: the Defense Intelligence Agency report listed as a source for this claim is incorrectly cited, according to Burgess and Purkitt.]

— Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin's, 1999), pp. 218 and 442, note 8; compare Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 99, note 27.

12 September 1977

African anti-apartheid leader Steve Biko dies in prison after being cruelly abused by his jailers. In the official government investigation that follows, no one is found to be responsible for his death. This callous series of events has a traumatic impact on both black South Africans and the international community. [Note: according to Dr. Schalk van Rensburg, Laboratory Services Director of Roodeplaat Research Labs, Dr. Wouter Basson later claimed that Biko had been poisoned with thallium, which precipitated the activist's outburst of irrational behavior while in police custody. See Dr. Schalk van Rensburg, testimony at TRC hearings, 9 June 1998, www.doj.gov.za.] — James Barber, South Africa in the Twentieth Century: A Political History — In Search of a Nation State (Oxford: Blackwell, 1999), p. 196.

1977

500 ANC fighters are fed poisoned food in the Catengue camp in Angola, but are saved from harm due to timely treatment by a doctor. In 1981 the ANC claims to have uncovered the perpetrators, including Kenneth Mahamba, the commander of the ANC's Pango camp who had supposedly been recruited by the Security Branch of the SAP. — Chandré Gould and Peter Folb, *Project Coast: Apartheid's Chemical and Biological Warfare Programme* (Geneva: United Nations Institute for Disarmament Research, 2002), p. 159, citing the ANC's submission to the Truth and Reconciliation Commission.

1977

In a Defense White Paper, Defense Minister P. W. Botha argues that a "total strategy" is required to resist the

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enemy's "total onslaught" on South Africa. This must involve "all the means available to the state..."

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview,"
The Nonproliferation Review (Fall/Winter 2000), p. 11.

1976

The SAP's use of firearms against Soweto protesters, and the resulting diplomatic setbacks, cause SADF head General Constand Viljoen to recommend the development of "alternative crowd control methods."

— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview,"

1976

The Nonproliferation Review (Fall/Winter 2000), p. 11.

During a reconnaissance mission against guerrillas operating near the Cochemane administrative center in the Tete province, Selous Scouts see that the town draws its water from a single reservoir and pour a "lethal dose of poison" into the tanks. Rhodesian CIO intercepts confirm that 200 people suddenly die. [Note: the "poison" in question may be a reference to *Vibrio cholerae*, not a chemical agent. See 1975-1980 entry above.]

— Henrik Ellert, *The Rhodesian Front War: Counter-Insurgency and Guerrilla War in Rhodesia, 1962-1980* (Gweru, Zimbabwe: Mambo Press, 1989), pp. 112-113.

Mid-Late 1970s

Various "dirty tricks" poisoning operations are allegedly carried out in Rhodesia under the rubric of "Operation Alcora," a joint Portuguese, Rhodesian, and South African effort. Some "very sophisticated" CW weapons are employed after they are developed at the South African Police (SAP) Forensic Sciences Laboratory in Visagie Street, at this time under the control of Major General Lothar Neethling (nicknamed "Mengele"). [Note: Klaas de Jonge, author of an interesting series of reports on South African covert operations — including the one cited below — was a high profile Dutch anti-apartheid activist who was later apparently attacked and injured by means of poisoned clothing. See the 1980s-Mid 1990s? entry below.]

— Klaas de Jonge, "The Chemical Warfare Case," *The (Secret) Truth Commission Files*, November 1997, p. 4, www.contrast.org, citing an 11 November 1997 letter from former SADF officer and ANC agent Dieter Felix Gerhardt.

15 October 1975

United African National Council activist Dr. Edson Sithole and his secretary Miriam Mhlanga are kidnapped outside the Ambassador Hotel in Salisbury by Rhodesian Special Branch operatives acting under the orders of the force's Head of Operations Winston Hart. They are brought to the Selous Scout base at the Mount Darwin fort, where they are given lethal injections of sodium pentathol. Their corpses are dumped in a mine shaft on a nearby farm. Disinformation is generated to cover up the truth.

— David Martin, The Use of Poison and Biological Weapons in the Rhodesian War: Lecture for University of Zimbabwe War and Strategic Studies Seminar Series on 7 July 1993 (Harare: Southern African Research and Documentation Centre, 1993), p. 5.

1975-1980

The SADF confiscates Cuban vehicles in Angola outfitted with air filters and medical bags containing nerve agent antidotes and protective masks, leading SADF officials to believe that Cuban troops intend to employ chemical agents. These officials conclude that everything possible should be done to protect SADF personnel, including buying items on the international black market or stealing technology.

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— Chandré Gould and Peter I. Folb, "The South African Chemical and Biological Warfare Program: An Overview," *The Nonproliferation Review* (Fall/Winter 2000), p. 11.

1975-1980

The Rhodesian CIO and Selous Scouts use *Bacillus anthracis*, *Vibrio cholerae*, and thallium-contaminated foodstuffs, as well as organophosphate-impregnated clothing [see entry immediately above], according to former Rhodesian army contractors. [Note: several of the claims regarding anthrax bacteria use remain unverified.] — Jeremy Brickhill, "Doctors of Death," *Horizon* [Harare] (March 1992), pp. 14-17, cited by Meryl Nass, "Anthrax Epizootic in Zimbabwe, 1978-1980: Due to Deliberate Spread?," *The PSR Quarterly* 24:2 (December 1992), pp. 206 and 209, note 73.

1975-1 September 1978

The Selous Scouts set up a secret laboratory at the André Rabie barracks, to which three medical doctors from the regular Rhodesian Army are seconded. Large consignments of the denim clothing favored by guerrillas are purchased from middlemen and soaked in "steel vats containing a solution of odourless and colourless poisons" [probably organophosphates]. Several prisoners are forcibly brought to the Mount Darwin Fort and apparently used as "human guinea pigs" to test the effects of the poison. The contaminated clothes are then supplied to guerrillas with the help of Reverend Arthur Kanodareki, a paid CIO agent, and somewhere between 67 and "many hundreds" of guerrillas then die after absorbing the poison through their skin. The program is terminated after the Special Branch commander learns of the deaths of innocent rural villagers to whom some the poisoned clothes had been sold by unscrupulous local agents, agents who had been recruited by the Scouts and the Special Branch and had been paid a Z1000 dollar bonus for each confirmed "guerrilla" death. Symptoms of intoxication are that after seven days, the victims develop a fever and start to bleed from the nose and mouth. [Note: these symptoms are not consistent with most toxic organophosphate compounds, but could be due to warfarin. Fever is also sometimes present in thallium poisoning.]

— Henrik Ellert, *The Rhodesian Front War: Counter-Insurgency and Guerrilla War in Rhodesia, 1962-1980* (Gweru, Zimbabwe: Mambo Press, 1989), pp. 109-12; see also Jeremy Brickhill, "Zimbabwe's Poisoned Legacy: Secret War in Southern Africa," Covert Action Quarterly 43 (Winter 1992-93), p. 8; Ken Flower, *Serving Secretly: An Intelligence Chief on Record. Rhodesia into Zimbabwe, 1964 to 1981* (London: John Murray, 1987), p. 137.

Mid-1970s

The Rhodesian Central Intelligence Organisation (CIO) asks doctors and chemists from the University of Rhodesia to identify and test a range of chemical and biological agents that can be used as a "fear factor" in the war against nationalist guerrillas. Anatomy [Department] professor Dr. Robert Symington, head of the clinical program, recruits several colleagues and students to carry out the research. SADF Forensic Department experts and intelligence personnel have access to the most secret Rhodesian camps and likely play some part in the development of CBW agents, which include organophosphate poisons, thallium, warfarin [an anticoagulant rodenticide], unspecified bacteriological agents, and anthrax. Symington later moves to South Africa and reportedly collaborates in the development of a top secret South African CBW program (codenamed "Red Mountain") prior to his death. [Note: this codename is not mentioned in any other source. Also, Brickhill was an ANC activist who was targeted for assassination and was severely injured in a bombing attempt.]

— Jeremy Brickhill, "Zimbabwe's Poisoned Legacy: Secret War in Southern Africa," Covert Action Quarterly 43 (Winter 1992-93), pp, 7-10.

1974-1977

In 1974 De Villiers prepares a 10-page report, which estimates that building a CBW program would cost 5 million

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rand and concludes that the Soviet Union is too well armed with CBW and would thus retaliate against any CBW attack. The SADF postpones its plans to develop an offensive CBW program, but supports a minimal CBW R&D program which is not well-developed. By 1977, De Villiers changes his tune and displays far more interest in the possibility of offensive CW use, but says little about using BW.

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 5; and Chandré Gould and Peter Folb, *Project Coast: Apartheid's Chemical and Biological Warfare Programme* (Geneva: United Nations Institute for Disarmament Research, 2002), pp. 32-4.

Early 1973 on

The recently-formed Rhodesian Selous Scouts adopt and adapt British counterinsurgency techniques used in Kenya and Malaya by experimenting with new types of weapons, including CW and BW. They seek to develop poisons to impregnate toxins into blue jeans used by guerrillas as well as poison pens to assassinate guerrilla leaders, and make efforts to contaminate rivers and water supplies with chemical and biological agents. [Note: see 1975-1 October 1978 and 1976 entries below for more details.] Rhodesia has one "rudimentary" CBW plant that receives outside aid from South Africa. [Note: the "rudimentary" CBW plant mentioned here may be an allusion to the lab later set up in the Selous Scouts barracks, on which see the 1975-1 September 1978 entry below, but it could also indicate that another, unnamed facility existed.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 8-9.

1970s and 1980s

South African [special operations] units fighting against guerrillas in Namibia and Angola, such as the 5th Reconnaissance commandos, the Koevoet ("Crowbar") unit, and the SADF SF's D[elta]40 unit [composed largely of Rhodesians], employ unconventional counterinsurgency tactics, including the use of chemical and biological agents. [Note: see several entries below for details concerning the CW and BW agents employed.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 9.

Early 1970s

Certain SADF generals ask the CSIR for "aggressive" CBW agents and express a growing interest in starting a new CBW industry, but the head of CSIR's Chemical Defence Unit (CDU), J. P. de Villiers, initially responds that such a program is unsuitable for Africa and too complex and expensive to develop. [Note: Burgess and Purkitt list De Villiers' first name as Wim, but in other sources he is identified as J. P.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 5.

Late 1960s and Early 1970s

Israel and South Africa increasingly cooperate with each other in the development of armaments during this period. This cooperation is focused mainly on nuclear weapons and missile programs, but may also have included collaborative efforts in CBW R&D. [Note: the study cited below provides no corroborating evidence concerning cooperation between the two countries in the CBW field, although there are clear indications of growing Israeli-South African cooperation in other weapons fields.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 5-6.

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1960s-1970s

The Elektroniks, Meganies, Landbou en Chemies (EMAC: Electrical, Mechanical, Agricultural and Chemical) lab facility at Special Forces (SF) headquarters works on and "innovate[s]" weapons, including chemical and biological agents. [Note: other sources provide no indications that EMLC actually worked on biological agents. See, e.g., Chandré Gould and Peter Folb, *Project Coast: Apartheid's Chemical and Biological Warfare Programme* (Geneva: United Nations Institute for Disarmament Research, 2002), pp. 35-6; and the EMLC description in the CW Facilities section.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 4.

Mid-1960s

Due to Egyptian use of chemical weapons in Yemen (1962-67) and concerns that Jamal `Abd al-Nasir may have provided some of these to the ANC, South Africa realizes the importance of updating its CBW program. CSIR "works on" mustard and protective masks to replace the WWII-era masks still used by the SADF.

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 4.

1963

South Africa becomes a party to the 1925 Geneva Gas Protocol banning the use of chemical and biological weapons in warfare.

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 4.

1961

The U.S. transfers 6 tear gas rifle shells and 4 tear gas grenades to the South African government between 1 January 1961 and 31 December 1961. Munitions exports still pending as of 15 July 1961 include 150 tear gas grenades (CF [?]) and 150 "3-way" tear gas grenades (CN [chloroacetophenone, commercially known as Mace]). [Note: the reference to "CF" is almost certainly a reference to CS. Also, it is unclear what "3-way" tear gas grenades are.]

— U.S., Department of State, "United States-South African Commercial Relations and Arms Traffic," 21 July 1963 "Confidential" airgram #CA-915 to "USUN New York", pp. 6, 8.

Early 1960s

SADF personnel sent to gain counterinsurgency experience in Angola observe firsthand how the Portuguese military employs CBW to make defoliants and napalm, mine trails, and poison wells and waterholes to counter guerrilla actions. Portuguese forces also drug prisoners and throw them out of airplanes. [Note: in this and several subsequent entries, there are references to unspecified poisons or toxic materials. These substances are most likely chemical agents, but it is possible that some actually refer to biological toxins, chemical substances produced from living organisms, or biological agents.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 7.

1960s

CSIR continues to work on tear gas and CX [phosgene oxime] powder used for tracking, and Dr. Joynt outfits SADF Cessna aircraft to spread CX powder. [Note: since CX's effects are immediate and painful, it is unclear exactly how the South Africans used it for "tracking."]

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— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 4.

March 1960

The police fire into a crowd of 5,000 anti-apartheid activists who had gathered around the police station in Sharpeville to protest the discriminatory Pass Laws, killing 67 and wounding 186. Many are shot in the back as they flee. The scale of this "Sharpeville Massacre" has a profound effect on South African blacks, and precipitates a series of mass protests and boycotts. The government declares a state of emergency, arrests African leaders, and bans the African National Congress (ANC) and the Pan Africanist Congress (PAC). Soon after, these two organizations form clandestine armed wings — respectively, Umkhonto we Sizwe (Spear of the Nation) and Poqo ("Pure") — in order to continue waging their struggle.

— James Barber, South Africa in the Twentieth Century: A Political History — In Search of a Nation State (Oxford: Blackwell, 1999), pp. 165-6.

1960

After taking an NBC warfare course in the UK, Dr. Vernon Joynt of Mechem and the CSIR helps initiate a new phase of the South African CW program by correcting a problem with the tear gas used to control riots and hunt militants hiding in the bush.

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 4.

1960

South Africa uses tear gas extensively to suppress the Pongoland uprising in Transkei.

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 4.

1946

South Africa dumps large quantities of munitions containing mustard agent into the sea, but does not roll back its CBW program entirely. The literature from its World War II CBW program is retained, and the South African Defense Force (SADF) maintains a small military program related to CBW R&D. The government continues to outsource a number of basic research projects to Afrikaans-speaking universities and other government-supported institutions. These projects are usually carried out under the umbrella of the Council for Scientific and Industrial Research (CSIR).

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 3-4.

1941-1945

CW agents are manufactured by South Africa at the Klipfontein and Firgrove factories in response to a request by the British Ministry of Supply. The two factories have 1,697 employees and are capable of producing 250 tons of different chemical warfare agents each month. The Klipfontein Organic Products plant produces phosgene and mustard. The production of chemical agents and associated weapons is supervised by Brigadier General Van der Bijl, Director General War Supplies, and Brigadier General Van der Spuy, Director General Technical Services. After the war, the production focus is shifted to DDT and other insecticides.

— Ian van der Waag, review of The Rollback of South Africa's Chemical and [sic] Biological Warfare Program, Journal of Military History (January 2002), p. 272; G. C. Gerrans, "Historical Overview of the South African Chemical Industry, 1896-1998," Chemistry International 21:3 (May 1999), p. 76.

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1939-1945

The Director General of War, H. J. van der Bijl, oversees the production of CW weapons and the taking of defensive measures to protect South African troops against chemical and biological attack. [Note: there is a slight temporal and factual discrepancy between this entry and the entry immediately below.]

— Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 2-3.

1936

Jan Smuts predicts the broad [future] use of CBW after he and other air theorists take note of the Italian use of [mustard] in Ethiopia.

— Ian van der Waag, review of The Rollback of South Africa's Chemical and [sic] Biological Warfare Program, *Journal of Military History* (January 2002), p. 272.

1930s on

The South African mining industry develops explosives "linked with" chemical agents. The Anglo-American Corporation, Anglo-Vaal, and other companies are involved. [Note: the precise meaning of this phrase is unclear.] — Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), p. 2.

1915

South African leaders become aware of the tangible threat posed to their own troops by CW after battlefield use of chemical agents by the Germans on the Western Front.

— Ian van der Waag, review of The Rollback of South Africa's Chemical and [sic] Biological Warfare Program, *Journal of Military History* (January 2002), p. 272.

1896

South Africa's chemical industry is officially established, although earlier discoveries of diamond, gold, and coalfields had already led to a "rapidly growing demand for explosives."

— G. C. Gerrans, "Historical Overview of the South African Chemical Industry, 1896-1998," *Chemistry International* 21:3 (May 1999), p. 71.

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