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**Project Coast:
Apartheid's Chemical and Biological
Warfare Programme**

Chandré Gould and Peter Folb

Edited by Robert Berold

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CONTENTS

	<i>Page</i>
Foreword by Desmond Mpilo Tutu	v
Preface by Laurie Nathan and Patricia Lewis	vii
Acknowledgements	xi
Acronyms	xiii
Introduction	1
Summary of Findings	7
The Botha Regime and Total Strategy	11
The Regional Context	21
Chemical Weapons in South Africa Prior to Project Coast	31
Project Coast's Links with the Police and Operational Units of the Military	47
Getting Down to Business	57
Roodeplaat Research Laboratories	69
The Private Companies	103
The De Klerk Years (1989-1993) and the Use of CBW Agents	115
The Phases of Project Coast's Development	143
Allegations of Fraud: The Sale of Delta G Scientific and RRL	145
The Intention of the Programme	153
Incidents of Poisoning	159
Structure and Management of Project Coast	169
International Links	191
Closing Down	209
Basson's Arrest and the TRC Hearing	223
The Criminal Trial of Dr Wouter Basson	231
Notes	241

FOREWORD

Dastardly in its concept and execution, Project Coast was a reflection of the inherent evil of apartheid. As Chair of the Truth and Reconciliation Commission, I had the privilege of participating in an extraordinary and unique experience. I heard people tell of their part in some of the most terrible crimes against their brothers and sisters. I heard them plead for forgiveness from those they had wronged and I saw the spirit of humanity triumph in the forgiven and the forgiving.

Forgiveness depends on repentance, which has to be based on an acknowledgement of what was done wrong, and therefore on disclosure of the truth, you cannot forgive what you do not know.

It was therefore critical that the Truth and Reconciliation Commission, and then later the High Court, was able to expose the truth of Project Coast to the people of South Africa and the rest of the world.

This book by Chandré Gould and Peter Folb makes a vital contribution to our understanding of how the apartheid regime planned the deliberate use of chemical and biological agents on people, how those involved put together a determined programme to acquire knowledge and materials to develop the means to poison people within and outside South Africa's borders and how corruption inside that programme eventually led to their downfall. It is only when we have this understanding that we can learn and move on from the past. It is only then that we can prevent this happening again somewhere else.

I thank Chandré Gould, Peter Folb, the Centre for Conflict Research in Cape Town and the United Nations Institute for Disarmament Research in Geneva for publishing this account of Project Coast. A huge amount of work has gone into producing this account of the inhumanity at the heart of apartheid. What we learn from this research is what now allows South Africa to work tirelessly in the international arena to prevent the development and use of chemical and biological weapons. It is only by having dealt with the truth of our past, however painful and difficult that

might have been, that we can grow in the light and assist others in their struggle to be free.

It is my fervent hope that, by spreading knowledge, this book will help in the fight against the spread of chemical and biological weapons. I pray that shedding light on the sordid past of apartheid's chemical and biological warfare programme will provide a salutary reminder to people that we must do all we can to uphold international law and leave no stone unturned in our efforts to prevent the deliberate use of disease as a weapon against people.

God bless you.

Desmond Mpilo Tutu
Archbishop Emeritus
Cape Town
October 2002

PREFACE

In the bleakest of days during apartheid in South Africa, despite its membership of the 1972 Biological Weapons Convention, a programme to poison the regime's foes with chemical and biological warfare agents was conceived in great secrecy at the heart of the military establishment.

Project Coast was to develop a range of chemical and biological agents designed to control, poison and kill people within and outside South Africa. Large quantities of riot gas were produced, as were methaqualone and MDMA. Other chemical and biological agents were produced in small quantities and were used in the covert murders and attempted murders of individuals who were seen as a threat to the apartheid government. This included members of the police and the armed forces and, at least once, an organism was used with the intention of deliberately infecting a whole community.

That so much could have been done and by so few people during the era of sanctions was due to the secrecy and lack of civil control over the personnel involved and to the complicity of foreign actors. The project was funded through the back door and its leader was given *carte blanche* to do whatever he saw fit in terms of learning and buying what he could from abroad.

Project Coast: Apartheid's Chemical and Biological Warfare Programme written by Chandré Gould and Peter Folb, tracks the history of Project Coast. It was through the revelations at the Truth and Reconciliation Commission, the arrest of Wouter Basson and then later the criminal prosecution of Basson in the High Court in Pretoria that the pieces of the puzzle could be fitted together. Of course, not everything is known and many documents are still missing, but enough has been revealed for us to learn some sobering lessons from South Africa's experience.

In the early nineties, coming clean about (and dismantling) its nuclear weapons programme allowed the new South Africa to take a moral lead in the prevention of nuclear weapons proliferation and in pursuit of global nuclear disarmament. Perhaps in much the same way, the revelations over Project Coast and the transparency with which the South African

government has dealt with them, has enabled South Africa to vigorously pursue the global effort to ban biological weapons and take a lead role in the negotiations for strengthening the 1972 Biological and Toxin Weapons Convention. South Africa's disarmament policy is coherent and consistent in its opposition to weapons of mass destruction in all their forms and in all countries. Having come clean on its experience during the apartheid years lends real credibility to South Africa's ethical and practical stance on international disarmament. South Africa went to the edge and beyond and then—under a new, enlightened regime—came back. Others can do the same.

We have a great deal to learn from Project Coast. It warns us of how a few people, with political and financial backing, lack of financial controls, lack of a moral and ethical framework, and lack of due civil process, can manufacture chemical and biological agents to achieve the assassination of individuals and threaten whole communities. Now, with the advances in genetic engineering leading to biological agents that could be engineered to affect only certain groups of people, who knows what the future holds and who knows who may get their hands on such organisms. If the apartheid regime of South Africa had been able to acquire such a capability, one can only shudder at how it might have been used.

We are particularly grateful for the tireless efforts over several years that Chandré Gould and Peter Folb have put into producing this in-depth piece of research. It could not have been done without the editing skills of Robert Berold and the careful monitoring of the trial by Marlène Burger. We should like to thank also the international advisory and review panel for their expert input and others, both in government and in non-government circles, who gave their time freely to respond to questions and to comment on the content. Special thanks go to Steve Tulliu and Anita Blétry for bringing the book to production, and to Archbishop Emeritus Tutu for his foreword.

In particular we thank the funders who have made the whole work possible: The Ford Foundation, The Government of Norway, the Friedrich Ebert Stiftung and the Ploughshares Fund.

It is our wish that this work will throw light on the murky world of chemical and biological agent proliferation and provide much food for thought about how such poison can be used and how its use can be

prevented. We need to think about these issues now. Each day brings new developments in biotechnology and a new urgency. The biosciences are getting ahead of the mechanisms we have to control them and this could have far-reaching and disastrous consequences for humanity. If there is to be any benefit from the human rights abuses created by Project Coast, then let it be that we learned from it and prevented anything like it from ever happening again.

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This research has been generously funded by the Ford Foundation, the Norwegian government and the Friedrich Ebert Stiftung (FES). The Ploughshares Fund made funds available for monitoring the criminal trial of Dr Wouter Basson. Without their support this report would not have been possible. The research project was hosted by the Centre for Conflict Resolution (CCR).

Members of the international advisory panel which reviewed the product and process of research were a source of support. Their knowledge of the subject have informed the analysis of this unusual chemical and biological warfare programme. The authors would like to thank Prof. Milton Leitenberg, Prof. Julian Perry Robinson, Dr Barbara Hatch Rosenberg, Dr Jean Pascal Zanders, Dr Oliver Thränert and Dr Patricia Lewis. We would also like to thank Patricia Lewis and UNIDIR for publishing this report. And special thanks to Archbishop Emeritus Tutu for his foreword to the book.

In October 1999 members of the international review panel met to discuss the first draft of this report. The meeting was organised by the Centre for Conflict Resolution and the Friedrich Ebert Stiftung (FES). The meeting provided the authors with an opportunity to discuss their work and findings and to gain perspective on the programme. We wish to thank FES for their contribution to the meeting, as well as CCR and all those who attended the meeting.

Journalist Peta Thornycroft contributed to the understanding of the use of poisons in Rhodesia in the late 1970s; details thereof in this report are the result of her investigations. Marlène Burger spent more than two years in the Pretoria High Court monitoring the trial of Dr Wouter Basson. Her daily reports are a source of much of the information contained in this report. Marlène Burger was responsible for researching and writing the text pertaining to the relationship between United States gynaecologist, Larry Ford, and Project Coast. This information appears in the chapter entitled International Links.

Prof. Alastair Hay gave his time to read and comment on drafts of this report.

All the scientists who made themselves available to the authors over a period of three years for repeated interviews and questioning contributed to the authors' understanding of the programme reflected in this report. Many of them faced difficult personal circumstances and decisions in deciding to tell their stories and their courage in speaking out is acknowledged.

Chandré Gould

Peter Folb

ACRONYMS

ANC	African National Congress
BTWC	Biological and Toxins Weapons Convention
BW	Biological warfare
BZ	a-hydroxy-a-phenylbenzeneacetic acid, 1-azabicyclo[2.2.2]oct-3-yl ester, 3-quinuclidinyl benzilate. An incapacitating agent.
CBM	Confidence Building Measure
CBW	Chemical and biological warfare
CCB	Civil Co-operation Bureau
CDU	Chemical Defence Unit (of the Centre for Scientific and Industrial Research)
CEO	Chief Executive Officer
CIO	Central Intelligence Organisation (in Rhodesia)
CMC	Co-ordinating Management Committee
CR	dibenz(b,f)-1,4-oxazepine (teargas)
CS	O-Chlorobenzylidene Malononitrile (teargas)
CSIR	Centre for Scientific and Industrial Research
CW	Chemical warfare
CWC	Chemical Weapons Convention
EMLC	Afrikaans acronym: Electronies, Meganies, Landbou and Chemies (Electronics, Mechanical, Agricultural, Chemical)
Frelimo	Mozambican Liberation Front
MDMA	N,alpha-Dimethyl-1,3-benzodioxole-5-ethanamine (3,4-methylenedioxyamphetamine) or Ecstasy
MI	Military Intelligence
MPLA	Popular Movement of the Liberation of Angola
NBC	Nuclear, Biological, Chemical
NIA	National Intelligence Organisation
OSEO	Office for Serious Economic Offences
PLAN	People's Liberation Army of Namibia
RRL	Roodeplaat Research Laboratories
SADF	South African Defence Force
SAMS	South African Medical Services
SANDF	South African National Defence Force (after April 1994)
SAP	South African Police
SAPS	South African Police Service (after 1994)

SRD	Systems Research and Development
SWAPO	South West African People's Organisation
TRC	Truth and Reconciliation Commission
UNIDIR	United Nations Institute for Disarmament Research
UNITA	National Union for the Total Independence of Angola
VNOR	Armscor's Defence and Research Council
ZANLA	Zimbabwe African National Liberation Army
ZANU	Zimbabwe African National Union
ZAPU	Zimbabwe African People's Union
ZIPRA	Zimbabwe African People's Revolutionary Army

INTRODUCTION*

Under apartheid, South Africa's white minority regime felt threatened from within and outside its borders. The survival of the State was paramount in the minds of politicians and the military. Politicians and military leaders shared a common belief that the country was at war, a total war which required a total response. To this end a nuclear programme was initiated in the 1970s and the arms industry grew to considerable size.¹ The leaders of the country decided to include chemical and biological weapons in their extensive arsenal, if only so that the military would have at its disposal a full range of unconventional weapons.

The chemical and biological warfare (CBW) programme, code-named Coast, started in 1981 and officially ended in 1995. The purpose of Project Coast can be summarised as follows:

- To develop chemical warfare agents that could be used by security forces to control crowds;
- To do research into offensive and defensive chemical and biological warfare;
- To develop offensive chemical and biological weapons for operational use;
- To develop defensive training programmes for troops;
- To develop and manufacture protective clothing.²

The South African Defence Force (SADF) philosophy with regard to chemical and biological warfare included “the right to reactively use non-lethal chemical warfare”, “the integration of chemical warfare into all conventional actions”, and “the acceptance of the use of chemical warfare on a proactive basis to ensure the survival of the state, for example, in

* Research findings of the Centre for Conflict Resolution's chemical and biological warfare research project.

controlling the massive violence in the current revolutionary situation".³ The stated objectives of the programme reveal that chemical warfare (CW) operations were envisaged which would have included the use of CW agents inside the country.⁴ Indeed it becomes clear that the primary motivation for the initiation of the programme was to deal with internal political opposition rather than to develop typical chemical or biological weapons.

Evidence collected by the authors indicates that the chemical and biological agents produced were mainly intended to be used for assassination purposes and for crowd control. No evidence collected suggests that chemical or biological agents, apart from the teargas CR, were produced on a large scale for weaponization.⁵ This is not to suggest that the programme was innocuous or innocent. The intentions of those responsible for the programme are uncertain, but it is clear that biological agents were produced that might be used to kill individuals and which had a potential to cause widespread disease or even epidemics. There was also an intention to develop novel and sometimes bizarre agents for crowd control.

Through Project Coast South Africa violated its commitment to the Biological and Toxins Weapons Convention (BTWC) signed in 1972 and entered into force in 1975, six years prior to the initiation of Coast. There are documents confirming that in 1993, when South Africa signed the Chemical Weapons Convention (CWC), there was an intention to hide the production and stockpiling of CR and to violate the conditions of the Convention governing the destruction of chemical warfare agents. In 1997 the Project Officer of Coast, Dr Wouter Basson, was arrested by the narcotics division of the South African Police Service on suspicion of dealing in the street drug Ecstasy (MDMA). Shortly after his arrest, trunks containing Project Coast documents were found at the home of one of his associates. These documents were seized by the National Intelligence Agency (NIA) and made available to the Truth and Reconciliation Commission (TRC) and the Attorney-General's office. Both the TRC and the Attorney-General pursued investigations into the activities of the Project and Dr Basson.

The TRC's investigation, which began in January 1998, resulted in a public hearing in June that year. Before Basson's arrest, little was known about the chemical and biological warfare programme, although investigative journalists had exposed the existence of the programme and details pertaining to the privatisation of its front companies which did the

work of the project. The TRC heard testimony from scientists who worked at the front companies, from the managing directors of these companies, from the Project Officer, and from the Project Manager, Gen. Daniel Knobel who was the SADF Surgeon-General from 1988-November 1997.

This testimony, together with documents made available to the TRC by Gen. Knobel and documents found in the trunks, were made public during the hearing. Over a two-year period the authors collected additional information through interviews with the scientists and others associated with the programme. All interviews conducted were recorded and the notes from these discussions returned to the interviewees for verification. The notes from all interviews referred to in this text were verified by the interviewees and form part of the research record. Most interviews were conducted in face-to-face meetings but some were conducted via e-mail or telephonically. Additional documents were made available by certain of the scientists. All documents were summarised in a relational database and form part of the record of this research project.

The criminal case against Dr Wouter Basson began in the Pretoria High Court in October 1999. It was concluded on 11 April 2002 when Judge Hartzenberg found Basson not guilty of any of the charges against him. Evidence presented at the trial was an additional source of information for the authors. The trial was monitored on a daily basis by Marlène Burger who made reports of the testimony available to Chandré Gould. These reports formed the basis for weekly summaries of the trial, which were widely distributed via the internet. The unpublished daily reports form part of the record of this research.⁶

Chronology of Project Coast⁷

- 1979 White Paper on Defence outlines Total Onslaught and Total Strategy thinking.
- 1981 Minister of Defence, Gen. Constand Viljoen, approves the establishment of Project Coast.
- 1982 Establishment of Delta G Scientific and Roodeplaat Research Laboratories (RRL), the front company chemical and biological warfare facilities of Project Coast.
- 1988 Defensive programme of troop training begins.

- 1988 Delta G Scientific produces a large quantity of methaqualone.
- 1989 Project Coast produces 20 tons of CR of which 10 tons were used by the Army to fill munitions.
Head of Research at RRL prepares a list of biological agents formulated for application which he gives to members of the South African Police and SADF.
- 1990 February: Unbanning of the African National Congress (ANC) and other political organisations opposed to apartheid.
October: The Defence Council decides that research and weaponization of CR, BZ, MDMA and methaqualone derivative should go ahead.
- 1991 March: President F.W. De Klerk orders that no lethal chemical agents should be produced by Project Coast.
- 1992 Office for Serious Economic Offences investigation begins.
- 1992 October: the Co-ordinating Management Committee of Project Coast approves the speeding up of all international procurement activities in anticipation of South Africa signing the Chemical Weapons Convention.
- 1993 14 January: Signing of the Chemical Weapons Convention.
23 January: Alleged destruction of drugs and chemical agents produced by Project Coast by dumping them in the sea.
February: Final delivery of MDMA from Delta G Scientific to Basson.
- 1995 Official closure of Project Coast.
- 1997 January: Basson arrested, in possession of a quantity of MDMA.
Truth Commission investigation into Project Coast begins.
- 1998 TRC Hearing on chemical and biological warfare begins on 8 June and concludes on 31 July.
- 1999 October: Criminal trial of Wouter Basson begins in the Pretoria High Court.
- 2002 April: Conclusion of the trial of Dr Wouter Basson in the South African High Court.

South Africa and the CBW Disarmament Regimes

Chemical and Biological Warfare Conventions			South Africa	
	Signed	Entry into Force	Signature	Ratification
Geneva Protocol	17 June 1925	8 Feb. 1928	17 June 1925	22 Jan. 1930
BTWC	10 April 1972	26 March 1975	10 April 1972	3 Nov. 1975
CWC	13 Jan. 1993	29 April 1997	14 Jan. 1993	13 Sep. 1995

SUMMARY OF FINDINGS

On the basis of the available evidence, the following conclusions can be reached about the South African chemical and biological warfare programme:

- Whilst South Africa was responsible for the production of lethal chemical warfare agents on a large scale for the Allied Forces during World War II, there is no evidence to suggest that this production was continued after the end of the war.
- The perception of threat by the apartheid government during the 1970s, combined with the country's strong material base capable of developing and producing armaments, provided the context within which a chemical and biological warfare programme was deemed necessary to the security of the country.
- No reliable evidence has been found to support the idea that South African Defence Forces troops, or UNITA troops, faced chemical attack during their involvement in the war in Angola.
- Documentary and testimonial evidence shows that chemical agents were used by the Rhodesian security forces during the Zimbabwean war of independence. There is limited evidence that biological agents were used during that war. A link between the use of chemical and biological warfare agents in Rhodesia and Project Coast cannot be established on the basis of the evidence.
- The functions of Project Coast were carried out by three official front companies designed to conceal the SADF's involvement in CBW research, development and production. Other private companies provided services to the Project. Most of these private companies relied upon SADF contracts for their existence.

- The stated intention of Project Coast was to develop crowd control agents for domestic use and the provision of defensive equipment for use by the SADE. Delta G Scientific was responsible for the production of ton quantities of CR. There is no evidence to suggest that Delta G Scientific produced or stockpiled chemical warfare agents on a large scale other than CS and CR. The production of a ton of methaqualone and a ton of MDMA cannot be explained as having been for use as CW. The purpose of the production of these street drugs remains unknown.
- RRL was responsible for the research and development of chemical and biological agents which were untraceable *post-mortem*. Testimony from the scientists involved in these projects and RRL documents show that they believed that the substances would be used in covert operations to assassinate individuals. Animal experiments were conducted to test the efficacy of the poisons. A range of lethal poisons and bacterial pathogens was offered by RRL in their Verkope list.
- There is no evidence to suggest that RRL produced or stockpiled large quantities of chemical or biological warfare agents.
- The murder of individuals who posed an apparent threat to the security of the apartheid government was the primary goal of the covert units of the SADF's Special Forces, the CCB and its forerunner, Barnacle. This was not restricted to opponents of apartheid but extended to SADF members who were seen as a threat to the secrecy of SADF operations. Members of the South African Police and Special Forces unit of the SADF were the recipients of chemical and biological warfare agents for the purpose of assassination. At least once biological agents were used with the intention of harming the health of a whole community.
- The SADF and police made use of CR to suppress domestic opposition to apartheid but did not reveal that the teargas being used against civilians had changed from traditional CS gas, despite requests from a member of the health professional community for information.
- The manufacture and testing of protective clothing was conducted by private companies contracted by the SADE. The work conducted at these companies was outside the management and control of the Coordinating Management Committee of Project Coast or of the Surgeon-

General. Private companies were also responsible for the manufacture of some covert weapons.

- The production of BZ was authorised by the CMC yet there is no evidence to show that the agent was ever produced on a large scale by Delta G Scientific (or RRL). The Judge found that ton quantities of BZ had been purchased by Project Coast, of which some was used in combination with cocaine to fill weapon prototypes. Indications are that BZ may have been the substance used in the attack on Mozambican troops in an incident in January 1992 but no confirmation of this is available.
- Project Coast evaded both the normal financial accounting systems of the Defence Force as well as the standard security checks to which secret projects should have been subjected. The Minister of Defence was ultimately responsible for the financial accounting of the project. The Surgeon-General, who was responsible for the management of the Project, failed to exert authority over the Project and Project Officer.

THE BOTHA REGIME AND TOTAL STRATEGY

The appointment of P.W. Botha as Minister of Defence in South Africa in 1968 signalled a change in the understanding of the security situation both in South Africa and in the southern African region. Instead of focusing on threats directed at South Africa, Botha espoused a broader vision of security, encompassing the East-West global ideological conflict and South Africa's role in it. Three themes predominated in his speeches: that the West was threatened by Soviet expansionism, that South Africa was part of the West, and that Soviet strategy was to cut Europe off from South Africa's essential raw materials.⁸

South Africa's neighbouring States were important in Botha's security thinking. They were portrayed as South Africa's first line of defence against Soviet expansionism. The South African government concluded security agreements with Portugal and Rhodesia, so that in practice Angola, Mozambique and Rhodesia became South Africa's front line.

Botha's understanding of the conflict between his government and the South African liberation movements was influenced by the findings of the Potgieter Commission of Inquiry in 1970, which concluded that: "it is no secret that the enemies of the Republic are trying to attack in all fields".⁹ The Commission viewed South Africa as being faced by a "total onslaught" from beyond its borders, and recommended the adoption of a "total national strategy".¹⁰ According to the 1975 Defence White Paper, the "total strategy" included "economic, ideological, technological, and even social matters".¹¹

The theory of "total strategy" was originally put forward by French military general, André Beaufre, based on his experiences of World War II and the Indo-China war. Beaufre saw a role for politicians in the development of military strategy. He argued that a war can be won through the effective co-ordination of all elements of the State with a single purpose—to engage the enemy on all fronts: military, economic,

psychological and political. Beaufre's thesis was considered so important in South Africa that it became the basis of lectures on strategy at the Joint Defence College.¹²

The primary objective of "total strategy" was to ensure the survival of a society in which "the principle of the right of self determination of the white nation must not be regarded as being negotiable".¹³ The South African government, its security forces and its electorate (most white South Africans) saw themselves as being at war with whomever opposed this "right", that is, at war with the majority of South Africa's population and most of the world.

In the preface to his 1973 Defence White Paper Botha said:

"The Republic of South Africa is a target for international communism and its cohorts—leftist activists, exaggerated humanism, permissiveness, materialism and related ideologies. In addition, the RSA has been singled out as a special target for the by-products of their ideologies, such as black radicalism, exaggerated individual freedom, one-man-one-vote, and a host of other slogans employed against us on the basis of double standards ... Because the RSA holds a position of strategic importance, these ideological attacks on the RSA are progressively being converted into more tangible action in the form of sanctions, boycotts, isolation, demonstrations and the like. This renders us—and the Free World—the more vulnerable to the indirect strategy applied by the radical powers in the form of undermining activities and limited violence, whether employed openly or dissimulated behind ideological fronts".¹⁴

In September 1978, ten years after being appointed Minister of Defence, P.W. Botha was elected by the whites-only voters as Prime Minister. He soon elaborated the concept of the total onslaught. The 1979 White Paper on Defence recorded "... increased political, economic and military pressure on South Africa" and expressed concern that "... the military threat against the RSA is intensifying at an alarming rate". The idea of a total onslaught against South Africa, as "... Moscow's stepping stone to world conquest", became the departure point for security-related government policy.¹⁵

In 1982 the Steyn Commission Report supported Botha's view that the Soviet Union's aim was world domination, stating that the Soviets' methods

included subversion, disinformation, psychological war, espionage, diplomatic negotiations, military and economic aid programmes, terrorism and guerrilla warfare. The Steyn Commission concluded that the African National Congress, the South West People's Organisation (SWAPO), the South African Communist Party and "other related organisations" were Soviet surrogate forces.¹⁶

The South African Defence Force drew a distinction between terrorists and guerrillas,¹⁷ arguing that the former target civilians and the latter engage unconventionally with military targets. The SADF viewed the liberation movements as terrorist organisations, a view which held that every white South African was a potential target. Fear was instilled in ordinary white South Africans, reinforced by reports of ANC speeches in which members were called upon to arm themselves. Racism and appeals to the whites' fear of Africans became the basis of the total strategy mentality.

An extract from a speech delivered by Gen. Magnus Malan, Minister of Defence in 1981, illustrates the government's view:

"As a point of departure we have to accept that the onslaught here in Southern Africa is communist-inspired, communist planned and communist-supported. ... Stalin said it for the first time in 1923 and Brezhnev subsequently reiterated quite a number of times what communism was striving for, was world domination. The onslaught is aimed at the prevailing State structure i.e. the present South African democratic (sic) way of life as represented and symbolized by Parliament. ... (T)he security of the Republic of South Africa must be maintained by every possible means at our disposal. Therefore the Defence Force must be prepared to guarantee orderly government by maintaining law and order and securing the country's borders... owing to the communist threat and the instability which is increasing in Southern Africa, the Defence Force must also be prepared at all times to ensure the security of the territory of the Republic of South Africa by taking offensive pro-active steps".¹⁸

Whether the Soviet threat was real or imagined, or a convenient rationale for preventing democracy, it certainly influenced military strategy. In considering the rationale for the nuclear programme (which was started in 1974, seven years before Project Coast) and the intended strategy behind it, Reiss asserted that:

“The ostensible security rationale for the nuclear weapons programme was the threat of ‘total onslaught’ confronting the country in the mid-1970s. Yet the former chief of the South African military intelligence during this period, General H. D. E. V. du Toit, discounted this danger: ‘I don’t think we ever thought it was feasible for anyone to attack us from the north’. As for the Soviet threat, he said ‘The Communist bogey was set up at every stage—but we had no one in the military who read, spoke, or studied Russian.’ It was ‘silly to set the Soviets up as the force behind the total onslaught’. The Foreign Ministry also lacked any Soviet expertise. Further, as part of the peculiar ad hoc decision-making process that seemed the norm rather than the exception in the South African government, communication and policy coordination among government departments and ministries were sporadic at best. Until 1985, the military did not even have a policy planning staff”.¹⁹

However “silly” it was to set the Soviets up as the main threat to white minority rule, it worked. The military gathered more power than ever, and in the 1970s and 1980s the whole population of South Africa, black and white, lived in a state of fear.

Botha’s ascent to power was followed by a massive shake-up in the civil service and in the way in which State structures interacted. At the same time, the South African Defence Force underwent structural changes leading to, amongst other things, the scrapping of the position of Defence Secretary in 1973.

Defence Secretary was a civilian, political position which acted as a check on the power and spending of the Defence Force, and through which all acquisition by the military had to be approved. Up to this time the Defence Secretary had the same authority as the Commandant-General (head of the Defence Force). After 1973, the position of Defence Secretary was scrapped and in its place the position of Comptroller-General was created, a military position which fell just below the Chief of the Defence Force. This watershed event signalled the loss of civilian control over the military.²⁰

During the early and mid-1970s most of the World War II veterans who were still serving in the SADF retired. There was a changing of the guard and some people moved up the ranks very rapidly. Constand Viljoen, who was a Colonel in 1975, held the rank of General and Chief of the

Defence Force some five years later. The border war had required a change in tactics, and the old ethos of the Defence Force vanished. There was, in short, a “tradition of no tradition” from the mid-1970s.²¹

In the years preceding 1972/3 it would have been difficult to launch a clandestine project such as Project Coast. The Defence Secretary would have played an important role in curbing the influence of the military in anything other than military operations. After 1973 the responsibility for these projects fell to the Chief of the Defence Force. The Defence Headquarters became a huge, powerful and centralised operation. P.W. Botha personally saw to it that Gen. Magnus Malan was brought back from South West Africa, where he was serving as General Officer Commanding of South West Africa Command to take up the position of Chief of the Army. In 1975 Malan became Chief of the Defence Force.²² According to military analyst Willem Steenkamp, even before becoming Chief of the Defence Force, Malan’s relationship with Botha circumvented the then Chief of the Defence Force, Admiral H.H. Biermann.²³

These personal relationships, which defied rank and authority, played an essential role in clandestine projects such as Project Coast. Former senior military officials interviewed by the authors concur that the military was run by powerful cabals, hidden by the formal, legal military structures. Magnus Malan was central to the establishment of these alternative power structures. His confidantes and supporters included Gen. Jannie Geldenhuys (chief of the SADF during the 1980s) and Gen. A.J. (Kat) Liebenberg, Chief of Special Forces, later to become Chief of the Army and Chief of the SADF.²⁴

Military officers interviewed during this research process have repeatedly testified to the power of these invisible structures,²⁵ confirming that anyone who questioned their ways of operating, or who questioned projects close to the sources of power, were immediately moved to positions where they could not act against the cabals, and often ultimately forced to resign. Gen. Pierre Steyn identified Gen. A.J. (Kat) Liebenberg as a powerful member of the informal structures. It was Liebenberg’s practice to restrict the flow of information, by-pass normal chains of command and ensure that people in positions of power were those who toed the line.²⁶ This modus operandi was similar to that of the secret Afrikaner organisation, the Broederbond, which was a powerful yet invisible force behind security

thinking at the time and played a central role in determining defence policy and strategy.²⁷

In 1992 Gen. Pierre Steyn was instructed by the President, F.W. De Klerk, to investigate the allegations of Third Force²⁸ activities and the increased levels of political violence which accompanied negotiations between the liberation movements and the government. Liebenberg's comment to him was: "Don't scratch where it does not itch".²⁹ Steyn was constantly harassed during the Third Force investigation. His house was broken into, his personal computer stolen, and he was kept under constant surveillance. A car was permanently parked outside his house, watching. When Steyn challenged Liebenberg about the surveillance he was told: "I can watch anyone I want" and Liebenberg commented: "You are messing with the system".³⁰ The cabals were ruthless with people they considered internal enemies or traitors.

The relationship between Botha, Malan and Liebenberg was to become important to the growth of Wouter Basson's personal power. Throughout his tenure as Project Officer of Project Coast, Basson reported to Liebenberg as Chief of Special Forces. The direct reporting continued when Liebenberg was Chief of the Army, and, in the final stages of Project Coast, Chief of the Defence Force. When Malan was Minister of Defence and Liebenberg Chief of Special Forces, it is likely that this special relationship would have circumvented Constand Viljoen, Chief of the Defence Force. Basson, who reported to Liebenberg on operational matters, would, therefore, have had a direct line to the Minister of Defence³¹ and to the State President.

The structural changes in the State machinery took place at a time of rising political pressures inside South Africa and in the region. The fall of the Portuguese government in April 1974 and the consequent rise to power of revolutionary governments in Angola and Mozambique, combined with the struggle for liberation in Rhodesia, "traumatised the apartheid regime in Pretoria".³² In explaining the context in which the nuclear programme was born, Fig argues that the regional changes: "precipitated a renewed rise of social struggle, typified by the events of June 1976 in Soweto, the emergence of the Black Consciousness Movement and a stronger ANC underground... [the] state responded with intensified domestic repression and external aggression. Not only had the front line moved closer, it had taken shape in the dusty streets of South Africa's townships. The decision to

build nuclear weapons [taken in 1974] arose in this atmosphere, during the paranoia about external attack and internal subversion, and as a part of a growing move to create a 'total strategy' against the 'total onslaught' of apartheid's enemies".³³ There was an increased level of internal resistance, after the massacre of school children in Soweto in 1976, the murder of Steve Biko in 1977, and increased levels of conflict in Angola and northern Namibia.

The search for chemical agents which could effectively be used against crowds began as early as 1976. Both former South African Police Forensics chief, Gen. Lothar Neethling, and former Chief of the Defence Force, Gen. Constand Viljoen, have recalled the military's interest in finding agents that would calm a crowd. Neethling explained to the Truth Commission:

"When the riots started in 1976, the South African Police were caught unawares. They had nothing apart from guns, shotguns, and sharp point ammunition. Nobody wanted to use that and that's why there was a surge for various techniques to be applied ... I went overseas three times to Germany, England, Israel, America to find the best techniques available".³⁴

Gen. Viljoen concurred with Neethling, saying that the purpose of the chemical warfare programme was, on the one hand, to provide SADF troops with protection against the use of chemical weapons, and on the other hand to seek alternative forms of crowd control which would prevent the police from having to use live ammunition.³⁵

In an interview with the authors, Gen. Viljoen explained that the killing of school pupils in Soweto in June 1976, after the police had opened fire on a student protest gathering, had resulted in a diplomatic setback for the South African government. The incident focused the attention of the military on the need to develop alternative crowd control agents. A situation such as that of Soweto had to be prevented in the future, not only because it was morally unacceptable, but "because it was bad for internal relations and because of the effect it had on South Africa's international relations".³⁶ Gen. Viljoen said that the focus of the programme was therefore initially on the development of agents to be used inside South Africa for purposes of riot control and on "the development of defensive measures and tactical doctrine in defending and protecting own troops".³⁷

Viljoen's statements introduce a number of unanswered questions. The chemical company, AE&CI (later renamed AECl) had been producing CS teargas for riot control purposes since the early 1960s.³⁸ The police did have stocks of CS available for use and chose instead to use live ammunition to quell the 1976 riots.

Viljoen's assertion, in the press, that the SADF sought a riot control agent which would calm a crowd does not explain Project Coast's focus on CR, a more irritant form of teargas. It was only after the establishment of Project Coast that any attempts were made to find alternatives to the CS gas which was already produced and weaponized by Swartklip Products in South Africa under the code name Project Liomar. When confronted with the evidence that a calming agent was not weaponized, former Chief of the Defence Force (1985-1990), Gen. Jannie Geldenhuys, said that he was surprised to hear that CR was not a calming agent.³⁹

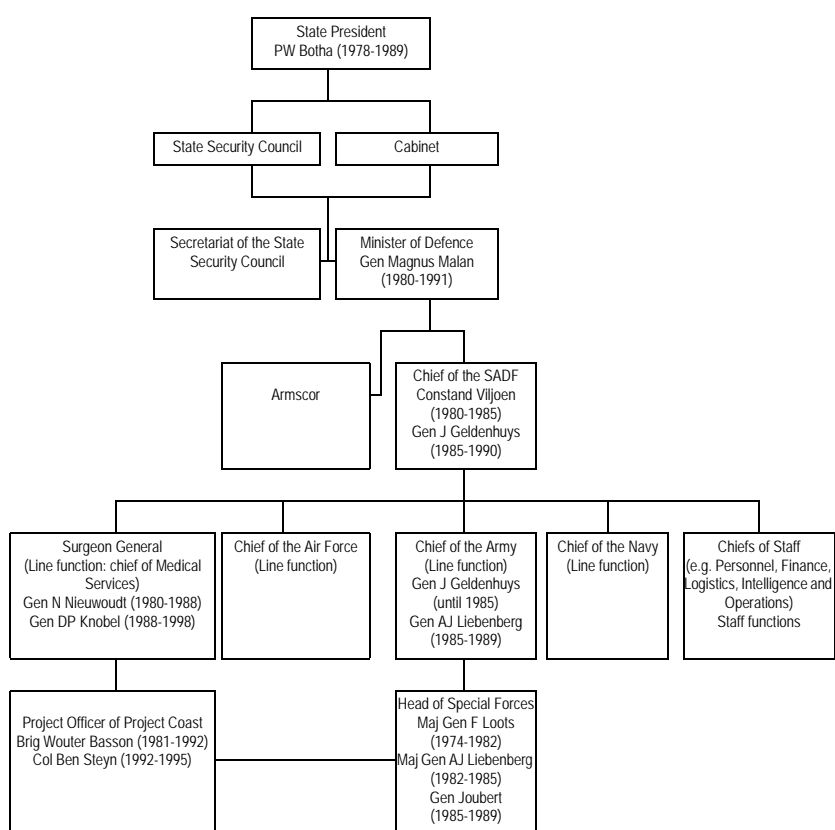
The development of South Africa's arms industry started as early as 1968 with the establishment of the state-owned Armaments Development and Production Corporation (later the Armaments Corporation of South Africa, Armscor). Armscor had been given impetus by the then-Minister of Defence, P.W. Botha. By the time the mandatory arms embargo was imposed in 1977 by the decision of the United Nations Security Council, "the South African arms industry was already either producing, or in the process of acquiring, the knowledge to produce a wide spectrum of armaments".⁴⁰

As argued by Batchelor and Willett: "The growing power and influence of the military, the South African Defence Force's involvement in a number of regional conflicts, which required a guaranteed source of appropriate armaments and military equipment, and the imposition of a mandatory United Nations arms embargo in 1977 prompted the apartheid government to invest considerable national resources in developing a domestic arms industry with across-the-board capabilities".⁴¹

The arms industry developed into one of the most significant sectors of the country's industrial base by the late 1980s. "The country had also become a major developing-country arms producer and was actively engaged in the international arms trade. During its build-up from the mid-1970s onwards the arms industry became a major site for Afrikaner political and economic empowerment".⁴²

The threat perception of the apartheid government, combined with a strong material base and knowledge capable of developing and producing armaments necessary to counter both domestic resistance and external conventional threats, provided the context for both a nuclear and chemical and biological warfare programme. Despite the arms embargo, South Africa developed a strategic nuclear capability, and despite the country's commitment to the BTWC, a chemical and biological warfare programme was established.

South African political and military structures 1980-1989⁴³



THE REGIONAL CONTEXT

The history of colonialism and the resultant conflicts in southern Africa from 1960 to 1990 are complex and has been the subject of much analysis, but there is no dispute that these conflicts played a central role in determining South Africa's military strategy and the development of its unconventional arms programmes. Conflicts in the sub-region, including Angola, Mozambique, Zimbabwe, Namibia and South Africa, were inextricably linked. For much of the 1970s the South African Defence Force was engaged in conflicts on four fronts—in Mozambique, Angola, Namibia (then South West Africa) and Rhodesia—which had a determining effect on the scale and duration of these wars.⁴⁴

The announcement on 18 July 1966 by the International Court of Justice that it could not rule on the disputed territory of South West Africa led to the South West Africa People's Organisation (SWAPO) making its statement of war, the Dar es Salaam Declaration. Although a few battles took place between the South African Defence Force (SADF) soldiers and guerrilla fighters of SWAPO, the period 1970-74 saw the intensification of the political mobilisation of SWAPO members and their allies. In 1972 the SADF was deployed in the northern areas of South West Africa on a large scale.

Two years later, in 1974, the independence of Angola after a coup in Portugal by the Armed Forces Movement changed the face of the war in Namibia. The guerrilla soldiers of the People's Liberation Army of Namibia (PLAN), SWAPO's armed wing, were able to move through Angola more easily to establish a permanent presence in South West Africa.⁴⁵

In January 1979 the South African Police responded by launching a new unit in Ovamboland, called Operasie Koevoet [Operation Crowbar]. The unit adopted the modus operandi of the Rhodesian Selous Scouts. Eugene de Kock, a veteran of the Rhodesian war,⁴⁶ was assigned to the unit. He describes it in his book *A long night's damage*:

“The Rhodesian Selous Scouts were based in essence on Orde Wingate’s Chindits and the American Green Berets: unconventional soldiers, able to move about and subsist as well as their opposition in hostile terrain, and used to pinpoint infiltration, unconventional warfare (poisoning food supplies, for example) and surprise attack. The Mozambican Renamo movement was based on using dissatisfied members of the population and the armed forces against the government of the country. ... Our idea in Ovamboland was to start a local force to fight against SWAPO, like Renamo, while a second group would operate more along the lines of the Selous Scouts.”⁴⁷

Koevoet operated in cooperation with the 5 Reconnaissance Unit of the SADF Special Forces. The unit was disbanded in 1989.

The importance of the South African Defence Force and police involvement in the Rhodesian war of independence should not be underestimated. It proved to be a training ground for South African Police and Defence Force members in counter-insurgency techniques which they would put to use both in South West Africa and in South Africa. South African police units began training with the Rhodesian Light Infantry and Special Air Services from as early as 1968.⁴⁸ Members of the Reconnaissance Unit of Special Forces began working with the Selous Scouts in 1976,⁴⁹ and here they learnt the techniques known as pseudo operations: black operators, and white operators with blackened faces, would masquerade as guerrillas, making it possible for them to get close to guerrilla bases before launching an attack; alternatively, this cover would provide them with opportunities to capture and “turn” members of the “enemy”. When the Rhodesian war ended in 1981 many of the former Rhodesian security force members came to South Africa where they joined the police and Defence Force. Many of the Selous Scouts, both black and white, who joined the SADF, became Special Forces operators, working within clandestine units.

Before 1974 the SADF had operated in Angola with the support of the United States Central Intelligence Agency (CIA) but by 1974 overt assistance had been stopped and South Africa operated alone, although unopposed by the United States. In 1975 South Africa invaded Angola in an attempt to regain its influence, lost through the independence of that country. The conflict in Angola continued in the following years with South Africa arming and organising the National Union for the Total Independence of Angola

(UNITA) in its war against the government of the Popular Movement of the Liberation of Angola (MPLA).

The Angolan war was fought in several conventional battles between the SADF and MPLA between 1980 and 1988.⁵⁰ Allegations were made by both sides that chemical weapons had been used although none of the allegations were ever proved. From 1986 claims were made by Belgian academic Aubin Heyndrickx that chemical weapons had been used by Angolan government forces against UNITA. Heyndrickx, who visited Angola in 1986 and again in 1988, received his briefings from UNITA. His reports, to UNITA leader Jonas Savimbi, relate allegations of poisoning and conclude that chemical weapons were used against UNITA forces and civilians. In a 1988 report Heyndrickx claims that the analysis of blood and urine samples collected from 8 patients on 16 February 1988 indicate that “nerve gases with a high probability (sic) have been used on them”. Heyndrickx also reported that a war gas identification kit given to him by Savimbi, allegedly confiscated from captured Cuban soldiers in Cuito Cuanavale, was of Russian origin. He stated that the kit was the same as those found in Afghanistan on Russian soldiers who were taken prisoner by the Mujahiddin.⁵¹

Heyndrickx’s reports lack substance and his conclusions are based on questionable argument. Nonetheless it is probable that his reports would have been sent to the South African authorities, and that they would have fuelled the belief that there was a threat of the use of chemical weapons in Angola during this period.

The war in Mozambique began shortly after that country won independence from Portugal in 1975. The Mozambican Liberation Front (Frelimo), which had gained political control of the country, aligned itself with the Zimbabwean liberation struggle, providing Zimbabwean guerrillas with refuge. The white Rhodesian government responded by supporting the Mozambican National Resistance, which later became known as Renamo, in its fight against the Frelimo government. When Zimbabwe gained independence in 1980, support for Renamo shifted from the Rhodesian to the South African military. Under the guidance of South African Military Intelligence, Renamo became a fighting force to be reckoned with, resulting in a conflict that, despite peace talks in 1984, continued until a cease-fire was signed between Mozambique and South Africa in October 1992.⁵²

These events all have to be seen in the context of Cold War politics. Between 1970 and 1975 UNITA found support in South Africa and the United States, while the MPLA on the other hand found support in Cuba, the Soviet Union and China. Minter has stated that:

“It was the US government which urged South Africa to send in its troops in 1975, and which sustained UNITA’s guerrilla campaign after South African supplies dwindled following the independence of Namibia in 1990. The presence of Cuban troops in Angola evoked bitter antagonism to Havana in Washington policy-making circles. Angola might not have seen peace even without Washington’s unrelenting hostility and the military involvement of the Soviet Union and Cuba on the other side. But these factors surely had significant effects on the character and duration of the conflict”.⁵³

Washington’s involvement in the conflict in Angola was limited to small-scale covert support, much to the irritation of the South African military. Gen. Constand Viljoen, head of the South African Defence Force in 1980, said that if the international community had provided the South African government with the necessary information and protective gear and masks to protect its troops against the threat of chemical warfare, it would not have been necessary for South Africa to develop its own programme.⁵⁴ He said it was difficult to understand why, after allegations of the use of chemical warfare agents by Cuban troops Washington refused to assist South Africa in protecting its troops against this threat. Washington’s reluctance to assist the South African Defence Force might be explained by the fact that credible proof was never provided for the threat of chemical weapons in Angola. Even if Viljoen’s statement is correct, there is no explanation for the fact that defensive training and protective clothing was only available in the later 1980s and by many accounts protective clothing never reached the fighting troops in Angola.

The Angolan war, with Russian and Cuban soldiers providing support to the Angolan government forces, nevertheless added fuel to the fears of Botha and Malan, who needed to argue that South Africa was under communist threat. The maintenance of the communist threat perception was vital to their continued support at home.

The Rhodesian war of independence in the late 1970s was probably the first time in Africa where poisons were used as weapons of war.

Fragmented information about Rhodesia's use of poison has been published in at least four books⁵⁵ but, senior Rhodesian military personnel have never conceded what the late Ken Flower, Director-General of the Central Intelligence Organisation (CIO), said in a paragraph in his book *Serving Secretly*⁵⁶—that poisons were used with devastating effect.

By mid-1977, the small conventional multiracial Rhodesian security forces were engaged in a war they could not win, a vicious war punctuated by acts of terrorism by all sides. The two organisations committed to liberating Rhodesia from minority white rule, the Zimbabwe African National Union (ZANU), and Zimbabwe African Peoples Union (ZAPU, now the ruling ZANU-PF), both had military wings which operated from Zambia and Mozambique and inside Rhodesia. ZANU's military wing was the Zimbabwe African National Liberation Army (ZANLA), and ZAPU's was the Zimbabwe African People's Revolutionary Army (ZIPRA).

Although both liberation armies were feared by the Rhodesian forces, their greatest effort was put into attacks against ZANLA, as its operations had succeeded in clearing whites out of vast areas of the country along the border with Mozambique. ZANLA, less selective than ZIPRA about its victims, routinely committed acts of terrorism, mainly against black civilians. ZIPRA, on the other hand, with the exception of downing of two civilian aircraft, was engaged in a more conventional war.

Very little has been made public, even after 20 years, about the internal struggles within ZANLA during the war. The film "Flame",⁵⁷ which told of abuses of women in ZANLA camps, caused a sensation when it was shown in Zimbabwe in the mid-1990s and was denounced by the ruling party. No historian has seriously tackled the wartime histories of either of the liberation armies. The self-vaunting Rhodesian accounts of the war tell little of their atrocities. Over the June 2000 general election, as Robert Mugabe's use of "war veterans" came to the fore, the public had rare glimpses, through letters to the newspapers, of ZANLA's wartime atrocities against some of its own members.

From 1976 all normal mechanisms of justice were abandoned by the Rhodesian government. Special courts were gazetted which allowed captured guerrillas to be tried in situ, without referral to district courts or the Supreme Court. Defence for guerrillas was often provided by the Rhodesian security forces from legally trained conscripts. Some executions were

carried out in situ, and no records were available of who was tried or when executions were carried out. A diesel-powered crematorium was uncovered in the late 1980s in the bush near the maximum-security prison at Chikurubi (near Harare) which had the capacity to incinerate four or five bodies at a time.

By the late 1970s the Rhodesian security forces were involved in unconventional warfare and a number of devices were released into the civilian community, for example, booby-trapped radios. An armourer, Phil Morgan, who was later to work for Project Coast, was involved in the manufacture of these devices.⁵⁸

Rhodesia's amateurish and short sojourn into chemical and biological warfare made use of three substances:

- Organophosphates, put onto clothes, especially onto parts of the fabric which would touch the soft parts of skin, under the arms and the groin areas. Organophosphates were also put into tinned food and drink or other substances to be ingested, such as aspirin;
- Cholera, twice released into the Ruwenya River;
- Anthrax, deposited near Plumtree, inside the Botswana border.⁵⁹

Documents made available to the authors by author Peter Stiff, record the use of poisons by the Rhodesian Police's Special Branch and the Selous Scouts. These documents indicate that the use of poisons began in 1977. Former Special Branch operatives have said they were aware of the use of poisons as early as 1973.⁶⁰

One of the official documents, dated 24 June 1977, records 809 deaths resulting from poisoned items distributed by the Selous Scouts. Another document lists poisoned items showing where they were distributed, including 12 sets of clothing at Gwelo, 15 at Enkeldoorn, 34 at Mount Darwin as well as poisoned mielie (corn) meal, tins of corned beef and sweets. A document dated August 1977 records that between August 8 and August 17 of that year, 59 sets of poisoned clothing, 2 sets of poisoned cigarettes, 1 set of medical supplies and 2 sets of "assorted food and drink" resulted in 3 direct deaths and 19 deaths of civilians killed by guerrillas who believed they had been responsible for the poisonings. The last report for November 1977 records that 79 "terrorists" were killed after more contaminated food and clothing had been distributed.⁶¹

M.J. McGuinness, the man who facilitated the chemical programme at the Bindura Fort, as it was called, and the most senior Special Branch Officer seconded to the Central Intelligence Organisation and afforded the title Officer Commanding Counter Terrorist Operations said that about a dozen times during 1977, 25-gallon drums of foul smelling liquid were delivered to the officer in charge at the Fort.⁶² The chemicals were poured onto large sheets of tin and dried in the sun. When the liquid had dried, the resulting flakes were scooped up and pounded in a mortar with a pestle. That powder was then brushed onto clothes and also mixed into processed meat such as bully beef, and then re-packed into new tins. The poison was injected, using a micro needle, into bottles, most of them containing alcoholic drinks. McGuinness insisted that “every contaminated item that left the Bindura Fort, the only location at which they were being manufactured, must be signed for and subsequently accounted for by the recipient”.⁶³

According to McGuinness, the poisoned items were distributed by Uniform Branch members who were co-opted by the Provincial Special Branch Officers for what was known as “Ground Coverage”, which involved gleaning low-level intelligence and running sources in the rural areas. Each police officer involved in the distribution required the authority of his immediate officer commanding before being issued with the contaminated items.⁶⁴

There was no way McGuinness, could verify the kill claims, and in some instances he believed that one of the Special Branch men was falsifying deaths. Some of the bottles of alcohol were distributed by the Selous Scouts. In one case, near Rusape in Manicaland province, several guerrillas died after a furious fight among them following consumption of a bottle of liquor poisoned with pure alcohol. McGuinness told the authors that “the distribution of contaminated items, e.g. clothing and food, was not as a general rule carried out by the Scouts but by the Projects Section of the British South Africa Police, Special Branch. Scouts in the field acted in a reconnaissance role, calling in strike forces to engage the enemy where this was feasible and only as a last resort compromising their true identity in any given area”.⁶⁵

According to McGuinness, two unsuccessful attempts to infect the Ruwenya River in north-eastern Zimbabwe with cholera were carried out by members of the Selous Scouts.⁶⁶ If the Selous Scouts were given cholera

to put in a river to infect guerrillas, they were misinformed about the nature of cholera, which cannot survive in a running river.

McGuinness recalls that he was surprised to learn from conversations with his colleagues that on one occasion anthrax had been deployed. He said the Selous Scouts had been asked to deposit the organism, but their officer in charge, Lt.-Col. Ron Reid Daly, had refused because he believed this operation was too dangerous for his men. It was left to the Special Air Service to drop the anthrax from an aircraft.⁶⁷ The question of whether the anthrax outbreak in Zimbabwe between 1979 and 1980 was a natural occurrence or a deliberate act of biological warfare has been raised by, amongst others, Meryl Nass, who analysed the nature of the outbreak and concluded that a detailed investigation was necessary to reach a conclusion.⁶⁸ The information provided by McGuinness confirms the need for a thorough investigation into the matter.

Dr Stuart Hargreaves, head of veterinary services in both Rhodesia and post-independent Zimbabwe, ascribed the increase in anthrax cases to a breakdown of fences during the war and the halting of vaccination programmes. Journalist David Martin⁶⁹ points out that there were no outbreaks of anthrax in the white commercial farming areas during the later stages of the war. In those areas the fences were still in place and farmers paid for their animals to be vaccinated. Anthrax is only endemic to Matabeleland, where Plumtree is situated.

In late 1977, when Commissioner of Police Peter Allum was told by a Medical Officer of Health (probably from the Manicaland Province) that there were indications that there were mysterious deaths of black people, he suspected chemical poisoning.⁷⁰ He immediately put out an order that it be stopped. Allum was known to have tried hard to limit Rhodesian security force atrocities on the civilian population. His role in stopping the chemical warfare project is confirmed by himself and by several key sources. He had not heard of any attempt to introduce cholera during the war and was astonished to learn that anthrax had also been used.

The line of command in the poison operations is not clear. Lt.-Col. Reid Daly surmised that Central Intelligence Organisation Director, Gen. Ken Flower was in charge of the operation.⁷¹ Reid Daly confirmed he knew some of what had been going on. He said it was unlikely that the chemical project was discussed at the National Joint Operational Command.

Lt.-Gen. Peter Walls, chief of Combined Operations, said he had no idea that either chemical or biological warfare agents had been used in 1977.⁷² Walls said he could not recall any of what Thornycroft told him about the project, but said he was worried that he may no longer have full control of his memory. He was certain that Combined Operations (which comprised all the security forces) would have known about the project.

According to Stiff, Prof. Robert Symington was the scientist behind the poisonings. Symington was employed in the Anatomy Department in the University of Rhodesia. In a book published in 1985, Stiff records a conversation in which Symington (who he calls Sam Roberts) offers an operator thallium with which to kill a man: "It was said there were some months when Sam Roberts had killed more terrorists than the Rhodesian Light Infantry. In April 1978 a group of 17 ZANLA terrorist guerrillas, who had been on operations... staggered across the Mozambique border to the safety of their protected rear bases. They were vomiting, defecating and writhing with pain. Transported to Beira where they were hospitalized, they died mysteriously, one by one, over a period of three days". The operator asked how this had happened and Symington replied: "Special Branch knew where they were based. We doctored some sacks of mielie (corn) meal with thallium and deposited them in a farm store they were going to raid for food. They did, naturally burning it down afterwards, as is their practice".⁷³ Symington later moved to South Africa where he worked as a lecturer at the University of Cape Town. He died some years ago. His laboratory assistant, Victor Noble, who worked at the University of Pietermaritzberg until his retirement, declined to speak to the authors and it is not known whether he knew about the poisons Symington provided to the operators.

In a paper titled "The use of poison and biological weapons in the Rhodesian War"⁷⁴ Martin tells how many guerrillas died of poisoning, particularly in neighbouring Mozambique. He recalls that an American doctor, Dr Paul Epstein, working in Mozambique in 1978, sent a sample of fat from one of the victims for analysis by the World Health Organisation to a laboratory in South Africa. Warfarin, a rat poison was found in the fat sample. Warfarin causes internal haemorrhaging, symptoms apparently displayed by victims treated by Dr Epstein at Beira Hospital.

There is documentary evidence that Rhodesian security forces used poisons to contaminate food and clothing which was distributed carelessly

among civilians. If the documents recording the items poisoned and the number of deaths that resulted are correct, then at least 900 people died from ingesting poisoned food or wearing contaminated clothing. It is likely that the Rhodesian soldiers and policemen who came to South Africa after the war brought with them tales of the use of poisons which may have influenced the thinking of South African military. The authors have found no link between the South African programme and the Rhodesian use of poisons, except for a single line in a 1977 report of the Officer in Charge of Operations to the Special Branch commanding officer which states: "It will be noted that there is a considerable decrease in the quantity of materials directed into the field during the fortnight under review, this being due to (a) staff shortages in the field and subsequent inability to recruit contact men and (b) the shortage of necessary ingredients which are to be obtained from South Africa within the next two weeks".⁷⁵

CHEMICAL WEAPONS IN SOUTH AFRICA PRIOR TO PROJECT COAST

Project Coast, initiated in 1981, was not South Africa's first experience of chemical warfare agent production. The country's involvement dates back to World War II when the Smuts government agreed to assist Britain in the manufacture of mustard gas.

According to a report, now unclassified, authored by Lt.-Col. D.J.C. Wiseman in 1951, chemical warfare production in South Africa was carried out at two factories, one of which was "sent out from the United Kingdom". Wiseman noted that, while the two facilities were established with the purpose of producing mustard gas, "some phosphine capacity also existed". Wiseman said the intention was that the South African factories would produce a limited number of weapons so that: "had gas warfare started, and, particularly had we [the United Kingdom] been involved in a gas war simultaneously with both Germany and Japan, South African's potential would have been a valuable reserve for supply to the Mediterranean or the Eastern and Australian theatres".⁷⁶

The Head of the Council for Scientific and Industrial Research's (CSIR) Applied Chemistry Unit in the 1970s, Dr J.P. De Villiers, noted⁷⁷ that the one factory was located at Chloorkop near Johannesburg and the second was in Firgrove in the Cape. According to Wiseman: "The question of closing the mustard gas plants in South Africa had been considered in the summer of 1944, but it had been decided that 'trickle' production should be maintained until the close of the war in Europe as an alternative supply for the Far East and Australia in the event of the initiation of gas war in North West Europe. By the end of January, 1945, however, all available empty weapons and storage facilities in South Africa had been filled and it was agreed that production should cease and the plant be put to care and maintenance". In July 1945 these plants were closed down.⁷⁸

There is no evidence to suggest that South Africa was involved in the production of chemical warfare agents between 1941 and 1960. However, in 1960, a company named Mechem was established as the Chemical Defence Unit of the Centre of Scientific and Industrial Research under the Department of Trade and Industry. Mechem was contracted by the SADF to investigate chemical compounds and to monitor the chemical and biological warfare threat against the country. Dr Vernon Joynt, then a researcher at Mechem, claims that the CSIR policy of not working with lethal agents restricted their work to compounds such as teargas. They did, however, monitor literature on lethal agents.⁷⁹

The head of Mechem, Dr J.P. De Villiers, understood Mechem's brief to include at least a degree of chemical warfare research. In a speech he gave in May 1977 De Villiers introduced himself saying:

"I have now been associated with Defence work since 1962 and as I was originally an Organic Chemist, it is obvious that my brief includes Chemical Warfare. ... at the CSIR there are two internal organisations devoted entirely to Defence Research and Development; the very large National Institute for Defence Research and the very small Chemical Defence Unit. I represent the latter. Incidentally, our major tasks are specialised mechanical engineering, and are only remotely chemical".⁸⁰

While De Villiers made it clear that no large scale production work was undertaken by the CSIR, this document, and others written by him, indicate that there was an interest in chemical warfare at the time, and that the role of his unit was to keep a watching brief over chemical warfare issues. De Villiers mentioned on more than one occasion that while he doubted that South Africa was under threat of chemical warfare, chemical weapons could be useful to the SADF.⁸¹ In 1977 he wrote that: "The treatment of terrorist bases with a non-persistent, non-lethal agent just before a security force attack can affect both the terrorists' ability to defend themselves and their ability to escape".⁸² This shows at least an interest in the possible uses of chemical warfare agents in the South African context.

The SADF's interest in chemical warfare was such that in 1971, the Chief of Staff Defence commissioned De Villiers and others to prepare a paper on the subject. De Villiers and his co-authors wrote:

“... the remaining family of lethal agents... are the fluoroacetates. Their use as gas warfare agents is not more likely than any other agent, but their chemical and physiological properties: extreme stability, lack of odour or taste, and delayed symptoms—give them a potential terrorist use for poisoning water supplies of undetermined but possibly great importance. Some fluoroacetates are the ideal poison for water supplies and in some areas of South West Africa, North Western Cape and Botswana they could be used by terrorists and saboteurs. The fluoroacetates are easily made and are commercially available—but not in South Africa—as rodenticides and systemic insecticides. Research was being done on the early fifties at Porton Down in Britain on their use for poisoning water supplies”.⁸³

A document titled *Current Anti-riot Chemicals*,⁸⁴ written by De Villiers in September 1976, states that CS was used in South Africa for anti-riot purposes and that it was available in pyrotechnic smoke munitions, grenades and cartridges, and that equipment had been developed for dispersing it in powder form from aircraft. The document states that there were four chemicals which could be considered for use as anti-riot agents: Chloracetophenone, Phenacyl chloride (CN), O-Chlorobenzylidene malononitrile (CS), Diphenylamine chlorasine (Adamsite or DM) and Dibenzoxazepine (CR). These are all standard anti-riot agents but none of them have a calming effect on crowds.

In 1973 the United States Subcommittee on Africa of the Committee of Foreign Affairs in the House of Representatives heard testimony in relation to the Implementation of the United States Arms Embargo against Portugal and South Africa. Testimony was given about the sale of herbicides and aircraft to South Africa and Portugal in the light of a newspaper report in the British *Sunday Times* the previous year. In this report details were given of an operation undertaken by South African mercenaries and the Portuguese Air Force to spray defoliants over rebel-held areas in Mozambique.⁸⁵ It would appear that the use of defoliants was restricted to this incident and the single use of a commercial herbicide, Hyvar X, in the Caprivi Strip where the SADF believed guerrillas used the shelter of the thick plant growth to hide weapons-smuggling activities.⁸⁶

In 1976 the Chemical Defence Unit (CDU) had in stock some 150 kilograms of CN and 1.5 kilograms of DM. CS was manufactured at the time

by AECI for the Armament Corp, and CR had been manufactured in a very small quantity by the Chemical Defence Unit.⁸⁷

While the CSIR monitored developments in chemical warfare and commented from time to time on the status of the threat against South Africa, there is no indication that between the years 1961 and 1980 the State found it necessary to develop any agents on a large scale nor to develop defence against the use of chemical warfare. There is no record of alleged use of chemical agents apart from the reported use of herbicides in Mozambique and the use of CS against internal political opponents. According to Gen. (ret.) R. Badenhorst, former Chief of Staff Intelligence in the SADF, there was a Nuclear, Biological, Chemical (NBC) Defence Force school in Cape Town from 1961 but training there was restricted to the use of teargas and gas masks, at least until the late 1980s.⁸⁸ In mid-1977 De Villiers authored a chapter in the SADF's *Manual for the SADF Command System, Vol I: National Security and Total War*⁸⁹ in which he set out the various categories of chemical warfare agents and made a brief analysis of the Geneva Protocol of 1925. He concluded that whilst there was no threat of chemical warfare agents being used against South African troops, the use of both lethal and irritating agents may be to the SADF's advantage in certain circumstances when fighting its war against "terrorists". He pointed out that the Geneva Protocol did not forbid the use of such agents within a country and therefore South Africa would not be in violation of the Protocol if it used chemical agents in an internal war. With regard to biological warfare, De Villiers stated categorically that biological warfare was not a threat to South Africa and that no specific training in biological warfare was necessary.⁹⁰

It is significant that three years before the initiation of Project Coast, De Villiers concluded that there was no threat of chemical weapons being used against South African soldiers, even though he recognised the usefulness of these weapons for the Defence Force. Similarly, he saw a limited clandestine use for biological weapons but did not consider them a threat.

Between 1978 and 1981 the war in Angola escalated, starting with a series of co-ordinated attacks on SWAPO bases in Cassinga, southern Angola.⁹¹ This might explain the change in the threat analysis between 1977, when De Villiers wrote a chapter for the SADF manual, and 1981, when Project Coast began. A more cynical analysis may be that the escalation of the war in Angola merely provided an excuse, that the

increasing internal pressure was a more important factor in the decision to initiate the programme than any conventional, external threat.

The CSIR's Chemical Defence Unit was an ideal recruiting ground for the Defence Force when the need for specialised services was identified. In the early 1970s Dr Jan Coetzee, head of the Chemical Defence Unit's Department of Special Equipment, was personally recruited by the head of the SADF, Gen. Magnus Malan,⁹² to head the Defence Research Institute. Coetzee was instructed to develop special counter-intelligence equipment for the Special Operations Group of the SADF, the forerunner of Special Forces. After being recruited by Malan, his job remained much the same, except that he now worked from Armscor premises and from the Armscor budget.⁹³

Eventually problems with procurement of materials and equipment led P.W. Botha to personally authorise the establishment of a new Armscor subsidiary headed by Coetzee to represent the four components envisaged: Electronic, Mechanical, Agricultural (landbou in Afrikaans) and Chemical (EMLC). According to Coetzee, EMLC never engaged in chemical synthesis or extraction, and his staff did not include scientists capable of advanced chemical work. Coetzee said that no production envisaged by the agricultural component of EMLC took place. EMLC had a staff of two botanists and access to anthropologists and ethnologists who were responsible for identifying edible and poisonous plants during Special Forces survival courses. In August 1980 the company moved to the Special Forces headquarters, Speskop.⁹⁴

Coetzee was replaced by Sybrand Van der Spuy as head of the unit in November 1981. (Much later Van der Spuy was to act as the Chief Executive Officer of the chemical warfare facility, Delta G Scientific, during the process of its privatisation). While inspecting the premises before he was to take control, Van der Spuy came across a room which contained bulk chemicals and a carton of what appeared to be clothing. He said that as he moved across the room to inspect the clothing, one of his new employees warned him not to touch it. Asked why not, the employee told Van der Spuy: "Because those clothes are poisoned and if you put those underpants on, you'll be dead by tonight".⁹⁵ Van der Spuy claims that he had the contents of the room destroyed immediately and could shed no light on the origin of the items. Coetzee could not explain their existence either. This raises the possibility that either the chemical division of EMLC was

responsible for the contamination of the clothing or the clothing came to South Africa with members of the Rhodesian Selous Scouts who joined SADF.

EMLC employed a number of former Rhodesian security force members including an armourer Philip Morgan. Morgan later went on to do work for the Civil Co-operation Bureau, manufacturing specialised items such as rings with compartments to hold poisons and screwdrivers which could inject liquids into a victim.⁹⁶

None of the SADF documents available to the authors provides a clear and explicit threat analysis at the time of the initiation of Project Coast. Certain of the documents provide a retrospective explanation of the conditions which led to the decision of the SADF to develop a chemical and biological warfare programme. Most of the documents dealing with the threat and consequent programme are authored by Basson. They tend to focus on the international trends in chemical warfare and on broad statements about the Angolan threat. Little detail is provided about the internal political situation, although it was a time of extreme state violence and growing resistance.

The motivation for establishing Project Coast can be traced to a briefing that Wouter Basson gave to a meeting of the Reduced Defence Command Council, which included the Chief of the Defence Force and other top ranking officers. Basson claimed that during the 1960s and 1970s South Africa had been dependent on the United States and the United Kingdom and "various NATO committees"⁹⁷ for its approach to chemical defence. No evidence has been found to support this claim. Basson also claimed that:

"During the 1960s and 1970s, the balance of power between the US and UK combined with strict control over chemical weapons meant that it was unnecessary for South Africa to do research or develop training with regard to chemical warfare because it faced no direct threat from the Soviet Union".⁹⁸

"The international situation with regard to chemical warfare changed during the late 1970s and early 1980s as a result of technological developments in the chemical industry which led to the production of chemical warfare agents by European companies".⁹⁹

“The increased availability of chemical warfare agents led to Iraq, Iran, Egypt, Syria, North Korea, Cuba and Libya acquiring the ability to produce chemical weapons which upset the power balance of the earlier years”.¹⁰⁰

Based on these factors, Basson concluded that: “The threat now lay in the existence of a large number of potentially undisciplined distributors of chemical weapons, who would make them available to anyone with money or the correct ideology—potential chemical chaos”.¹⁰¹ He added that the United States and the Soviet Union had shifted their emphasis from lethal agents to non-lethal agents in the late 1970s and early 1980s because the use of lethal agents on the battlefield and resultant loss of life would be “unacceptable”, given the increased consciousness of social responsibility in the West in these years.¹⁰² This statement is not correct,¹⁰³ in fact it was precisely at that time that the United States Department of Defence (DOD) was seeking approval from Congress to lift the moratorium on up-grading its stockpile of lethal chemical weapons. According to an article in the journal *Science* published in 1979: “[The] DOD wants to build a plant for arming 155 millimetre artillery shells with binary nerve gas projectiles”.¹⁰⁴ By 1982 the Pentagon was seeking chemical firms in the United States to manufacture the intermediates for nerve gas.¹⁰⁵

Basson, nevertheless, argued that the implication of the trends he had identified for the South African Defence Force was that the increased availability of chemical warfare agents, and the international tendency towards the development of non-lethal agents would lead to CW being an integral part of conventional warfare. As far as he was concerned, an appropriate response would have been to develop effective protective clothing and training for troops and to include non-lethal chemical weapons in the Defence Force’s arsenal.

In the same meeting Basson explained that the SADF operational philosophy included the “right to reactively use non-lethal chemical weapons” and “the integration of chemical warfare related actions in all conventional actions”. Indeed the philosophy of the SADF, included also the “acceptance of the use of chemical weapons on a pro-active basis to ensure the survival of the state, for example in the prevention of the massive violence in the current revolutionary situation”.¹⁰⁶ So while pointing to external factors forcing the initiation of a programme, this statement is an admission that the need for a CW programme was directly related to the

need to suppress opposition to apartheid. Basson however also referred to the conventional battleground threat and having established in the minds of the generals that the Cuban soldiers had access to chemical weapons, he implied that these weapons could be used at any time in the Angolan war.

In 1993 the Minister of Defence, Eugene Louw, was briefed on the background to the 1981 initiation of Project Coast. This briefing was more specific about the threat in Angola. The Surgeon-General, Gen. Knobel, informed the Minister that in the late 1970s and early 1980s there was a concern that CW agents could be used in the Angolan war, and that the build-up of Russian and Cuban forces in Angola, with access to chemical weapons, presented a threat to South Africa. He argued that these forces could attack South Africa by moving through Namibia, and that if they were to use chemical weapons, South Africa would not have been able to defend itself.¹⁰⁷

More recently, Gen. Knobel told the Pretoria High Court¹⁰⁸ that during the height of the Angolan war between 1975 and 1980, South African troops confiscated vehicles from Cuban soldiers deployed there. These vehicles were taken to a South African military base in Namibia and were found to be fitted with air filters. Gen. Knobel told the court that he had personally inspected the confiscated medical bags and found them to contain nerve gas antidotes and gas masks. This, Knobel claimed, led the SADF to believe that there was an intention by the Cuban troops to make use of chemical agents.¹⁰⁹ The South African military may or may not have known that the Soviet standard vehicle units, including armoured personnel carriers, would routinely have been fitted with these features. Helmoed Heitman, a soldier in the SADF during Operation Protea in Angola in the early 1980s, told the authors that he was present when a vehicle was captured from Cuban troops which was believed to have been a decontamination truck. Heitman claims it was this truck which caused consternation in SADF ranks and convinced the SADF that there was a real threat of chemical warfare being used during the conflict. On closer examination of the truck Heitman said he realized that it was an embalming vehicle. It appears that this was not conveyed to senior military officers.¹¹⁰

SADF briefing documents state that by 1990 the MPLA was using chemical weapons against UNITA troops, causing havoc in the UNITA camps. Soldiers were afraid of any battleground smoke and were demoralised.¹¹¹ However, many SADF witnesses for the prosecution in the

Basson trial stated that they had no knowledge of any incidents of chemical attacks during the Angolan war despite having spent years at the front.

The alleged chemical attacks against UNITA soldiers were never proven. It is possible that the reaction of UNITA soldiers was the result of the claims made by Prof. Aubin Heyndrickx that chemical weapons had been used from 1986-1992 in Angola. It is clear that the SADF accepted Heyndrickx's findings, since official documentation cites the discovery of shrapnel (by Heyndrickx) in 1986 in Angola which tested positive for a CW agent (Adamsite) as evidence of a chemical warfare threat on the South African border.¹¹² Dr Johan Koekemoer, an organic chemist at the chemical warfare facility, Delta G Scientific, was responsible for analysing the shrapnel and allegedly did find traces of the incapacitant.

In October 1990, when Basson spelled out the SADF's philosophy on chemical warfare to the generals, he also claimed that modified weapons had been used against UNITA soldiers in Angola:

"Developments in the field of applied toxicology have been successfully incorporated by the USSR in conventional ammunition. Through changes in the composition and proportions of the components of conventional smoke screen ammunition and light giving flares, this ammunition is changed into deadly chemical weapons. This ammunition can practically be used at will, seeing that it would be very difficult to control it through the Conventions. This ammunition can even be explained away as factory faults. In two types of this ammunition that has been used against UNITA, it was found that the normal content of the projectiles had been adapted. In the one type, Strontium metal (which is normally found in small amounts in weapons) was found in concentrations of up to 50 times the normal concentration. A certain nylon type was used for bonding. The burning of the impure 'nylon' causes saltpetre and cyanide to be released in the smoke".

"The second type of projectile which to our knowledge has been used against UNITA makes use of a similar mechanism. In this case the normal metals of the light giving flares are bound by a 'PVC' which uses an abnormally high percentage of tricresolphosphate as a softener (up to 5-10 kg tricresolphosphate per bomb). Ignition of this flare releases tricresolphosphate as well as a very poisonous gas, phosphine, along with metal phosphides which can poison soil (and water) for a long time. It is

this last mentioned bombs with their peri peri smell which causes the paralysis that we have seen in hundreds of UNITA soldiers".¹¹³

This statement too appears to rely heavily on the reports generated by Heyndrickx and was intended to highlight the threat of chemical warfare agents being used against South African and UNITA soldiers. Heyndrickx adopted a definition of chemical weapon which is much broader than the conventional definition. As far as he was concerned, any artillery that released any chemical agent during detonation was a chemical weapon.

If the South African Defence Force had a justifiable concern about the use of chemical agents in the conflict in Angola, it would have been expected that the focus would have been on the purchase and manufacture of protective clothing for soldiers and on the training of fighting troops. But this did not happen. The focus on the development and manufacture of protective clothing, training of troops, and physiological research, only began to take place in the programme after 1986.¹¹⁴ According to Dr Brian Davey, the scientist responsible for developing training programmes and the defensive CBW philosophy for the SADF, training of troops on defensive responses to chemical weapons only began in 1988.¹¹⁵ Willem Steenkamp, a former citizen force member and defence analyst, told the authors he was called up in the late 1980s to a Defence Force training camp where lectures were given on chemical weapons and nuclear fall-out. At the lectures those in attendance tried on NBC suits. They found that after five minutes in the suits, in the African summer, they would collapse from heat exhaustion. After the course Steenkamp was told by a highly placed source that the lecture was a propaganda exercise, with the intention that news of the course would spread and if the war in Angola accelerated there would be an impression that the SADF was well prepared.¹¹⁶

Certainly the SADF response to the alleged conventional threat seems to indicate that they did not take the threat very seriously. A national serviceman who worked with Brian Davey, Danie Du Toit, has stated that chemical protection courses were only offered to select groups, not the SADF in general. Du Toit was in Angola in 1987 as a member of the SADF's 7 Medical Battalion during Operation Modular. He stated that there were no NBC suits available for troops in the field. They were briefed that in the event of a suspected chemical attack, they were to "dig foxholes, crawl in and cover themselves with their standard-issue ponchos". Du Toit acknowledges that this was by no means the ideal solution, "but it was all

we had". According to Du Toit, even the 7 Medical Battalion Specialist Group had only between 10 and 20 NBC suits available.¹¹⁷

The internal threat was far more definable for the SADF. There was no doubt that the South African government considered itself in a state of war against its own citizens from the late 1970s until the early 1990s. Basson's assertion that chemical weapons would be an appropriate way of fighting this war would have had credence.

**Projects and operations associated
with the chemical and biological warfare programme**

Name of Project/Operation	Purpose	Dates
Project Coast	Chemical and biological warfare programme	1981-1992
Project Jota (the code-name Coast was changed to Jota for security reasons in 1992)	Chemical and biological warfare programme	1992-1995
Operation Spyker	Military Intelligence operation to supply UNITA with ammunition from Armscor factories or from SADF ammunition depots	Unknown
Project Muly/Keyboard/Koma/Kea	SADF and Armscor project to develop a limited offensive CW capacity for the SADF. The Surgeon-General decided on CR as the fill substance for ammunition. ¹¹⁸ The names of the project changed successively as indicated.	1985-1993/94 (Project Keyboard was officially closed down on instruction during 1993/4) ¹¹⁹

Operations Hooper, Packer and Modular	An SADF operation Angola. The SADF was responding to a call for help from UNITA leader, Jonas Savimbi who was under attack from FPLA forces. The name of the operation changed when the SADF forces changed. ¹²⁰	June 1987- April 1988
Project Academic	Project Academic was an SADF/Armcor procurement project which involved the procurement of CBW defensive capabilities for the SADF. Academic was started as a project study in 1986/7 and during operations Modular, Hooper and Packer shifted to an extraordinary acquisition phase due to the perceived CW threat. ¹²¹	
Project Galvanise	A broad Armcor research and development project which included a sub-project to research and develop chemical and biological warfare defensive equipment. ¹²²	
Project Fargo	When the chemical and biological warfare defence research and development sub-project of Project Galvanise grew and expanded it was made a separate project with the name Fargo. Protechnik Laboratories was the primary contractor to Armcor in this regard. ¹²³	

In early 1981 the Minister of Defence, Gen. Constand Viljoen, met with the Chief of the SADF and members of the Defence Command Council to discuss the threat of chemical weapons being used by Cuban forces in Angola. Viljoen was convinced that there was a real threat. On the basis of the briefing, he instructed the SADF to find a solution to the problem. A young military doctor, Wouter Basson, was ordered to travel abroad to collect covertly information about the chemical and biological warfare programmes of the West and to use these models as the basis for developing a blueprint for a South African programme. Basson was also instructed to make contact with organisations which might provide information about the CBW capabilities of Eastern bloc countries.¹²⁴

Wouter Basson had joined the SADF in January 1979, as a Medical Officer, the year after P.W. Botha became Prime Minister. He held the rank of Lieutenant, and worked at 1 Military Hospital until February 1981. During this time he completed various courses and became a specialist in internal medicine with a military rank of substantive Commander.¹²⁵ He must have caught his commanders' eye, because from March 1981 he served as a specialist advisor at Defence Headquarters and as Project Officer for the Special Projects of the Surgeon-General. He was under the operational command of the Commanding Officer Special Forces of the Defence Force at the time he was appointed Project Officer of Project Coast.

Basson's rise was meteoric. In January 1985 he obtained the rank of Colonel and became head of a new division, the 7th Medical Battalion, which provided medical support to Special Forces, the Parachute Division, the South African Police and the National Intelligence Service. In this capacity he underwent various courses and became a Brigadier in 1988 at the same time as becoming the head of Medical Staff Operations.¹²⁶ He remained in this position for nine months until the Surgeon-General, Gen. Knobel, appointed him Head of Research and Development in the South African Medical Services (SAMS). At the same time as becoming head of Medical Staff Operations and Head of Research and Development in SAMS, Basson was head of Project Coast. It is unlikely that he would have been able to perform all these functions simultaneously, which raises the possibility that some of these positions were held in name only.

Gen. Knobel summed up the position of Basson in Project Coast in the following excerpt from his testimony to the TRC:

“... here is a man who became a brigadier at a very young age just before I became Surgeon-General. He obviously had the trust of the entire Defence Force and of the Cabinet because that type of appointment is approved at that kind of level. He had the total support of my predecessor. The system that was created to run this project and the way that he had operated was then running already for 8 years when I took over. It is quite impossible to then begin to question the way that he carries out his dealings. His word was accepted. I say that and it is true”.¹²⁷

Gen. Knobel told the TRC that: “Clearly the person you wanted to be the ideal Project Officer would have to be a person with detailed knowledge of chemistry and certainly would have to be also partly a person with a higher degree in medicine. These qualities (sic) is what Dr Basson had and I take it that that was exactly why he was chosen”.¹²⁸

In August 1981 funds were allocated by the Chief of the SADF, Gen. Constand Viljoen, to complete a feasibility study for the establishment of a CBW programme in South Africa. Towards the end of that year the Minister of Defence officially approved the establishment of Project Coast and funds were made available for the purpose.¹²⁹

According to a retrospective report by Knobel and Basson, it was initially envisaged that the parastatal arms manufacturer, Armscor, would assist the SADF in developing the CBW programme.¹³⁰ In a meeting with the Surgeon-General at the time, Gen. N.J. Nieuwoudt, Armscor officials apparently said that it would be too sensitive a task for them. It was therefore decided that the SADF would be solely responsible for the project. Knobel reported in his briefing to the Minister of Defence that Nieuwoudt and Basson met with Piet Marais and Fred Bell of Armscor, who said they would not be in a position to recruit or maintain the scientists necessary for the programme and they had too much work already.¹³¹ This was an incongruous position, since Armscor was responsible for procurement for the nuclear programme. A senior Armscor official told the authors that it was more likely that Armscor’s decision not to host the CBW programme related to issues of power and control: Armscor would not have taken on the responsibility of a programme over which it did not have full control and for which it would not get full credit. It is equally unlikely that Basson and Nieuwoudt would have wanted to hand over a project which

they had invented, and for which they could gain the favour of the Minister of Defence and State President.

In 1981 the Minister of Defence approved the establishment of Project Coast under the sole auspices of the SADF and, at the same time, approved the establishment of its management committee. This committee, known as the Co-ordinating Management Committee (CMC), included the Chief of the SADF, the Surgeon-General, the Chief of Staff Finances, the Chief of Staff Intelligence and other co-opted members.¹³²

When Basson returned from his information-gathering trip in 1981, he reported back to the Defence Command Council.¹³³ He told them that chemical and biological warfare programmes elsewhere in the world used civilian front companies to conduct all offensive research and development to the point of weaponization. In fact, this was not the way the Russian, American or British programmes were structured. Yet on the basis of this information, it was decided that front companies would be used, as opposed to structures within the Defence Force. These front companies were to become an important component of the labyrinthine arrangements of the CBW programme.

Basson also reported that in the late 1970s and early 1980s the emphasis of the American and Soviet chemical weapons programmes shifted to the weaponization of non-lethal chemical warfare agents.¹³⁴ Presumably this was to support the position that South Africa should pursue the development of non-lethal agents. In fact, the United States wrote its first paper on incapacitating agents in 1949 and had incapacitant programmes running during the 1950s under the concept of “the bloodless war” which developed after the bombing experiences of the Second World War. Indeed it was under this banner that the United States military lobbied Congress to increase their CBW budget. The incapacitant programme was then stopped, but resurfaced in the United States in the form of two programmes: once called Advanced Riot control Agent Technology and the other Advanced Riot Control Agent Device.¹³⁵ Basson’s statement to his superior officers was incorrect in claiming that the American chemical weapons programmes had shifted focus on non-lethal weapons in the 1970s and 1980s both because the work on non-lethal agents began much earlier and because the United States was at that time doing work on lethal nerve agents through the binary chemical weapons programme.

PROJECT COAST'S LINKS WITH THE POLICE AND OPERATIONAL UNITS OF THE MILITARY

Project Coast was, at least in part, established to address the P.W. Botha government's need to suppress internal political opposition. It was essential for the Project Officer, or more generally, project management to have a channel of communication with the police who were responsible for suppressing civilian resistance. Basson's personal relationship with the South African Police (SAP) forensic chief Gen. Lothar Neethling was one such channel.

One of the scientists who was later to head the biological warfare facility, Daan Goosen, claimed to have introduced the two men. Goosen was, at that stage, married to Neethling's niece. Basson and Neethling immediately got on well¹³⁶ and became personal friends. Their relationship went well beyond their professional contact. Testifying in the Basson trial, Niel Kirstein, the property developer in some of Basson's enterprises, said that Basson and Neethling owned adjacent properties in Pretoria and that they intended purchasing the adjoining properties with the view to development.¹³⁷ Kirstein also told the court about a Sunday flight to Walvis Bay with Basson and Neethling, who had "an appointment" in the enclave. According to Basson's defence attorney, Adv. Jaap Cilliers, Basson and Neethling were on official duty all day, meeting representatives of UNITA, Germany and Portugal. No explanation was given as to what this meeting was about or who the foreign representatives were. Basson testified that he and Neethling had been responsible for jointly developing the "recipe" for the CR fill for "projectiles", of which he said thousands were made.¹³⁸

During Basson's trial and the earlier TRC hearings, it emerged that during the early years of Project Coast Neethling visited Roodeplaat Research Laboratories¹³⁹ as well as the laboratories at the Special Forces headquarters¹⁴⁰ which were used by Basson. Gen. Knobel expressed surprise at the extent of the contact between the two men when he was questioned during the trial. He claimed to have been unaware of their

relationship, and particularly of Neethling's involvement in Project Coast,¹⁴¹ although, as manager of Project Coast he should have been aware of the formal co-operation between the police and the Project Officer. His ignorance represents a failure of the accounting channels of the programme and a failure to execute managerial responsibilities.

Belgian businessman Charles Van Remoortere also testified about the relationship between the two men.¹⁴² Neethling was the first person he approached when trying to market CW protective clothing to the South African security forces during the early 1980s. Van Remoortere said Neethling proved to be well-informed on the subject of chemical protection, and asked many questions regarding not only the suits, but the accessories—gloves, boots, masks and air filters.¹⁴³ In 1984 or 1985, Neethling introduced Van Remoortere and Basson to one another. In 1986 Van Remoortere, Neethling and Basson travelled to Belgium to meet with Jean-Pierre Seynaeve, managing director of Seyntex, near Ghent. According to van Remoortere, Neethling's role on the European trip was of technical adviser to Basson, as Neethling allegedly had a "vast" knowledge of CBW.¹⁴⁴ Neethling also met international contacts of Basson including Roger Buffham.

In 1984, Basson and Neethling had attended a conference hosted by Aubin Heyndrickx in Belgium, Basson masquerading as a policeman. There Basson and Neethling met German industrialist Hubert Blücher, who, Basson testified, knew or was soon made aware that Basson was engaged in sanctions-busting for the South African security forces.¹⁴⁵

In a document by Lt.-Gen. J.P. Van der Westhuizen,¹⁴⁶ former head of Military Counter-intelligence, Neethling is mentioned as having been a sounding board for Basson on Project Coast matters. When the document was shown to Neethling during the TRC hearings he denied the allegation.

What is clear is that the relationship between Basson and Neethling was close and Neethling had first hand knowledge of a number of key issues pertaining to the chemical and biological warfare programme.

Johan Koekemoer, an organic chemist at Delta G Scientific, approached Neethling in the early 1990s to tell him that he had been instructed by Basson to produce a ton of MDMA (the rave drug Ecstasy). He wanted Neethling's advice on the practicality of its use as a crowd control

agent and on the legality of its production. Neethling showed no surprise, as if he already knew of the plan, and he debated the various methods of production with Koekemoer.¹⁴⁷

According to Neethling's evidence before the TRC, CR was used on at least two occasions by the police to control crowds. Anti-apartheid activists in Gauteng believe that it may have been used in Phola Park, a township outside Johannesburg, in 1992.¹⁴⁸ Gen. (ret.) Badenhorst said that it was standard practice for Defence Force soldiers doing township patrols to be issued with CR between 1986 and 1987. At that stage Badenhorst controlled the CR stores.¹⁴⁹ There are no publicly available records to show when or how often CR was used internally, although there is a perception amongst anti-apartheid activists that there was a point during the 1980s when the teargas the police were using became more potent. It is likely that that this perception was based on CR replacing the more commonly used CS. Between 1985 and 1987 one of the authors (Peter Folb) wrote to the Minister of Health and Gen. Neethling asking them what kind of teargas was being used by the security forces, because it was harming innocent civilians. Folb pointed out that he believed from clinical observation that more than one kind of teargas was being used. He did not receive a response from the Minister of Health, nor from Gen. Neethling.

The link between the police and the chemical and biological warfare programme may have extended beyond the use of teargas to the more sinister aspects of the programme. The State's case against Basson with regard to the charges involving alleged human rights abuses, rested on the court accepting that pathogens and poisons produced at Roodeplaat Research Laboratories were given to members of the police and operators of the military's Special Forces to be used to harm individuals who posed a threat to State security. To this end, the State called witnesses from the front company, operators and policemen in order to establish a chain of evidence which they believed implicated Basson in authorizing the use of chemical and biological agents in covert weapons. Whilst the judge accepted that the operators did indeed kill, or attempt to kill their chosen "targets" in the ways they described, he rejected their testimony implicating Basson in the conspiracy. He said that the operators had testified under duress and had implicated Basson in the deeds in order to save themselves from prosecution.¹⁵⁰ The judgement, therefore, while finding that it was possible that poisons were used by operators and policemen did not find

the testimony linking the chemical and biological warfare programme to the specific incidents for which Basson was charged convincing.

It remains unknown, for example, whether the three police officers who were the alleged recipients of organophosphates possibly responsible for the poisoning of well known anti-apartheid leader Rev. Frank Chikane in 1989 had in fact received the organophosphate, paraoxon from RRL researcher Dr André Immelman and whether they used it to contaminate Chikane's underwear, as argued by the State.¹⁵¹ The court accepted Basson's testimony that he had introduced the three police officers to Immelman on the order of Gen. Kat Liebenberg and that he believed Immelman would supply the three men with drugs which could quickly incapacitate people who they wished to arrest, or for unspecified use in cross border raids.¹⁵² The court also accepted Basson's denial that he was aware that Immelman had made poisons available to the police officers, such as organophosphates. Basson's position as head of the chemical and biological warfare programme, under the management of the Surgeon-General would not, under normal military chains of command and control, have resulted in him having a relationship with operators. Basson's position was however unique. While he was Project Officer for Project Coast, Basson was based at Special Forces Headquarters and received operational commands from the Commanding Officer of Special Forces.¹⁵³ In addition, as head of a Special Operations Unit known from 1985 as Seven Medical Battalion which provided medical support to operational units of the security forces, Basson was responsible for ensuring that doctors accompanied operators on operations where it was possible they would have needed medical support. Members of the Special Operations Unit were mostly medical doctors many of whom received Special Forces training, and some of whom were to become future contractors and suppliers to Project Coast.

The State argued in the Basson trial that the close relationship between Special Forces and Special Operations extended to a relationship between the CBW programme and the covert units of Special Forces, in particular the "hit-squad" unit the Civil Co-operation Bureau (CCB). The State also argued that Basson, and other doctors from his unit had provided drugs for use in assassinations to the earlier incarnation of the Civil Co-operation Bureau, known as Barnacle. This SADF unit was established in 1979 as a covert operational division of Special Forces. Initially code-named D40, it soon changed its name to Barnacle. The primary objective of the unit was

to “eliminate” (murder) enemies of the State, particularly leaders and key people identified as targets, including members of the SADF.¹⁵⁴

The secrecy of Barnacle was of such paramount importance that any operator who posed a security threat was identified as a target for elimination. Whilst operators of the unit, including the units’ first commander, identified only as Mr K.¹⁵⁵ in the trial, alleged that Basson was the main conduit of toxicants from the laboratories at Special Forces headquarters to the operators of Barnacle and the CCB, Basson denied the allegation and the court found that the allegations were not believable. Judge Hartzenberg found the operators to have given reliable testimony about their own involvement in murders but he said that their allegations about Basson’s involvement were made in an attempt to save themselves from prosecution.¹⁵⁶ Mr K. told the Pretoria High Court in May 2000 that he had served in the Rhodesian army until 1978. In February 1979 he joined the SADF’s Special Forces, based first at the Bluff in Durban as group commander of 1 Reconnaissance Regiment. Shortly afterwards, he was called to Pretoria by Maj.-Gen. Fritz Loots, commander of Special Forces, and together they went to see the Minister of Defence, Gen. Magnus Malan. Mr K. was instructed to establish a front company to carry out clandestine operations, and to teach South African forces methods used in Rhodesia.¹⁵⁷

Documents handed into the court provide details about the structure and objectives of the unit. A document dated 12 December 1980 states that the purpose of Barnacle was:

- “Eliminations.
- Ambushes against strategic personnel.
- The collection of information in support of relevant operations.
- The collection of information where other sources in Special Forces cannot be used.
- Conducting chemical operations.
- Conducting certain special security tasks for Special Forces for example assessment of sources/agents and security spot checks of Special Forces personnel” .¹⁵⁸

The aims of the unit are reiterated in a document signed by the Commanding Officer of Special Forces, Maj.-Gen. Fritz Loots, in January 1981. The only difference was that in the later document “conducting

chemical operations” is replaced by “conducting super sensitive operations as instructed”.¹⁵⁹

According to the testimony of Mr K., orders and authorisation for eliminations were always verbal, from Gen. Loots to Mr K. The documents relating to Barnacle specifically state that the Director had no authority to make decisions on the elimination of targets, which was the sole province of the Commanding Officer, Special Forces. Elimination decisions were never questioned,¹⁶⁰ and the need-to-know principle was strictly enforced. When a task had been identified and a team appointed, the rest of the unit personnel knew nothing about it.

The unit was self-sufficient in respect of technical and logistical support, but funded by the SADF. In order to establish a cover for Barnacle, Mr K. and a colleague, Johan Möller, established an estate agency, NKJM, as a front company. But they were unable to conduct any “legitimate” property deals, due to a lack of expertise in the field. The name was changed to NKTF Security Consultants. The purchase of a smallholding near Broederstroom, from which Barnacle operated, was authorised by Defence Minister Magnus Malan and paid for with SADF funds.¹⁶¹

During 1979 and early 1980, Mr K. recruited “experienced” soldiers from both the Rhodesian and South African forces. These included Trevor Floyd, a Regimental Sergeant Major of 1 Reconnaissance at the time. Another Rhodesian, Gray Branfield (Special Branch) joined in mid-1979 and Danie Steyn, former Selous Scouts quartermaster, in 1980. Johan Theron was recruited as the security officer of the unit. Danie Phaal and armourer Phil Morgan (formerly from Rhodesia) also joined the unit. Col. Ben Raubenheimer was appointed as the Chief Executive Officer of the front company to handle finances and administration. In time, the unit had between 30 and 40 operators, of whom two-thirds were black. Their names remain unknown.¹⁶²

Mr K. testified that during the first few months of 1980, he and Trevor Floyd spent three weeks in trucks driving from Broederstroom to Rhodesia to bring back “everything” that had been supplied to the Rhodesian forces by Special Forces, including “special equipment”. What exactly was brought to South Africa from Rhodesia is unknown¹⁶³ but may have included the poisoned clothing used by the Rhodesian security forces and later seen at the EMLC facility.

Initially operations were confined to deep penetration reconnaissance. In time, the identification of external targets who had to be eliminated was added to the unit's tasks. Mr K. told the Pretoria High Court that when Reconnaissance commanders and SAP members involved in pseudo operations in SWA/Namibia began to experience "problems" with certain "turned terrorists",¹⁶⁴ it was decided they should be quietly disposed of. At that point Barnacle, and particularly Johan Theron, Mr K. and pilot Martin van der Linde, became involved in disposing of the bodies of SWAPO prisoners of war and own forces identified for "elimination".¹⁶⁵

According to Mr K.'s logbook, the first time he was involved in dumping what he assumed were SWAPO members into the sea from an aircraft was July 7, 1979. He took part in at least seven operations, piloting the aircraft to remote and desolate airfields in the bush or the Namibian desert. Corpses in body bags or semi-comatose individuals would be transported and handed over.¹⁶⁶

Theron testified that Fort Rev in Ondangwa, Namibia, was the forward operational base for the Reconnaissance Unit and the base from which pseudo operations were conducted. SWAPO prisoners were detained in large detention barracks with interrogation rooms attached. According to Theron, the detention barracks were overcrowded. A decision was made to kill detainees identified by the Commanding Officer of the base and the South African Police commander in Namibia.¹⁶⁷

Theron also said that some SWAPO members captured during pseudo operations were "turned". Others provided information and then were no longer "of any use". Theron said "once they had served their purpose they were a problem". The prisoners of war could not be detained because they could compromise the pseudo operations if they identified the operators after their release. Maj.-Gen. Loots and Theron agreed that killing them and dumping the bodies in the sea would be the most effective way of dealing with "the problem".¹⁶⁸ Loots was not called as a witness and his version of these discussions was therefore not heard.

Theron and Mr K. both expressed moral reservations about throwing their victims from the aircraft without first making sure that they were dead, but they did not want to shoot the victims in case the bodies made their way to the shore. For the first trip, on July 11, 1979 involving a single SWAPO detainee, Theron obtained a tranquillizer dart, of the type used on wild

animals, from EMLC. He was told by his EMLC contact, Jan Coetzee, that the dosage in the dart would kill a man.¹⁶⁹

With Mr K. at the controls, Theron picked up the victim from two SAP officers, a captain and a lieutenant, at a rendezvous in the Etosha Game Reserve. Once airborne, he plunged the dart into the man's buttock but it had no effect. The man put up a struggle as Theron tried to subdue him, with Mr K. shouting from the front of the aircraft "Just don't shoot him". He tried first, unsuccessfully, to strangle the man with his bare hands, then used a length of the "strong" self-tying plastic (for binding victim's hands) around the man's neck. Theron used a pair of pliers to tighten the plastic noose but even so, the man "would not die". It took about 15 minutes before the victim stopped kicking, thrashing about and wetting himself. Theron could find no pulse. The rest of the flight was "uneventful", except that when they landed to strip the body, the plastic was "deeply embedded" in the neck. Theron had "quite a problem" removing it before the body was dumped.¹⁷⁰

Theron was upset by the incident and turned to Loots for a solution. Theron claimed in his testimony that Loots consulted Basson in seeking a solution to the problem. According to Theron's evidence, Basson gave him supplies of muscle relaxants, Tubarine and Scoline with which to inject the victims before disposing of the corpses.¹⁷¹ Basson denied these allegations, saying that he did not give the drugs to Theron, nor did he meet with Loots. The court found that while Theron was "certainly a strange man" whose idea it was to eliminate people who posed a security risk, his testimony implicating Basson could not be believed. The court also found that the meeting involving Loots, Theron and Basson had not taken place as claimed by Theron.¹⁷² It therefore remains unproved that there was a relationship between the chemical and biological warfare programme and the murder of SWAPO victims, it was not however in dispute that the operators had used the drugs in question to murder their victims.

According to Theron in many cases the victims were first sedated with Vesperax (a sleeping tablet no longer on the market) or were injected with the anaesthetic Ketalar. The effect of the drugs was to paralyse the victim, including the respiratory muscles. Unless first injected with an anaesthetic, the victims silently suffocated to death whilst their minds remained alert.

Barnacle was succeeded by the Civil Co-operation Bureau, also known as "the Organisation" in military circles. The functions of the CCB differed

only slightly from those of Barnacle and included an emphasis on the collection of information about people, facilities and organisations regarded as enemies of the state. Target organisations of the CCB included the United Democratic Front and the South African Council of Churches.¹⁷³ Unlike Barnacle, the huge CCB structure also included police officers.

Secrecy shrouded the CCB. Any links to the State had to be well hidden. It operated on a cell structure and on a strict need-to-know basis. Members operated with pseudonyms and each member was financed to establish his own business as a cover for his activities. Some of the CCB members were military officers, others were recruited from the police.¹⁷⁴

The CCB was made up of an inner circle and an outer circle.¹⁷⁵ The outer circle did not know they were working for the State. The organisation was divided into regions of operation, each with a co-ordinator and manager. Members of one region would not know who the members of any of the other regions were. The regional managers reported to the Managing Director, Joe Verster, who in turn reported to the Chairman, the Commanding Officer of Special Forces (from 1985 to 1989 Gen. A.J.M. Joubert and from 1989 Gen. E. Webb), and the Chief of the Defence Force. There was a direct, operational, line of command from the Commanding Officer of Special Forces to the Project Officer of the CBW programme, which would suggest that there was a direct line of command from the CCB to Wouter Basson.¹⁷⁶ The State argued that the CCB made use of substances provided by Basson, or on his authority, to murder Gibson Mondlane in Mozambique, Enoch Dhlamini in Swaziland, and to attempt to murder ANC leaders Pallo Jordan and Ronnie Kasrils in London, and Dullah Omar in Cape Town.¹⁷⁷

Although Basson was not tried for the murders of Gibson Mondlane and Enoch Dhlamini, following a ruling by Judge Willie Hartzenberg, that murders which took place outside the borders of South Africa were not within the court's jurisdiction and he could not make a finding on these charges, testimony relating to the incidents was allowed. In both the case of Gibson Mondlane and Enoch Dhlamini, the State attempted to prove that poisoned beer, obtained from RRL had been used to murder the ANC members. Operators testified that they had obtained poisoned beer,¹⁷⁸ and RRL scientists testified that cans had been injected with poisons and the holes soldered shut at the front company but, the court found that there was no evidence to show that Basson was aware that poisoned substances had

been given to the operators and the testimony of the operators was contradictory and failed to implicate Basson or to conclusively establish that the two men had died as a result of consuming poisoned beer.

The murder of individuals who posed an apparent threat to the security of the apartheid government was one of the primary goals of the CCB and Barnacle. This was not restricted to opponents of apartheid but extended to SADF members who were seen as a threat to the secrecy of SADF operations. Indeed the Judge accepted the testimony of CCB witnesses and found that “their aim was to identify the enemies of the state and to ensure maximum disruption of the enemies of the state. In the process murder could have been committed, even through the use of poison. Their activities came to an end in September 1989”.¹⁷⁹

It can be concluded that it is possible that members of the South African Police and Special Forces unit of the SADF were the recipients of chemical and biological warfare agents for the purpose of assassination and that at least once biological agents were used with the intention of harming the health of a whole community.

The SADF and police made use of CR to suppress domestic opposition to apartheid but did not reveal that the teargas being used against civilians had changed from traditional CS gas despite requests for information from a member of the health professional community.

GETTING DOWN TO BUSINESS

The front companies of Project Coast were designed to hide the military's involvement in chemical and biological warfare. It was argued that they would be able to procure equipment and substances more easily than official military structures, an appealing argument in the light of economic sanctions against South Africa. The use of front companies also allowed the scientists access to colleagues internationally¹⁸⁰ and scientists could be attracted by the higher salaries offered at these institutions compared to the military.

Three front companies were authorised by the Minister of Defence. Delta G Scientific was to be the chemical warfare facility. Roodeplaat Research Laboratories (RRL) was to be the biological warfare facility and the evaluation and testing facility for the chemical agents produced at Delta G Scientific. Infladel was to be the administrative and finance company.¹⁸¹

Delta G Scientific and Roodeplaat Research Laboratories were the only two facilities where research and production of chemical and biological agents was carried out. It is extremely unlikely that any other facilities were used for this purpose under the auspices of Project Coast. The basis for this observation is that the audits of Project Coast show no significant amounts which could have been used for the purpose of large-scale production other than Delta G and RRL.

The scientific community in South Africa was small and the Afrikaans scientific community was a fraction of the broader scientific community. Word got around quickly and scientists soon knew what their colleagues were doing. Within this community it was an open secret that RRL was a biological warfare facility and Delta G a chemical warfare facility. Delta G was referred to jokingly as "the secretive organisation" (die geheimsinnige organisasie).¹⁸² Most of the scientists working within the front companies of the chemical and biological warfare programme retained their associations with their colleagues, mainly at the University of Pretoria, Rand Afrikaans

University, the University of the Orange Free State and particularly at the Onderstepoort Veterinary Faculty of the University of Pretoria and its institutes. While Dr Willie Basson, first Managing Director of Delta G Scientific received permission from the Rector of the University of Pretoria (where he was head of the Chemistry Department) to engage his colleagues in drawing up a proposal for the development of a defensive chemical warfare capability,¹⁸³ there is no evidence to suggest that the managers of the other academic institutions were aware of the nature of the work being conducted by the scientists.

Scientists at Roodeplaat Research Laboratories also retained contact with colleagues at the National Institute of Virology (NIV). Although the NIV was the only facility in South Africa which had laboratories with the necessary bio-safety levels, and sufficiently trained staff to work with viruses, there is no evidence to suggest that the NIV was involved in doing work for the biological warfare programme.

The third company, Infladel, was responsible for the technical information system,¹⁸⁴ operational coordination of the programme, and the security and safety systems of the other two companies. Infladel was used to channel funds from the SADF's Secret Defence Fund to RRL and Delta G Scientific. In 1990 Infladel ceased to exist and its tasks were assumed by Sefmed Information Services, which served until 1994 as the information front of the project. The financial and administrative aspects of Infladel's work after 1990 were contracted out to D. John Truter Financial Consultants.¹⁸⁵ Two other companies were formed to own the properties where Delta G Scientific and RRL were situated.¹⁸⁶

Although Delta G, RRL and Infladel were the only official front companies of the project, a number of other "private" companies were associated with the programme. Gen. Knobel outlined the relationship of the official front companies and these other companies as follows: Delta G's task was offensive chemical research, while RRL was responsible for the defensive biological programme. Tests were carried out on their behalf by a "private company", Protechnik Laboratories. Another "private" company, Lifestyle Management, was contracted to do the physiological research.¹⁸⁷ Another company, Technotek, was contracted in 1986 to do research to find suitable protective clothing materials. The SADF was therefore the chief client of Protechnik, Lifestyle Management and Technotek. While these companies relied on SADF contracts for their existence, they were not

official front companies authorised by the Co-ordinating Management Committee.¹⁸⁸ Most of the men who came to hold senior positions in all these companies started as members of the Special Operations Unit, which provided medical assistance to Special Forces operators and of which Basson was the Commanding Officer.

Dr Hennie Jordaan, a senior organic chemist at Delta G Scientific, told the authors that he had once visited the home of Philip Mijburgh, a member of this unit who was later appointed Managing Director of Delta G.¹⁸⁹ Jordaan described a photograph in Mijburgh's home. Pictured is a group of macho young men posing in two rows in the style of a team photograph in the setting of an army camp. The men are bare-chested, wear army boots and boxer shorts and most are holding heavy firearms. They are all linked to Project Coast: Wouter Basson, Philip Mijburgh, Wynand Swanepoel, Jan Lourens and others who became Chief Executive Officers (CEOs) of the companies. Jordaan was struck by the realisation that this close group had gone on to run the front companies of Project Coast or the companies which relied solely, or partly, on lucrative military contracts for their existence.¹⁹⁰

Jan Lourens who applied to the Truth Commission for amnesty for his involvement in Project Coast had a unique position in the system. He was Project Manager responsible for overseeing the construction of the Delta G research and production facility in Midrand and he provided the RRL scientists with specialised equipment. He was also successively the CEO of three service companies of Coast: Systems Research and Design, Protechnik and Hazmat. He also oversaw the manufacture of highly specialized assassination weapons. He had a close relationship for a period with Mijburgh and Basson. When he joined the project he was married to Antoinette Lourens, the librarian at Inladel. He was one of the few people who had an intimate knowledge of most parts of the project.

Lourens's story shows how Project Coast was built on personal relationships and informal networks. After completing a Bachelor's of Science Engineering in Physical Metallurgy at the University of the Witwatersrand in 1982/3 Lourens joined the Air Force. As a member of the Air Force he was based at 1 Air Depot, in the Chemical and Metallurgical Laboratories. The laboratories serviced the manufacturing department of the Air Force; Lourens's activities centered around the testing of fuels and

metals. During this time he completed a Master's of Science in Industrial Engineering.

Whilst working for the Air Force, he was approached by Philip Mijburgh who was an old school friend, and now a member of the Special Operations unit. Lourens assisted him with a pistol modification. Mijburgh suggested to Lourens that he join Special Forces and at the same time further his studies in Biomedical Engineering. About a month after being approached by Mijburgh, Lourens met Wouter Basson, Mijburgh's commanding officer. Basson offered a position to Lourens at Special Operations which included a programme for him to finish his studies in Biomedical Engineering.¹⁹¹

The Special Operations Unit which later became known as 7 Medical Battalion was a structure in which rank was not tied to salary or levels of responsibility. Seldom, unless operationally deployed, were the members of the unit required to wear uniforms. According to Lourens, Special Operations' conventional functions to act as medical back-up to special forces operatives, had melted into other functions.

Lourens' role in the unit was to provide technical support to the doctors of Special Operations. He was responsible, for example, for weapons modifications with special features, such as a gun that could fit easily into a doctor's bag. These skills were later extended by Lourens to the production of poison "applicators".¹⁹²

In 1982, just before Lourens joined the Air Force, Ministerial approval was granted for the establishment of Delta G Scientific.¹⁹³ The company began operating from a laboratory at Special Forces headquarters with a staff of about 25, under the directorship of Dr Willie Basson. It was here that Delta G started the small-scale production of CR teargas, known in the military as New Generation Tear Smoke. Six months later Delta G moved to a house in Brooklyn, Pretoria, and took on more staff. In September 1982 the company moved again, this time to an office block in Val de Grace, Pretoria.

When Lourens joined the unit in 1983 he shared a laboratory with Delta G staff. He assisted in the development of plans for an up-graded research and production facility and oversaw its construction. In early 1985

the new facility, situated at Midrand, between Pretoria and Johannesburg, was ready. A substantially larger Delta G moved into its new premises.¹⁹⁴

Gerald Cadwell was another long-serving employee of Project Coast. Cadwell joined the company in 1983. Although he had spent his working life as a chemist, he had no formal qualifications in this field. His task was to take products from laboratory scale to production scale.¹⁹⁵ His first task was to produce the new generation teargas. The new tear gas, CR, was allegedly less toxic, but between five and ten times more potent than traditional teargas (CS) used by the police. The project was given the code FP003. Hennie Jordaan described this early attempt at CR production as “a horror show” for its incompetence. After an accident in which a 50-litre flask cracked, spilling CR over the floor of the Val de Grace offices, Delta G management realised the laboratory used by Cadwell was too small for the task. The project moved to a laboratory at the Special Forces Headquarters, Speskop. After a second accident the project moved to its own laboratory building, known as the Pilot Plant, which was connected to the main Speskop building by a tunnel.

In December 1984, during the clean-up of the second CR accident, a fire broke out in the laboratory which added urgency to the need to move the operation. The day after the fire, while engaged in the cleaning up the debris, Cadwell “nearly died of shock on the spot” when he came across a 5-kilogram bottle, with a black ring around it, labelled Sodium Cyanide.¹⁹⁶ Until then he believed that the company’s work was centred on the development and production of teargas not lethal chemical agents.

In addition to the conventional production of CR in powder form, Basson instructed Cadwell to dissolve CR in methanol. A “couple of hundred” litres of the latter were prepared for testing. By the time the entire operation had moved to Delta G Scientific’s Midrand plant in August 1985, Cadwell estimated that only about 50 kilograms of CR had been produced.¹⁹⁷

It took several months to finalise the design and install the new plant at Midrand. By September 1985, 50 kilograms of CR had been produced in the new facility. In total, Cadwell estimated that 24 tons of CR were manufactured between mid-1985 to late 1986/early 1987. Both a 250-litre reactor and a 1,000-litre reactor were used.¹⁹⁸

According to Jordaan, one of the post 1991 Delta G research contracts was for the synthesis of analogues of CR. One of the variations (a compound which had a pyridine moiety in place of one of the benzene rings of FP003) caused severe blisters on the skin. Jordaan said he was sure that this compound was never made on large (kilogram) scale at Delta G.¹⁹⁹

The idea of making a binary dibenzoxazepine was discussed informally between researchers Gert Lourens, Johan Koekemoer and Jordaan but was never demonstrated on any practical scale. Jordaan was adamant that any claim that substances other than CR were developed to the stage of weaponization had no basis in fact.²⁰⁰ This is contradicted by the findings in *The State vs Wouter Basson*, in which it is stated that, the weaponization process developed to the point that there were prototypes of weapons filled with methaqualone and weapons filled with a mixture of a BZ variant and cocaine.²⁰¹

The recruitment of researchers for Delta G Scientific was the responsibility of Wouter Basson, as Project Officer. He delegated the responsibility to Willie Basson, the newly appointed head of the company. Scientists were recruited, together with military conscripts with appropriate qualifications and Special Forces doctors who were seconded. The number of conscripts who worked at Delta G is unknown. It would appear that they were in the minority.

A quarterly report for the second quarter of 1987 put the number of staff employed by Delta G at 165, as follows: 102 permanent white employees; 14 temporary white employees and 49 permanent black employees (the number of black employees had been reduced from 55 to 49 after “problems” had been experienced with the Chemical Workers Union. It was decided that more whites would be employed).²⁰² Racism underlay every aspect of the project. Of the 165 people employed by the company, it is estimated that 20 were scientists involved in research, development and production.

Not all those recruited were aware of the role of the front companies in developing a chemical and biological warfare capability. All scientists were required to sign documents swearing them to secrecy and were subject to extensive security clearance procedures which would at least have alerted them to the connection with the military. Some senior Delta G Scientific staff were aware that they were working for a military front

company and that their responsibilities included research and development of crowd control agents and chemical warfare defence. Hennie Jordaan was a highly experienced organic chemist. He started working at the Delta G laboratories in Val de Grace in 1985 while the construction of the Midrand facility was underway. At that stage the group at Val de Grace consisted of administrative personnel (directors, secretaries, security staff, a librarian, finance clerks) and a small technical laboratory group. This included a few analytical chemists, three biochemists and two senior synthetic organic chemists (Jordaan and Gert Lourens—Johan Koekemoer joined a few months later). The Delta G scientists concurred in interviews that open forums for discussion of technical aspects and the general business of the company did not exist. Secrecy and “security” were much in evidence. Filing cabinets were kept under lock and key. Offices were required to be elaborately locked even for a walk down the hallway²⁰³, though gossip and tearoom discussions ensured that most staff knew what was being researched most of the time, some staff may not have been aware of the precise nature of work done at the front company. Production was equally secretive at Delta G. Raw materials delivered to the plant were immediately stripped of all identifying marks and given code-names. Final products were also coded. The production manager, Corrie Botha, was never told what substances the plant was producing.²⁰⁴ He was merely given instructions as to the process to follow, provided with the raw materials and told to deposit the final product in the appropriate warehouse. Nevertheless he was often able to work out what the substances were. Industrial safety precautions did not appear to be a major concern of management.

By the end of 1985 most of the Delta G staff were based at the substantial Midrand factory with its four laboratories and three production plants. One of the plants at Delta G was originally designed as a waste treatment facility, but was hardly ever used. According to Jordaan, the waste generated by Delta G was relatively innocuous—there were no clandestine wastes. All wastes were dealt with by a commercial waste disposal company: Waste-Tec. The waste treatment plant was later turned into a production plant for Bromoxynil (a herbicide used in sugar cane cultivation). In order to maintain its front, the company engaged in some commercial projects.

There was a small scale-up plant available but, according to all the scientists interviewed, no scale-ups were ever done for lethal agents. In 1985 a kilogram of the incapacitant BZ was produced on laboratory scale

but the process was never scaled-up. The remaining unused chemical starting materials (bottles readily obtainable from commercial laboratory chemical supply houses) were destroyed much later during a general clean-up. There were no records of large purchases of the starting materials for BZ by Delta G Scientific.

Jordaan knew of all the chemical products of both commercial and military nature that were produced on larger than laboratory scale at Delta G. He told the authors that the products made for the military included:²⁰⁵

- CR (\pm 20 tons) and its intermediate precursor;
- CS (about 1 ton) which had previously been made by AECl;
- Methaqualone (about 1 ton) made by Gert Lourens and codenamed *MosRefCat* (Mossgas Refinery Catalyst). This name gave it a plausible cover in case there were questions from the process operators on the plant;
- MDMA²⁰⁶ (just less than 1 ton) made under the personal supervision of Johan Koekemoer.

Documentation confiscated at the time of Basson's arrest and used by the TRC in its 1998 hearing confirms Jordaan's recollection of production at Delta G.²⁰⁷

In 1986, a year after moving to the new facility, Willie Basson was replaced as Managing Director of Delta G by Dr Philip Mijburgh. Mijburgh, the nephew of Minister of Defence, Magnus Malan, had been a member of the Special Operations Unit.

During his early years at Delta G Scientific, under the management of Mijburgh, Jordaan was often struck by the lavish scale of entertainment and general extravagance displayed by senior Delta G employees. Business lunches and dinners were frequent, directors and higher officials lived the life of successful businessmen with all the appropriate trappings.²⁰⁸

There was some interaction between Roodeplaat Research Laboratories (RRL) and Delta G, with Delta G taking on some of RRL's biochemistry projects and RRL doing animal testing of some Delta G products. One example of this interaction involved anti-fertility work. According to documents from RRL, the facility had a number of registered projects aimed at developing an anti-fertility vaccine.²⁰⁹ This was a personal

project of the first managing director of RRL, Dr Daniel Goosen. Goosen, who had done research into embryo transplants, told the TRC that he and Basson had discussed the possibility of developing an anti-fertility vaccine which could be selectively administered—without the knowledge of the recipient. The intention, he said, was to administer it to black South African women without their knowledge. This was confirmed by Dr Schalk Van Rensburg who oversaw the fertility project. The chief researcher on this project, Dr Riana Bornman, denies that she was aware that this was the project's intention²¹⁰ or that it was a military project. Many projects were registered at RRL to investigate the production of a male and female anti-fertility vaccine but it was never produced.²¹¹ Peptide synthesis was initially undertaken for this purpose. The researchers thought that if the formation of HCG in women shortly after conception could be prevented, the result would be effective contraception. To this end Delta G purchased a peptide synthesiser²¹² and assisted RRL in this aspect of the research project.

RRL director, Dr Schalk van Rensburg oversaw the fertility project and told the TRC that “Fertility and fertility control studies comprised 18 percent of all projects”.²¹³ Van Rensburg, who was technical advisor to the research project, said he had received the initial instruction to conduct the anti-fertility work from Basson. He had been told that the purpose was to prepare a contraceptive that could be given to women soldiers of UNITA. Although van Rensburg was sceptical of the reasons given by Basson, he was aware that the World Health Organization supported research into contraceptives and that there was a possibility of the project making money for RRL. He estimated that there was little chance of the research producing positive results for at least 10 years and therefore it was unlikely to be abused by the military in the short term. Press reports at the time of the TRC hearing stated incorrectly that an anti-fertility vaccine that would only work on black women had been produced. By the time RRL was privatized, the research had not yielded a usable end product. Van Rensburg's belief that he, rather than the military, was in control of the fertility research was not unique. Other scientists interviewed expressed similar views, saying they would not have made certain aspects of their work available to the military for offensive application.

A Delta G project, undertaken in the early stages of the company's development, involved the isolation of ricin from castor beans and the development of an assay process. According to both Jordaan and Candy,

the project “appealed to the James Bond elements of the programme” but was totally unsuccessful and ultimately abandoned.²¹⁴

Delta G’s procurement needs were met by an in-house procurement officer, Johan van der Westhuizen, whose task it was to procure equipment and chemicals. Delta G also made use of a procurement company called Organochem, established by Wouter Basson and headed by “sanctions-buster” Jerry Brandt. It was during a procurement trip in 1990 that Brandt and his colleague, Grant Wentzel, were arrested in the United States for trying to export ion implanters, used for making microchips, to Hungary. Brandt was also accused of trying to buy a calibration handbook for missile guidance systems. The United States prosecutor allowed the two men, who pleaded guilty, to return to South Africa, on condition that they return to the United States a year later for sentencing. Wouter Basson paid Brandt’s airfare and accompanied him to the United States attorney’s office and to court where he was sentenced.²¹⁵ Wentzel, who has also admitted that he had pleaded guilty at the time to attempting to bribe an FBI agent, who was acting undercover as a customs officer, testified in the Basson trial that he had never returned to the United States for sentencing “because I didn’t have the money”.²¹⁶ According to the forensic audit of Project Coast, in 1992 Organochem was paid R600,000 from Project funds. No earlier or later payments are recorded.²¹⁷ Organochem was known to have been requested to purchase PMK, (piperonylmethylketone, a starting material used in the preparation of MDMA) for Delta G when the company was planning for the production of Ecstasy. Testimony in the Basson trial revealed that the PMK was produced in the garage of Delta G’s marketing manager, Barry Pithey.²¹⁸ He was assisted by Hennie Jordaan and Johan Koekemoer, at the request of Jerry Brandt who could not find PMK for purchase through his procurement network. According to Jordaan the scientists were hoping to make some money on the side.²¹⁹ The process failed when a fire broke out, nearly destroying Pithey’s home. Pithey was reprimanded by Mijburgh who accused him of threatening the security of the project. Although a small quantity of MDMA was manufactured from the PMK, Koekemoer found a more efficient route to manufacture just under a ton of the street drug.²²⁰

Basson himself seldom visited Delta G. When the scientists reported to him it was at the offices of Medchem.²²¹ This company was directed by Philip Mijburgh. Medchem owned 75 per cent of Delta G shares from late 1989.

One of the scientists at Delta G, Dr Lucia Steenkamp, explained to the authors how the scientific reporting took place. Steenkamp's doctoral research was on "The synthesis of peptides and peptide-conjugates and the evaluation of their binding to CD4 receptors". She said that in 1989 she was instructed to get reports on her AIDS research ready for Basson. Her first report-back to him took place in the Medchem offices in Centurion. She thought that there may be some link between Medchem and the military, because she had heard that Mijburgh was Magnus Malan's nephew. But she was not aware of Basson's link to the SADF nor that Delta G Scientific was a military front company. She was under the impression that Basson was a client of Delta G. He had been introduced to her as a representative from Armscor. She reported to him every four months. She said that in all the meetings she held with him, he made very little comment and was cold and intimidating. Steenkamp did not question why Armscor had an interest in AIDS research. She was of the impression that her doctorate was paid for by Armscor and that the arms manufacturer had classified her work. She believed it was still classified ten years later.²²² Steenkamp's naïveté demonstrates that staff at the front companies may have remained unaware of the links between the company they were working for and the military. In 1989 Delta G was taken over by the company Medchem Consolidated Investments, of which Mijburgh was a director. In 1990 the company was privatised and some staff were given shares²²³ in the newly private company. The final SADF contracts were completed in March 1993.²²⁴ At the time of privatisation, Delta G had a staff complement of about 200 (including non-scientific staff). Mijburgh, one of the directors of Delta G and Medchem gained enormously from the privatisation of the Delta G, making a profit of about R15 million.²²⁵ WPW Investments Inc., based in the Cayman Islands, had a 50 per cent interest in Medchem Consolidated Investments.²²⁶ According to the forensic auditor, Basson was the beneficial owner of WPW, Basson has denied the allegation and the court found that at all time the WPW group of companies had acted in the interests of the SADF.

The forensic auditor put the total cost of Delta G to Project Coast at R127,467,406, of which some R40 million went into the fixed assets of the company and R50,467,406 into operations. The cost of privatisation to the State was R37 million.²²⁷

ROODEPLAAT RESEARCH LABORATORIES

Roodeplaat Research Laboratories was initially established as an animal research and testing facility for substances produced at Delta G Scientific. Its brief later expanded to include research into chemical, and more particularly, biological warfare agents.

The company was started by Dr Daan Goosen. In 1975 Goosen qualified as a veterinarian. Three years later he obtained an Honours degree in clinical pathology, toxicology and pharmacology and joined the lecturing staff at Pretoria University's veterinary faculty. In 1978 he was appointed director of the HA Grové Animal Research Centre attached to HF Verwoerd Hospital (now called the Pretoria Academic Hospital).

Research animals at the centre included mice, hamsters, beagle dogs, pigs and primates (chiefly baboons and vervet monkeys). Goosen said that South Africa was in a particularly "fortunate position in regard to the supply of primates, which were much sought after internationally for research purposes and in this regard, various projects were launched jointly with scientists in the USA, France, Austria and Germany".²²⁸ The staff at the animal research centre included microbiologists. One scientist, Dr Hennie Jordaan, conducted research on the use of radioisotopes for medical purposes on behalf of the Atomic Energy Board.

One of the research projects carried out by the HA Grové Institute on behalf of the SADF dealt with the treatment of trauma. The research was led by a Professor Schlag, of Vienna. Extensive research was done on primates regarding trauma treatment with civilian interest being in the trauma treatment of vehicle accident victims.²²⁹

Some time during 1982, Goosen was approached by scientists from Delta G Scientific for guidance on the use of animals for experiments with the "household chemicals" they were manufacturing—"like swimming pool acid". This was certainly a cover story. He advised them on the basics of

dealing with laboratory animals. Later that year he met Basson when giving a presentation to the Surgeon-General about the trauma project and how it could benefit victims of landmine explosions.

Testifying in the Basson trial, Goosen said that from early 1983, he and Basson frequently discussed the use of chemical substances in a war situation. They wrote reports together about the threat of chemical attack on the SADF, about biological warfare agents, and about the use of rats as landmine detectors. Goosen and Basson talked about sensitive matters and had to trust one another implicitly.²³⁰

Goosen claims that in 1983 Basson asked him to get him a black mamba and its venom. Goosen claimed that Basson told him “they” had access to a State enemy who would be offered a few drinks while in a remote setting and would be then injected with the venom. The snake would be killed, and its fangs pressed into the dead man’s flesh to indicate a bite. The death would be recorded as snakebite.²³¹ This was the first indication that the front company which Goosen was to establish (RRL) would be used to develop assassination weapons.

Goosen established the size of a lethal dosage of mamba venom for a baboon and before dawn one morning he, Basson and Dr James Davies (a member of Special Forces and thus not considered a security risk) injected a baboon with the venom. Within a minute the baboon was dead. Goosen gave Basson the rest of the venom and a “huge” mamba.²³² If Goosen’s version is correct, the clandestine manner in which this incident took place shows that those involved were aware that what they were doing was both dangerous and illegal. It set a precedent for future activities at RRL. A few months later Philip Mijburgh brought the snake which had been nicknamed “Fielies”, back to RRL.²³³ He said it had served its purpose and could be destroyed.

In his criminal trial Basson was charged with the conspiracy to murder Roland Hunter, an SADF conscript who had been passing information about the SADF’s support to Renamo in Mozambique to the ANC. The State charged that the mamba was intended to be used to kill Hunter.²³⁴ Fortunately for Hunter he was arrested by the security police before the plan could be executed. Basson countered Goosen’s allegations, saying that he had not received the snake from Goosen but had instead received a mamba from Philip Mijburgh. Basson admitted that he had received

mamba toxin from Goosen on more than one occasion but said that he was using the venom to conduct peptide research. Basson also said that he had been hypothetically asked by Hunter's commanding officer, Cor van Niekerk, how one could murder an individual using an undetectable poison and Basson had mentioned that snake venom could be used.²³⁵ Under cross-examination Goosen said that the venom could have been used to develop anti-coagulants. Basson was acquitted on the charge of involvement in a conspiracy to murder Hunter²³⁶ when the Judge ruled that the State's case was flawed in that Goosen had said he had given Basson the snake some months before Hunter was identified as an ANC mole, and it was therefore not possible for Basson to have been involved in the conspiracy.

In mid-1983 Goosen was asked to help establish a military facility where chemical substances could be tested on animals. Although originally only an evaluation centre for outside products (envisaged as coming from Delta G) was proposed, this idea expanded to a full biological research and development centre. Jan Lourens' skills were called upon to design equipment for the company. In time this included a perspex restraining chair for primates; a gas chamber which could accommodate the restraint chair; a filtration system, and a primate semen extractor to be used in virility tests.²³⁷

While Goosen was at HA Grové, Goosen and Basson had discussed substances that could be used as biological weapons. The trauma research conducted at the Centre had shown that if *Clostridium perfringens* was injected into a healthy primate, it would suffer identical symptoms to those of post-traumatic shock, specifically with regard to lung function. Within 24 to 36 hours the primate would develop violent pneumonia which could lead to death. The use of *Clostridium perfringens* was scientifically debated by Goosen and Basson as a biological weapon. A small amount was made by RRL microbiologist Dr Mike Odendaal. Goosen testified that he knew that the company he was to head was intended to develop biological weapons²³⁸ and to do animal tests of chemical substances. RRL's work was not confined to biological warfare agents but included the small-scale synthesis of chemical agents.

Goosen claims that he and his colleagues agreed very early that they never wanted details on any targets. When asked to supply a substance, all they needed or wanted to know were the circumstances under which it

would be administered, as this could influence the dosage required. The advantage of this decision was that the scientists were not directly compromised. But it also meant they never had precise data for the weight of the target, or the climate in which the substance was to be used, both factors which influence effectiveness. This information would only have been required in the case of the use of chemical agents, as opposed to biological agents.

Goosen says he and Basson agreed on this arm's-length way of operating, and it was also discussed with former Surgeon-General Gen. Nicol Nieuwoudt and Gen. Knobel. They all agreed the need-to-know principle would be strictly applied.²³⁹ Despite this, the RRL directors were still worried about the selection of targets. Goosen said he spoke to Basson seeking reassurance that they were "legitimate targets" in the prevailing political climate, targets to be selected with utmost responsibility. Goosen regarded legitimate targets as those who threatened the security of the apartheid State. In contradiction of the claims made by Goosen, Basson said that he was never asked to supply toxins to anyone, nor would he have done so if asked. The only chemical substances he ever provided, were those designed to disorientate. At some time, the Security Police had sought medication that would induce diarrhoea in targets, but this had made no sense to him, and he had refused to help them.²⁴⁰

Basson delegated the task of recruiting RRL staff to Goosen. Goosen began recruiting colleagues he knew and trusted, including veterinarians Dr André Immelman, Dr James Davies and Dr Mike Odendaal. Dawid Spamer was appointed director of the company in charge of all administration. Dr Schalk Van Rensburg, recruited from the South African Medical Research Council, was one of the directors. The company's chief client was the SADF. Equal share certificates were issued to the directors—Goosen, David Spamer, André Immelman and Schalk van Rensburg. Simultaneously, they had to sign undated and blank share transfer forms. None of them was expecting to reap any personal benefit from their shareholding. It was clearly understood from that this was a State-funded facility.²⁴¹

Roodeplaat Research Laboratories' cover story was that it was a contract research facility in the pharmacological, agricultural, biological, veterinary and medical fields. Some private projects—about 15 per cent of the total—were in fact done by the scientists who published some work in professional journals.

RRL started out as a few offices in a shopping centre in Sinoville, north of Pretoria. Shortly thereafter a 350-hectares piece of land was bought north of the peaceful Roodeplaat Dam outside Pretoria and building began in earnest. Immelman headed the chemical and pharmacological departments. His staff included Klaus Psotta, Johan Schreuder, and J. Niewenhuis, with James Davies in charge of toxicology. Schalk van Rensburg ran the animal research laboratory with staff including Mike Odendaal, Dr Woody Meltzer and Dr Riana Bornman. Dr Bornman was in charge of reproductive physiology. Later Odendaal headed a separate department of Microbiology.²⁴²

Figures for RRL, excluding technical assistants, cleaners and maintenance staff, put the number of technical professionals employed at 31. According to one of the directors at RRL, there were 11 graduates and 20 technicians in the 6 departments at the facility. Each department had one expert.²⁴³

In order not to draw attention to the construction of a high-tech facility just outside Pretoria, RRL was built in phases—the animal centre first, then the basic laboratories. Five research laboratories were shared by microbiology and reproductive physiology. The laboratories were fully operational from 1985. The high-risk (bio-safety level 4) facilities were to come later.

Before the construction of the laboratories, the existing farmhouse on the property was the centre of operations, housing the administration. Close by, small buildings each containing up to five laboratories were erected, for the synthesis of chemical substances and also for some microbiological work. A Containment Laboratory, planned by Immelman, worked specifically on products like Sarin, Tabun and VX. Security at this laboratory was extremely high and access restricted. The laboratory was visible through a large glass window from an adjoining room. Scientists would don protective suits with independent air supply before entering. A qualified nursing sister was on duty in case of accidents while the laboratory was in use.²⁴⁴ This was a bio-safety level 3 (P3) facility.

Goosen has said that he was party to discussions about chemical and biological assassination weapons²⁴⁵ that concluded that the ideal substance would be an organophosphate which research had shown to be effectively absorbed through the skin. DMSO (dimethylsulphoxide) was selected as the

most suitable carrier for the poison, because it was quickly absorbed through the skin in liquid form.²⁴⁶ Paraoxon was, believed to be the best organophosphate for the intended purpose. It was synthesised from Parathion, a potent poison widely used in agriculture which has been responsible for the deaths of both animals and humans on farms.

According to Goosen, the objective was to develop the ultimate murder weapon—a lethal poison that could not be traced during an autopsy (or, if traced, could not be traced back to RRL or the military).²⁴⁷

Some RRL research reports appear to support Goosen's claim that RRL was single minded in this objective. The reports demonstrate an obsession with finding substances that would be impossible to trace *post-mortem*. A report headed: *Product information about botulinum toxin* informs the reader that the toxin is soluble in tap water, dam water, milk, beer and wine and warns that mixing the toxin with strongly alcoholic substances such as whisky and gin should be avoided.²⁴⁸ Research done into ionophore antibiotics²⁴⁹ showed that RRL was "investigating the substances for clandestine use" because "the advantage is that if it can cause acute or sub-acute heart failure, the ionophore will not be traceable".²⁵⁰ Overdoses of antibiotics were also investigated through animal experiments. Overdoses of the veterinary antibiotic monensin was known to attack the heart muscles in ruminants.²⁵¹ A horse used in an RRL experiment had nearly died of heart failure. These findings, according to the report, had led RRL to investigate the possibility of using the drugs for covert operations against human beings. To this end, tests had been done on baboons. When mixed with alcohol and administered intravenously, the antibiotics killed the baboons within six hours. No damage to the heart muscle could be found during autopsy, and the substance was undetectable in the post-mortem toxicology results.

Work done at RRL for Delta G included a study of the toxicity of phenylsilitrane.²⁵² Little is known of this substance. Dr James Davies and Dr André Immelman, who were responsible for most of the military work for RRL, conducted tests on rats to determine the toxicity of the substance. Twenty-five rats were used in the experiment, in groups of five. Each group was given different doses. The experiment was unsuccessful because, although many of the rats died, the rats in different groups died in no particular pattern.²⁵³

RRL research report on the toxicity of phenylsilitrane

PROJEK 86/H/028/50

26 FEBRUARIE 1987

FENIELSILITRANE IN BOBBEJANE

A. Materiaal en metodes:

1. Toetsmonster: Fenielsilitrane in DMF oplossing.
2. Diere: Drie volwasse manlike bobbejane.
3. Huisvesting: Konvensionele hokke.
4. Prosedure:
 - a. Spuit die bobbejaan intramuskulêr teen 1mg/kg lewende gewig.
 - b. Doen kliniese waarnemings.
 - c. Volledige post mortem indien die diere vrek.

B. Resultate:

1. Na ongeveer 5 minute nadat die diere gespuit is, was hulle ataksies en gedisorïenteerd, met gepaardgaande spierrukkings.
2. Geleidelik het respirasiediepte en -tempo afgeneem en gestaak na ongeveer 12 minute terwyl spierruk nog steeds aanwesig was.
3. Diere vrek aan 'n asemnood na ongeveer 15 minute.
4. Met die nadoodse ondersoek was die post mortem *negatief behalwe vir uitgesproke sianose en baie vinnige rigor martis.
* Negatief = geen sigbare makroskopies waarneembare afwykings.
5. Die spuitplek in die spier was hiperemies wat deur irritasie veroorsaak kon wees.

...

Tests were conducted on three baboons with phenylsilitrane. The RRL report notes that all the baboons suffered muscle spasms and disorientation after 5 minutes. After 12 minutes they still showed signs of muscle spasms along with difficulty breathing. All died from suffocation within 15 minutes.²⁵⁴ Further research showed that the substance was not stable in solution. Throughout 1987, Davies and Immelman sought to determine the LD50 (toxicity) of the substance. It was made into various formulations and tested on the skin of laboratory pigs but no absorption was found to have taken place.

Goosen recalled how during an informal discussion about organophosphates there was some discussion about how effective they would be in assassinations. African National Congress leaders and “Communists” were mentioned as suitable targets for elimination. There was some talk about how hard, for example, it would be to get to South African Communist Party leader Joe Slovo, and what substances could be used if an assassin had only one minute in which to use it. Nelson Mandela, too, was discussed—if he could somehow get cancer before being released from prison, his release would present less of a political problem.²⁵⁵ Mike Odendaal recalled being asked for Salmonella by André Immelman, to be told that it would be used to poison ANC members at a meeting which he thought was in Soweto. Odendaal heard subsequently that the ANC members had become very ill, but had not died.²⁵⁶ Such people were considered legitimate targets by the scientists.

At first, contact between RRL and the SADF was via Goosen and Basson. Later, meetings were held at the Sterrewag (Observatory) premises of Military Intelligence on the southern outskirts of Pretoria. These were usually attended by Basson, RRL security chief Charl Jackson and Philip Mijburgh.²⁵⁷ Monthly meetings also took place between the RRL directors and the Surgeon-General, at which all current projects were discussed. Goosen says there was no doubt among the RRL staff that the Surgeon-General knew what work they were doing²⁵⁸ though Knobel has denied this.

Security was strictly enforced. Once the RRL directors had nominated a team for a specific project, the team were not allowed to discuss their work with anyone outside. RRL’s management believed their funding came from the Secret Defence Fund. Goosen claims that under his management finances administration were handled scrupulously. Even within the

allocated budget, the managing director and his fellow directors had no leeway to make decisions on expenditure. The Surgeon-General had to be consulted on all expenditure outside the stipulated budget and he could only be contacted through Basson.²⁵⁹

Infladel was formed specifically to manage the finances of RRL. Infladel staff included Ben van den Berg and Philip Mijburgh. The company auditor was Pierre Theron, appointed by PW Botha himself.²⁶⁰ Company audits did not include a physical verification of purchases.

Goosen lost his job as managing director just as the facility was about to go into full production in 1986. He was accused of having breached security by talking recklessly at a scientific conference held in the Kruger Park, having received a subsidy from the company to which he was not entitled and having misused funds allocated to the building of RRL facilities.²⁶¹ Both Goosen and the State prosecutor believe that he was set up to lose his job so that he could be replaced by Special Forces dentist Wynand Swanepoel, who had a close relationship with Basson and suspect that Goosen was given a psychotropic drug at the conference.²⁶² After losing his job at RRL, Goosen became head of Roodeplaat Breeding Enterprises, a facility established on the same property as RRL, which bred dogs for the security forces.

As was the case at Delta G, RRL did some commercial work to secure the cover of the company. Covert projects undertaken by the company on behalf of the military or the police were initially classified as H projects, or hard projects, a coding later changed to R. According to Schalk Van Rensburg, RRL's head of laboratory services, commercial projects represented 5 per cent in the early stage of operation and gradually grew to about 30 per cent; he claimed that the costs of these projects did not account for more than 10 per cent of the budget.²⁶³ Good Laboratory Practices were not introduced at RRL until just before privatisation in 1991²⁶⁴ which was a hindrance to effective marketing. Research was also done into antibiotics on behalf of pharmaceutical companies. Both bacteria and yeast cultures were used.²⁶⁵

Goosen said, in his testimony during the Basson trial, that of the 203 project files found in Basson's trunks after his arrest in 1997, 177 dealt with biological weapons. The other 26 related to "soft" or commercial projects. Of the 177, 34 dealt with antidotes and treatment for biological agents and

of these, only three were final reports. (This surprised Goosen, since by his reckoning, there should have been 76 final reports.) Of the 34, seven projects were pre-1988 while the rest were dated from 1988 to the early 1990s.²⁶⁶

Van Rensburg told the TRC that while Gen. Nieuwoudt was still Surgeon-General,²⁶⁷ occasional meetings were held where administrative and technical reports were presented. Work instructions came from the Managing Director of the company, initially Daan Goosen and later Wynand Swanepoel. André Immelman was often responsible for initiating projects. Van Rensburg's main responsibility was commercial contract research, which he claims to have deduced was a cover for clandestine biological warfare research. His insight into these "hard" projects came from having to screen research for ethical justification for the use of animals. All animal tests had to be screened by the ethics committee of which he was the chairman.²⁶⁸

The procedure for animal tests was explained by Van Rensburg to the TRC hearing as follows: "a verbal instruction for a project would be given, usually from Basson himself, through Immelman. The researcher would prepare a written proposal which would be given to Immelman. Immelman would accept or modify the protocol. If the research required the use of experimental animals, it would then be passed through the Animal Ethics Committee. The project would then commence".²⁶⁹

According to André Immelman, he and Basson met regularly to discuss projects. Basson visited RRL frequently. Others at RRL said they hardly ever saw Basson. Later, at Immelman's suggestion, Basson also liaised directly and individually with the heads of the various departments. Basson could veto any project if he did not believe it to be in the SADF's interest, and he could request research on any substance or application options.²⁷⁰ Immelman said that there were "cases and cases" of pathogens in the microbiology laboratory²⁷¹ but failed to say what these pathogens were. Odendaal explained to the authors that the cases referred to by Immelman were the "filing cabinets" in which the culture collection was kept, and not large stockpiles of pathogens.²⁷²

The synthesis of paraoxon was an ongoing project and there was always "plenty" available.²⁷³ RRL synthesised paraoxon because it was "reasonably easy" to make and required a fatal dose of only 1 milligram per

kilogram of body weight. It was quickly absorbed. If detected post-mortem, death could always be attributed to the common agricultural organophosphate parathion. Research into paraoxon also offered an ideal cover for establishing the laboratory in which research would be done on the nerve agents Sarin, Tabun and VX, since the same stringent standards applied.²⁷⁴ Immelman believed the parathion research could result in a new way of treating people with organophosphate poisoning and a biochemistry project was registered for this purpose.²⁷⁵

Paraoxon was added to lip balm, shampoo and roll-on deodorant, but not produced as an aerosol because RRL did not have the facilities for this. Kobus Niewenhuisen was involved in the toiletries project while Klaus Psotta (his predecessor as head of the chemical department) carried out research on paraoxon mixed with tobacco. Paraoxon—a thin, oily substance in its natural form—also mixed easily with alcoholic beverages.²⁷⁶

Dr Klaus Psotta,²⁷⁷ an organic chemist, was in the unique position of having worked at both Delta G Scientific and Roodeplaat Research Laboratories. Psotta refused to talk to the authors, though he did testify in the trial against Basson. When he was recruited, to Delta G in 1982, Psotta was employed at the CSIR. He knew that RRL was engaged in research and production of chemical and biological warfare agents. He worked in the synthesis department of Delta G until he was transferred to RRL in February 1984, where he continued to synthesise chemical compounds.

Psotta said that on Basson's direct orders, he was instructed to synthesise 500 grams of methaqualone. When Psotta learned "through the grapevine" that Delta G had been ordered by Basson to produce 500 kilograms of methaqualone, he stopped the work. He considered Basson to be wasting his time with such a small quantity while Delta G was already producing methaqualone by the kilogram.²⁷⁸

At RRL Psotta synthesised all the paraoxon, tabun, monensin. The synthesis of VX was a complicated and difficult process and he progressed only as far as the first two or three steps. Psotta synthesised paraoxon on four occasions. The final product—20 grams—was given to Dr André Immelman. This was a very small amount of paraoxon.

**RRL project report:
“The formulation and evaluation of PO [paraoxon] in lip balm”**

ROODEPLAAT NAVORSINGSLABORATORIUMS (EDMS) BPK

TELEKS: 3-22422 (SA)
TELEFOON: (012) 82-1012

POSBUS 13873
SINOVILLE
0129
6 AUGUSTUS 1987

PROJEK NR: 87/0/P/022 RNL

TUSSENTYDSE PROJEKVERSLAG

1. a. VERSLAG NOMMER: 1
b. PROJEKSPAN: S V Weldhagen
c. OPDRAGGEWER: R N L
2. DOEL:
Die formulاسie en evaluاسie van PO in 'n lipbalsem.
3. OPSOMMING.
Formulasies:
 - a. “Enkeldosis”
Maksimum inhoud van PO is geïnkorporeer in die lipbalsem.
Nagenoeg 1/3 van totale massa - Estetiese waarde ietwat verlaag.
Slegs boonste 2-5mm - swak hegting.
 - b. “Opbouende dosis”
 - Hoër konsentrasie regduer die stasie versprei. 1/4 van totale massa.
 - 2 getosts: een effektief.
 - egter na een dosering.
7. RESULTATE:
Soos genoem was resultate nie voorspelbaar nie, moontlik te wyte aan:
 - a. Nie homogene monster.
 - b. Variاسie in weerstand van verskillende diere.
 - c. Verwydering van die balsem vanaf lippe deur proefdiere.
9. AANBEVELINGS:
Hoër dosis met opbouende effek.

...

A file shown to Psotta during his testimony in the Basson trial contained the test results of a project he carried out from August 22, 1985 to September 26, 1986 on the stability of paraoxon in nicotine.²⁷⁹ A month after being mixed with nicotine, Psotta's research showed 24 per cent of the paraoxon was still left. At the end of the 13-month experiment, his conclusion was that paraoxon remained extremely stable in nicotine. The paraoxon research then progressed to animal testing. An experiment was conducted by Dr James Davies, under the direction of André Immelman, to determine the effects of the paraoxon/nicotine combination in dogs. Nine adult beagles were to be orally dosed, three with paraoxon, three with nicotine and three with a combination.²⁸⁰ No documents showing the results of these experiments were retrieved from the trunks.

Psotta was also instructed to test the stability of paraoxon in water, cooking oil and petroleum jelly (Vaseline). He found that when heated, paraoxon remained potent in water. It did not mix well with cooking oil and Vaseline (petroleum jelly). Results of his experiments on paraoxon mixed with alcohol, specifically whisky and gin, were given to Dr James Davies and the Austrian researcher, Dr Schreuder (who was based at RRL doing research into organophosphates used in the farming industry).²⁸¹

Psotta was asked during the Basson trial if, while engaged in this work, he ever envisaged the use of paraoxon against enemies of the State. He replied that given the political climate at the time, it would have been almost impossible to envisage any other purpose for paraoxon mixed with whisky, gin, and in cigarettes. He added that, in principle, he had no qualms about the use of paraoxon against "the enemy". Adv. Jaap Cilliers, Basson's defence attorney, asserted during cross examination of the witness that the purpose of the work on paraoxon was VIP protection, saying that it was necessary to synthesise chemical agents in order to develop defences against them.²⁸² Psotta admitted that he was never requested to extract paraoxon specifically so that it could be used, although there were rumours to that effect. Psotta also admitted during cross-examination that if the only purpose of RRL was to poison individuals it would have been nonsensical to have such an expensive project.²⁸³

According to Immelman, some time after the mid-1980s, he began to question the legitimacy of the work being done by RRL. He voiced his doubts to Basson, and was assured that all projects had the approval of the

State Security Council. Even though Immelman had no idea who or what the SSC was, he accepted Basson's word.²⁸⁴

When Wynand Swanepoel became managing director of RRL, he frequently reminded Immelman of the importance of maintaining good relations with Basson. Immelman found himself realising more and more that the toxins he supplied were probably being used to kill people, and said he became resigned to the fact.²⁸⁵

All the scientists who testified at the TRC hearing referred to the secrecy surrounding their work and the need-to-know basis in which business was conducted. Some scientists in RRL had no knowledge of what a scientist in the next room was doing. Although most of the scientists talked to each other and had, at least, a general understanding of what others were doing. One of the scientists admitted to being afraid to leave the company for fear of his life, saying that he had been told by Basson that speaking out against the company or leaving could have life threatening implications.²⁸⁶ A Delta G scientist recalled how he had gone home one afternoon and discussed a minor work issue with his wife. The following day he was called into Basson's office and told off for breaching security²⁸⁷ which made him believe that electronic surveillance equipment may have been placed in his house.

The secrecy which governed scientific work at both Delta G and RRL had a profound influence on the ethics of the work done. Testifying at the TRC hearing, Schalk Van Rensburg, who was also chair of the Animal Ethics Committee at RRL, stated that although he was required to review research proposals submitted by his colleagues before any animal experiments were conducted, he was denied access to the laboratory where these experiments took place.

Testing of organophosphates on animals was extensive. Research reports revealing the use of dogs and primates as test subjects were found in the trunks discovered shortly after Basson's arrest in January 1997. These reports showed that organophosphates were tested on large numbers of primates. Little concern was shown for the well-being of the animals. Other tests included the effect of brodifacoum on rats, a poison that causes death by blood loss and brain haemorrhage.²⁸⁸

Evidence presented in court by Barnacle and CCB operator Danie Phaal suggests that brodifacoum may have been tested on a prisoner of war in Namibia.²⁸⁹ According to Phaal, Basson met him at the Waterkloof Airbase early one morning and gave him a small bottle—the size of a bottle of eye drops—containing a liquid which he was told to mix with orange juice and give to the victim. As soon as the man showed signs of illness, Phaal was to transport him to 1 Military Hospital on the first available flight. He claimed to have been told by Basson that it was an experiment.²⁹⁰

Phaal presented himself at Ondangwa as a doctor and was taken to the detention cells by the intelligence officer. The SWAPO soldier he saw was in good health. After talking to him, Phaal offered him orange juice, with which he mixed, out of sight, the contents of the bottle from Basson. The following day, Phaal was summoned urgently by the intelligence officer, who told him something was wrong. When he got to the cell, it was obvious the man had suffered extensive blood loss. There was blood on his calves, on the toilet bowl and on the cell floor. Phaal said the man was “not in good shape”.²⁹¹

Phaal arranged for the detainee to be flown to Grootfontein on the first available transport aircraft and from there, to be flown to Pretoria. On arrival at Waterkloof air base that evening, an ambulance was waiting to take the man to 1 Military Hospital. During the flight, he had injected the victim with “something” he was given by a doctor at Grootfontein. Some time afterwards, Phaal was told by Basson that the man had died.²⁹²

Basson denied having giving Phaal any substance or having been involved in such an experiment. The Judge found that Phaal’s testimony was motivated by a desire to obtain indemnity for his role in murder which had caused him to implicate Basson.²⁹³ The Judge found Phaal’s explanation of the motive for the incident strange since if the purpose was to kill the man why would he have been brought back to South Africa? If it was an experiment it would have been better to do the experiment in South Africa. The nature of the experiment and what happened to the man remained unanswered in court and Phaal was found not to have been a good witness. This operation is the only one in which Phaal implicated Basson, his testimony was found to have been unbelievable and Basson was found not guilty on the related charge.

There are indications that human experiments were conducted to further the purposes of Project Coast. Documents handed to the TRC by Gen. Knobel revealed that SADF soldiers were also experimented on. In a document answering questions put to him by the Office of Serious Economic Offences (OSEO), Knobel reported that the physiological effects of methaqualone were investigated in humans and that a few mortars were prepared for experimental use:

“[T]he results of this were all right, although it seemed that the intense upsurge, excitement, stress and tension that the target individuals experienced during armed skirmishes led to the agent taking longer to take effect than what was experienced by the people experimented on”.²⁹⁴

No details were given in the document, or verbally by Knobel about who the “people experimented on” were or how the experiments were conducted. Knobel told the OSEO that as a result of these tests, a new methaqualone analogue was sought, to overcome certain drawbacks.

Despite repeated requests by the authors to the South African National Defence Force (SANDF) in 1999 and 2000, no information about the protocols followed by the researchers in the human experiments has been forthcoming. Knobel did tell the TRC that he believed the test subjects were “volunteers”:

“As I understood it, volunteers of Special Forces but also of 7 Medical Battalion group took part in simulation exercises in which they tested these few mortars to see what the effect would be on humans within battle conditions”.²⁹⁵

In the Basson trial Dr Kobus Bothma recalled how he had carried out a gruesome human experiment. Bothma, a medical doctor, was a member of the Special Operations Unit. One day in the mid-1980s,²⁹⁶ he said, he was told that orders had been issued for three people to be killed in an operation that would involve him and Johan Theron. Bothma claimed that Basson handed him a bottle containing a jelly-like substance and told him to smear some of it on the victims and observe the results.²⁹⁷ According to Bothma and Theron, the next day they left for Dukuduku, a remote SADF training camp in KwaZulu Natal, in Theron’s vehicle. Somewhere outside Pretoria, they were met by men with a minibus. Three young black men in

their 20s were being held in the bus. Theron told Bothma to sedate them. Having been told by Basson to use Medazolam (a sedative sold commercially as Dormicum)²⁹⁸ Bothma injected the substance into cans of cold drink given to him by Theron. The three victims, bound hand and foot, drank the cold drink and fell asleep.²⁹⁹

On arrival at the Dukuduku military base, Theron shackled the three men to trees overnight. The next morning, Bothma and Theron went to the men. One of them had almost sawed through the branch to which he was handcuffed in an attempt to get free. Although the three men were conscious, Bothma does not think they realised what was happening.³⁰⁰

Bothma donned a surgical glove and smeared some of the jelly onto the upper arm of one man. He claimed in court that he had earlier also applied a small amount of the substance to his own skin, and had no reaction. He and Theron waited a while to see if the victim showed a reaction. When he did not, Theron told Bothma: "It's time for these three to say goodbye". Bothma said he knew Theron meant the three men had to be killed. It is at this point that the testimonies of Theron and Bothma differ. Bothma claims that he could not stomach the thought of murdering the men so he walked away while Theron administered the lethal doses of muscle relaxants. Theron claims the two men took turns to inject their victims. The men's bodies were loaded into an aircraft and flown out over the sea and the bodies thrown from the aircraft. Bothma said he reported back to Basson, saying the jelly had no effect on the victims. He told the court that he had been traumatised by the incident, and had been through "20 years of hell" since it happened.³⁰¹ Bothma is now practising as a doctor in Richards Bay in KwaZulu Natal.

Judge Hartzenberg found Bothma and Theron to have been poor witnesses. He said that testimony of the two men had been contradictory and that Bothma's reasons for having accompanied Theron on the operation were hard to understand. Bothma said that he had needed to sedate the victims, something which Theron could have done himself. He said that he had to test the effect of the ointment, which Theron could also have done, and lastly he said that he had to certify the men dead, a claim which the Judge found absurd. Basson denied having given Bothma the order to accompany Theron, or having given Bothma the ointment. The Judge found that because the two witnesses versions of events were

contradictory it was impossible to find that Basson could be involved in the incident.³⁰²

In 1997, shortly after the arrest of Wouter Basson, trunks containing documents were found at the home of his associate, Samuel Bosch. The documents included research at RRL and Delta G Scientific, some personal documents, and documents relating to various companies associated with Project Coast. One of the documents found in a trunk was a list of poisons RRL had for sale. This list, the Verkope (Sales) list was compiled by head of research at RRL, Dr André Immelman who testified in the Basson trial that the document was a list of items he gave to people introduced to him by Basson. They included members of the South African Police, a medical doctor linked to the Civil Co-operation Bureau, and a psychologist, Johnny Koortzen.³⁰³ In his testimony, Basson said that he had been instructed by the Chief of the SADF to assist the Security Police, who were experiencing “problems in relation to incapacitants”. Basson said he decided to introduce three Security Police members—Chris, Gert and Manie—to Immelman, since Immelman had access to all the substances tested for Delta G, and knew the properties of each. Basson said he was too busy to deal with the Security Police, but for security reasons, arranged that Immelman should meet with Chris, Gert and Manie in his office in future. However, Basson claims he was never told what Immelman gave them, or what the intended use was. Basson said he did not know of the existence of the Sales list, and never saw it before being confronted with it during his bail application. He could not comment on the contents of the list, except to say that the items against his own name would have been needed either for personal research, or for training purposes.³⁰⁴

State prosecutor, Dr Torie Pretorius put it to Basson during cross-examination that every product on the list was highly toxic and that specific attention was paid to the traceability of the substance post-mortem. Basson responded by saying that in low dosages, the items on the list were also incapacitants. Basson said that he had given training lectures at the Military Intelligence College which were attended by Special Forces members whose job was to gather intelligence in foreign countries. Basson’s task was to educate them so that they would survive and explained that to this end, he used chocolates, milk, whisky, tea, coffee, whatever was appropriate, laced with toxins to illustrate his points. He took laboratory animals along for the lectures and drove home the dangers with “graphic illustrations” by feeding the animals the poisoned food or beverages. Basson said he had

bought white mice from pet shops, then fed them poison chocolates, for example. Fish and snakes were also used.³⁰⁵

The Verkope list nevertheless, provides a unique insight into the covert work of scientists at RRL.

Verkope List

Datum Gelewer	Stof	Volume	Prys
19.03.89	Phensiklidien Thallium asetaat	1 x 500mg 50g	Teruggegee
23.03.89	Phensiklidien	5 x 100mg	
04.04.89	Aldicarb - Lemoensap	6 x 200mg	
04.04.89	Asied - Whisky	3 x 1,5 g	
04.04.89	Paraoxon	10 x 2ml	
07.04.89	Vit D	2gr	
15.05.89	Vit D	2gr	R300,00
15.05.89	Katharidien	70mg	R150,00
15.05.89	10ml Spuite	50	
16.05.89	Naalde 15G x 10mm	24	R18,00
16.05.89	Naalde 17G x 7,5mm	7	R7,00
19.05.89	Thallium asetaat	1g	
30.05.89	Fosfied tablette	30	
09.06.89	Spore en Brief	1	
20.06.89	Kapsules NaCN	50	
21.06.89	Bierblik Bot	3	
21.06.89	Bierblik Thallium	3	
21.06.89	Bottel bier Bot	1	
21.06.89	Bottel bier Thallium	2	
22.06.89	Suiker en Salmonella	200gr	
27.06.89	Wiskey en Paraquat	1 x 75ml	
20.07.89	Hg-sianied	4gr	
27.07.89	Bobbejaan foetus	1	

04.08.89	Vibrio cholera	16 bottels	
10.08.89	Asied 4 x gr	Kapsule sianied 7	
11.08.89	Sigarette B anthracis	5	
	Koffie sjokolade B anthracis	5	
	Koffie sjokolade Botulinum	5	
	Pepperment sjokolade Aldikarb	3	
	Pepperment sjokolade Brodifakum	2	
	Pepperment sjokolade Katharidien	3	
	Pepperment sjokolade Sianied	3	
16.08.89	Vibrio cholera	6 bottels	
16.08.89	Kapsules Propan NaCN	7	
18.08.89	Formalien en Piridien	50ml x 30	
	Naadle 10cm x no 16	12	
05.09.89	Kantharidien - poeier in sakkie	100mg	
08.09.89	Metanol	3-30ml	
	Vibrio cholera	10 bottels	
08.09.89	Slange	2	
	Mamba toksien	1	
13.09.89	Digoksien	5mg	
18.09.89	Whiskey 50ml + colchicine	75mg	
06.10.89	B.melitensis c	1 x 50	
	S.typhimurium in deodorant	1	
11.10.89	Kulture vanaf briewe	2	
21.10.89	B.melitensis c		
	S.typhimurium in deodorant	1	

The following are (in alphabetical order) the items that Immelman made available to security force operators:

Aldicarb is a pesticide. Its white crystals have a slightly sulphurous odour. It is toxic. The probable oral lethal dose for humans is less than 5 milligram/kilogram (1/15th of a teaspoon for a 70-kilogram person). It is poisonous by ingestion and skin contact. Death is caused by muscle weakness, accumulation of fluids in the lungs, respiratory and heart failure, epileptic fits and coma. (RRL offered aldicarb dissolved in orange juice).

Anthrax/ Bacillus anthracis is a highly infectious and virulent micro-organism. Human infection in the natural state is usually through the skin but also follows after inhalation or ingestion. Inhaling B. anthracis spores (dormant form) may result in pulmonary anthrax, which is often fatal.

Anthrax of the lungs follows 2-5 days after exposure and is characterized by a mild initial phase of fever and malaise followed by sudden onset of severe acute illness with high fever. The lymph nodes in the chest become swollen and ulcerate, and these festering, bleeding ulcerations spread to other important organs in the chest. Respiratory distress develops, followed by cyanosis, shock, coma and death. Dr Mike Odendaal told the TRC and the court that he had put anthrax spores on cigarettes and on the gum of an envelope.

Azide (sodium azide, hydrazoic acid) salts are used industrially in the manufacture of explosives and preservatives. It is a cell poison causing death by a mechanism similar to that of cyanide. Sodium azide crystals are colourless and odourless.

Azide is poisonous by ingestion, inhalation and skin contact. According to Dr G. Muller, the medical expert who testified in the Basson trial,³⁰⁶ an individual who ingested 700-800 milligrams (1/6th of a teaspoon) died three days later as a result of failure to breathe. Death is caused by a fall in body temperature and blood pressure, respiratory failure, epileptic fits and coma. (RRL offered 3 doses of 1.5 grams of this substance mixed in whisky—well over a fatal dose. RRL research reports relate that this poison was tested on dogs, pigs and baboons.)³⁰⁷

Botulinum is a nerve poison produced by the micro-organism *Clostridium botulinum*. It is the most poisonous biological toxin known, about 1 million times more poisonous than arsenic. Ingestion in food causes progressive paralysis of nerves and voluntary muscles (from half an hour to

several days after ingestion) resulting in respiratory failure and death. (RRL offered 4 beer bottles contaminated with botulinum).

Brodifacoum is classified as a superwarfarin. It prevents the clotting of blood and is used in rat poison. It is an off-white powder. Poisonous by ingestion, it blocks the blood clotting cascade, causing bleeding for weeks to months. Bleeding starts 36-48 hours after ingestion. Death is caused by blood loss and brain haemorrhage.

According to an RRL report prepared by James Davies and André Immelman, this substance was tested on 8 blue-apes, who all bled to death, starting with their gums, over a 24-hour period. The researchers suggested that a larger group of primates be tested and other species be included in the experiment.³⁰⁸ RRL offered two peppermint chocolates contaminated with brodifacoum.

The pathogenic micro-organism **B. melitensis** causes the disease known as **brucellosis** (Malta Fever). This infectious disease is characterized by an acute fever stage and a chronic stage with relapses of fever, weakness, sweats and vague aches and pains recurring over months or years. A single dose is listed as having been given to a security force operator in October 1989.³⁰⁹

Cantharadin is a biological poison derived from blister beetle (Spanish fly). The crystals are colourless and odourless. As little as 10 milligrams of this toxin has been fatal. Systemic poisoning can develop after ingestion or by skin contact. Physical contact causes potent skin and mucous membrane irritation and blistering. Oral poisonous doses cause extensive organ damage characterized by a burning sensation of the mouth and throat, followed eventually by kidney and respiratory failure, shock and coma. (Immelman gave 70 milligrams, enough to kill 7 people, to a policeman in 1989).³¹⁰

Colchicine is an anti-inflammatory agent used in the management of severe gouty arthritis. It is a pale yellow nearly odourless substance which darkens on exposure to light. As little as 7 milligrams can cause death. Symptoms and signs of poisoning, 2 to 12 hours after ingestion, include severe nausea and vomiting, bleeding from the gut, and shock. This progresses to multiple organ failure, especially heart and respiratory failure, and bleeding tendencies. Death, which may occur 7-36 hours after

ingestion, is usually due to respiratory failure and cardiovascular collapse. (Immelman gave 75 milligrams of colchicine, enough to kill 10 people, hidden in whisky, to a policeman, in September 1989.)

Digoxin is a well-known drug classified as a cardiac glycoside. It is commonly used in the management of heart failure and abnormalities in heart rhythm. Digoxin powder is composed of odourless, white crystals.

The therapeutic dose is close to the lethal dose. The usual therapeutic dose ranges from 0.125 to 0.25 milligrams per day. Adult patients with normal hearts (those not on digoxin) rarely develop life-threatening poisoning with less than 5 milligrams in an acute ingestion. However, acute ingestion of 2 milligrams in patients on long-term digoxin therapy may result in potentially serious poisoning. Acute digoxin poisoning usually presents with nausea, vomiting, diarrhoea, abdominal pain, fatigue, delirium, hallucination and seizures. Death is caused by severe heart rhythm disturbances, resulting in heart failure and cardiac arrest. Immelman gave 5 milligrams away. (The State prosecutors allege that the intention was to use this to poison ANC leader Dullah Omar.³¹¹ Basson was acquitted on the charge of having been involved in this incident.)

The **mamba** is a dangerously venomous snake. The venom is a neurotoxin. Prodromal symptoms of neurotoxicity, including drowsiness, vomiting, hyper salivation, increased sweating, trembling, skeletal muscle fasciculation and circumoral sensation of pins and needles may appear within 5-10 minutes. More specific and classical neurotoxic symptoms and signs, which may develop within 30-120 minutes, include: blurred speech and difficulty in swallowing. Progressive respiratory muscle paralysis, leading to respiratory failure, is the most serious neurotoxic effect, usually developing within one to three hours and is usually the cause of death. (Immelman gave away an unspecified amount of mamba toxin.)³¹²

Mercuric oxycyanide is a white crystalline powder. It contains both mercury and cyanide. The clinical picture of acute organic mercury poisoning includes vomiting, a bloody diarrhoea, a profound circulatory collapse (shock) and kidney failure within 24 hours. (Immelman gave a man he knew only as "Koos", believed to have been a policeman, 4 grams of this poison.)³¹³

Methanol (wood alcohol) is a poisonous alcohol. It is an inherent cell poison. At room temperature it is a colourless liquid with a slight alcoholic odour. Methanol is converted in the human liver to formaldehyde and then to formic acid. It is these two metabolites, rather than the methanol, that are highly poisonous. If untreated, methanol poisoning can lead to visual changes, severe acidosis, kidney failure, coma and finally respiratory or heart failure and arrest. (Three doses of 30 millilitres are recorded on the RRL Sales list.)

Paraoxon is an organophosphate pesticide. It is a potent nerve poison which is poisonous by ingestion, by mucous membrane as well as skin contact. Probable oral lethal dose for humans may be as low as 1/50th of a teaspoon for a 70-kilograms person. One drop in the eye may be fatal. Death is caused by muscle weakness, accumulation of fluids in the lungs, respiratory and heart failure, epileptic fits and coma. (Ten doses of 2 millilitres, far more than what is needed to kill one adult, were made available by Immelman.)³¹⁴

Paraquat is a domestic and commercial herbicide. It is a potent cell poison causing multisystem organ failure and lung damage in fatal cases. Colourless to yellow salt, odourless to mild ammonia smell. An estimated lethal dose of the concentrated solution is 10-15 millilitres, and 1-2 grams of the salt. Ingestion causes chemical burning of the mouth and throat with ulceration. Severe paraquat poisoning may result in severe toxicity and death within 24 hours as a result of lung, heart, liver and kidney damage. Survivors usually develop progressive fibrosis (scarring) of the lung within 5-10 days after exposure. Patients eventually die of respiratory failure. Paraquat poisoning is almost always fatal. (RRL offered 75 millilitres of this poison in whisky, enough to kill 5 people.)

Phencyclidine (PCP) has become a drug of abuse since the 1970s. It is a standardised chemical warfare agent known as agent SN. It can be described as a psychedelic agent. It was originally developed as a general anaesthetic agent and its effects are similar to those of ketamine. It is a white crystalline powder, readily soluble in water and alcohol, with a bitter taste.

Catatonic posturing is produced, resembling that of schizophrenia. Abusers may appear to be reacting to hallucinations and exhibit hostile or dissociative behaviour. Severe psychological disturbance can be produced

by toxic doses. (Immelman gave 5 doses of 100 milligrams to psychologist Johnny Koortzen in 1989.)³¹⁵

Salmonella typhimurium and S. typhi are pathogenic micro-organisms which can cause various disease states, e.g. food poisoning and typhoid fever. Salmonella typhimurium patients usually present with vomiting, severe watery diarrhoea, colicky stomach pains, blood in the stools. Duration varies from 1 or 2 days to weeks or longer. (RRL offered 3 bottles of deodorant contaminated with this pathogen.)

Salmonella typhi is the cause of typhoid fever. The incubation period (3-25 days) related directly to the number of organisms ingested. Typhoid fever is a generalized infection causing fever, headache, chills, backache and nose bleeds. Stomach pains dominate, heart rate slows down and diarrhoea occurs late. Delirium and confusion are common. Complications include bleeding from the bowels. Bowel perforation is the most frequent fatal complication.

Sodium cyanide is a white solid which may be powder, granular, egg shaped or flake form. It is odourless when dry but may have the characteristic bitter almond odour when wet. The ability to detect this odour is genetically determined and 20 to 60 per cent of the population are unable to detect its presence.

The fatal dose of cyanide salts is estimated at 200-300 milligrams for an adult (1/25th of a teaspoon). Cyanide is absorbed by ingestion, inhalations, through eye and intact skin. Sodium cyanide exposure may produce death within minutes. Exposure to smaller amounts may produce nausea, vomiting, palpitations, confusion, rapid breathing and vertigo and dizziness. Fatal doses rapidly progress to agitation, seizures, accumulation of fluid in lungs, coma, respiratory arrest and death. (The Sales list records 50 capsules having been given to "Koos" in August 1989. Three peppermint chocolates contaminated with cyanide are offered by RRL.)³¹⁶

Thallium acetate is a thallium salt, used as an insecticides and rodenticide. Due to the toxicity of thallium salts these have been banned in many countries. Thallium is a cellular toxin causing cell death.

It is colourless, odourless and tasteless and extremely toxic. The lethal dose is 12 milligrams/kilogram of body weight based on animal data.

Thallium salts are well absorbed after ingestion, inhalation or skin contact. Symptoms of acute poisoning are usually delayed for 12 to 24 hours and may only reach their peak effect in the second or third week after exposure. This may lead to complete paralysis and death. Nerve damage may be permanent in survivors. (One gram of the substance is offered by RRL³¹⁷—enough to kill a large person.)

Vibrio cholerae is the causative organism of the disease known as cholera. Cholera is an acute infection involving the entire bowel. It is characterized by profuse watery diarrhoea, vomiting, muscular cramps, dehydration, kidney failure and collapse. Cholera can be a fulminant, rapidly lethal disease. The incubation period is 1-3 days. Children and the elderly are the first and most severely affected in a cholera outbreak. (32 bottles are offered by RRL—enough to affect the health of more than one community.)

Vitamin D (cholecalciferol) is one of the fat-soluble vitamins and is used as a rodenticide. It is a white, odourless crystalline salt. Daily ingestions in excess of 2000 international units in children or 1.88 milligrams in adults may produce toxic symptoms within weeks or months. Most of the acute toxic effects of Vitamin D overdose are due to a rise in blood calcium. In acute overdose, patients may present with nausea, vomiting, diarrhoea, headache, itching, weakness, peripheral nerve damage, depression, confusion, heart rhythm disturbances and myocardial infraction. Four grams are offered by RRL.³¹⁸

Other substances investigated at RRL, not on the Sales list, but allegedly used by the operators in some cases include:

Ketalar or **Ketamine** can be classified as a general anaesthetic. It is also a potent analgesic (pain reliever). It is commercially available as a solution, under the trade name Ketalar. Because ketamine can be given intramuscularly, it is relatively easy for a layperson to administer this drug. General anaesthesia is induced within 4 minutes after injection. (Bothma testified that he gave Theron Ketalar with which to anaesthetise the three men at Dukuduku before injecting them with muscle relaxants.³¹⁹ Theron testified to having used it more than once under similar circumstances.³²⁰)

Aluminium phosphide or **Phosphine** is used as a fumigant/rodenticide (for rats and moles). Upon contact with moisture, the pellets

release the poisonous gas phosphine. If ingested, phosphine is released from aluminium phosphide by action of the stomach fluids. Pure aluminium phosphide is a grey or yellowish salt. Phosphine is a colourless, flammable gas with a decaying fish or garlic-like odour.

It is highly toxic. The normal lethal dose in a 70-kilogram person is reported to be less than 500 milligrams. All patients who died had consumed 3 or more aluminium phosphide tablets. Inhalation of phosphine causes severe irritation of the airways, with cough, headache, tightness of the chest, coma, epileptic fits, heart failure and fluid on the lungs. Death can occur within 24 hours.

BZ (a-hydroxy-a-phenylbenzeneacetic acid, 1-azabicyclo[2.2.2]oct-3-yl ester, 3-quinuclidinyl benzilate). BZ is an incapacitating agent. Approximately 30 minutes after exposure to BZ aerosol, symptoms appear such as disorientation with visual and auditory hallucinations. The symptoms peak in four to eight hours, and may take up to four days to pass. Other symptoms can include distended pupils, dry mouth, and increased body temperature. The action of BZ on the central and peripheral nervous systems resembles that of atropine. Like atropine, BZ binds to muscarinic acetylcholine receptors.³²¹

RRL microbiologist, Adriaan Botha told the authors that he worked with the additional following organisms, which were part of the RRL culture collection (maintained by Odendaal and Botha):³²²

Escherichia coli. This was used in the cloning of the *Clostridium perfringens* epsilon toxin gene for vaccine development purposes. Although Botha's intention was to produce a vaccine as a result of this work, he was aware of its potential military application. If the cloned gene could be placed in *E. coli* it would have been able to produce the deadly toxin at a far higher rate than the *Clostridium* would have been able to do.³²³

Clostridium perfringens. The cloning of the epsilon toxin gene for introduction into *Escherichia coli* for vaccine development purposes.³²⁴

Flavobacterium sp* and *Pseudomonas sp. Both used in the development of a method for detoxification of organophosphorus compounds for both defensive and commercial purposes.³²⁵

Hormoconis resinae. This organism can grow in diesel and aviation fuel leading to problems such as engine problems in tanks and ships as a result of clogged fuel lines. It is suspected that this organism had caused several airplane crashes. Botha was investigating this organism for both defensive and offensive purposes.³²⁶

Included in the RRL culture collection were the following micro-organisms:

Shigella flexneri
 Salmonella typhimurium
 Salmonella typhi
 Yersinia enterocolitica
 Escherichia coli H157
 Vibrio parahaemolyticus
 Escherichia coli EP
 Brucella melitensis
 Brucella abortus (terminates pregnancy in cows)
 Bacillus anthracis

(The above list of pathogens was taken from the culture collection, these organisms were grown and freeze-dried in 10 millilitres and 25 millilitres quantities which contained a high concentration of the organisms.)³²⁷

**Dosage and suspected use of RRL products
 offered on the Verkope list³²⁸**

Item	Number of doses offered	Is evidence of use available
Chemical agents		
Phencyclidine	5 x 100 mg doses	No information available.
Alidcarb	6 x 200 mg doses in orange juice and 3 peppermint chocolates contaminated.	No information available.

Azide	3 x 1,5 g doses in whisky and 4 g.	No information available.
Paraoxon	10 x 2 ml doses.	No information available. Evidence before the court in The State vs Wouter Basson suggested that Rev. Frank Chikane may have suffered from paraoxon poisoning ³²⁹ but this was not proved.
Vitamin D	2 doses of 2 g each.	No information available.
Thallium acetate	1 g—sufficient for a fatal dose for two small people or one large person. Five bottles of beer were contaminated with thallium.	No information available.
Aluminium phosphide	30 tablets.	No information available.
Sodium cyanide	64 capsules and three peppermint chocolates.	No information available.
Paraquat	1 x 75 ml dose in whisky.	No information available.
Mercuric oxycyanide	4 g.	No information available.
Digoxin	1 x 5 mg dose.	According to the evidence of CCB operator Abram (Slang) Van Zyl it was the intention of the CCB to murder ANC leader, Dullah Omar by tampering with his art medication. ³³⁰ It was not proved that the digoxin on the Sales list was used for this purpose.
Colchicine	75 mg—10 fatal doses.	No information available.

Cantharadine	170 mg—enough for fatal doses for 17 people and three peppermint chocolates contaminated.	No information available.
Biological agents		
Anthrax	1 envelope, the gum of which was contaminated with anthrax spores, 5 cigarettes contaminated, 5 coffee chocolates contaminated. (An unknown number flasks in 10 ml and 25 ml volumes containing freeze-dried anthrax spores were prepared and stored at RRL.)	No information available.
Botulinum	4 bottles of beer contaminated with botulinum toxin and five coffee chocolates were contaminated.	No information available.
Salmonella typhimurium	200 g of sugar contaminated with salmonella. Two bottles of deodorant contaminated with Salmonella typhimurium.	Dr Mike Odendaal testified that he was responsible for the contamination of the sugar with salmonella he had been told that the sugar had been used at an ANC meeting in Soweto and that people attending the meeting had subsequently become ill. ³³¹ It was not proved that this was in fact the case. No information is available regarding the use of the deodorant.

Vibrio cholera	32 bottles	According to the evidence of CCB operator, Pieter Botes, a bottle of Vibrio Cholera was given to him. He instructed one of the officers under his command to contaminate the water supply of a SWAPO camp in 1989. The water was chlorinated and the cholera had no effect on the residents of the camp. ³³² No information is available regarding the use of the remaining 31 bottles.
B. melitensis	2 doses.	No information available.

In 1987 there was discussion amongst RRL management about a planned upgrade of the RRL facility. Microbiologist, Dr Mike Odendaal, said that consultants from a prominent United Kingdom-based chemical engineering company, were appointed to develop plans for the upgraded facilities at RRL. He said the consultants claimed to have done work at Porton Down and done work in Russia³³³ which equipped them to build the facilities required by RRL. The planned upgrades were to include a 300-litre fermentor the intention being to produce aflatoxins, T2-toxin (both mycotoxins) and “yellow rain”.³³⁴ Other biological agents mentioned for production at the upgraded plant were: anthrax, brucella, salmonella, botulinum and tetanus. Freeze-drying and storage facilities were also included in the plan. The upgraded facilities were to be built at the RRL site and would have incorporated the older laboratories.

In 1989, according to Odendaal, it was decided by Swanepoel³³⁵ that the planned upgrade would not go ahead since there were insufficient funds available. The plan to upgrade the facility indicates that there was an intention to develop RRL’s ability to produce biological warfare agents on a larger scale.

All the evidence indicates that the scientific management of RRL under Wynand Swanepoel was weak. The organisation began to experience problems related to bad inter-personal relations and the scientists lacked direction. Swanepoel a former member of the Special Operations Unit and a dentist by profession, told the TRC that he had no knowledge of the scientific work conducted at the front company and concerned himself only with administrative tasks.³³⁶ Scientists who worked there were under the impression that Swanepoel was more concerned about the interior decoration of his office than he was about the work done.

In 1991 Roodeplaat Research Laboratories was privatized through an arrangement that saw RRL's top management receiving generous payouts. Swanepoel admitted to the TRC that for an investment of R50,000 in RRL shares around 1989, he had received a payment of R4 million for his shares when the company was privatised.³³⁷ Although Basson was charged by the State for fraud for his involvement in the privatisation scheme, from which the State alleged he had personally benefited, the Judge found Basson not guilty. One of RRL's primary foci was research and development of lethal chemical and biological agents which were untraceable post-mortem. Testimony from scientists and RRL documents was that they believed that the substances were to be used in covert operations to assassinate individuals.

The total cost of RRL to Project Coast, as audited, amounted to R98,432,657. This figure includes the cost of building the facility, total running costs and the payment made by the SADF when it was privatised. The only annual figures available show the running costs of the company for the financial years 1987/8 and 1988/9. In the financial year 1987/8 about R3 million was spent. The following year the costs had more than tripled to R11 million.³³⁸

The South African submission of December 1993, to the BTWC, in terms of Confidence Building Measure (CBM) F: Declaration of Past Activities, states that there was no offensive biological research and development programme to declare. It refers to two past defensive biological research and development programmes: Programme 1 in 1990 and Programme 2 in 1992. With regard to the 1990 programme it is said that "a selected number of organisms were produced to study the detection methods as well as other protection methods, for example clothing and masks". With regard to the 1992 programme it is said that "area research

was conducted in the production of micro-organisms that produce parathion-hydrolases".³³⁹ The 1995 submission to the BTWC repeats the claim that there was no past offensive biological research and development programme to declare; however, it goes further than the 1993 submission, stating that a past defensive biological research and development programme took place between 1987 and 1992. This submission states that *Clostridium perfringens* types D and C were worked on with the view to countering "the potential hazard created by genetic engineering and the effect it may have had on own protection and treatment".³⁴⁰

The CBM states that organisms and toxins as well as modified bacteria were studied with the view to developing detection techniques. The list of organisms allegedly studied for this purpose is given as including "B.anthraxis, Yersinia pestis, Vibrio cholera, Francisella tularensis, Yellow fever, Venezuelan equine encephalitis, T 2 mycotoxin".³⁴¹ These statements cannot be reconciled with the evidence of the scientists during the Basson trial, nor with documentation before the TRC. No work was ever done at RRL on viruses, despite media claims to the contrary and the CBM raises the question as to whether another facility was involved in defensive BW research. RRL had neither the facilities nor the expertise to work with viruses.

Claims have been made that the United States Centers for Disease Control (CDC) shipped dangerous viruses to Basson.³⁴² CDC did send viruses to South Africa but they went to the National Virology Institute. The Director of the Institute, Dr Robert Swanepoel, is a world expert on Rift Valley Fever and his work had no connection with biological warfare³⁴³ and was conducted openly.

THE PRIVATE COMPANIES

In 1986, at the same time that Goosen was replaced by Swanepoel at RRL, Jan Lourens left the Special Operations Unit to start a private company called Systems Research and Development (SRD). SRD started in Lourens' garage and only later moved to its own site. SRD had four components:³⁴⁴

Phoenix Service Station, a garage near the Special Forces Headquarters that could service the Nissan Skylines which Lourens had modified when he was a member of Special Operations. They made them faster and installed radio equipment in the cars.³⁴⁵

SRD Electronics, a laboratory that took on chemical defence projects and which provided Basson with an electronic surveillance and counter-surveillance capacity, at his request.³⁴⁶

QB Labs, a company which did mechanical work. The company's main product was the packing of new generation teargas into hand-held spray devices for the South African Police, but other projects were also. Bart Hetteema was in charge of the aerosol programme and liaised closely with Lothar Neethling in this regard.³⁴⁷

In about 1987 QB Labs began producing covert assassination weapons with the assistance of former Rhodesian and ex-EMLC machinist, Philip Morgan. Morgan manufactured the assassination weapons designed by Lourens. The weapons included³⁴⁸:

- Signet rings topped with a coin, covering a small chamber which could contain a powder;³⁴⁹
- Spoon-like blades that would contain a chemical in a cavity. One was a cigarette box from which a sharpened spoon would spring. The spoon contained poison which would enter the victim's body. These spoon weapons were for use in prison where spoon stabbings are commonplace. About seven were manufactured at QB Labs. The

intention was that a fight would be provoked, a prisoner would be stabbed, and it would appear as if the fatal injury was the result of a prison brawl;³⁵⁰

- Screwdrivers with a syringe-like mechanism in the handle. A stab with the screwdriver would cause a liquid poison to be ejected. Between 30 and 40 of these were made;³⁵¹
- Needled units operating on the same principle as the screwdrivers. Needles would emerge from the front of a tube. This mechanism was apparently not successful because it was too slow;³⁵²
- Needled unit in bicycle pump;³⁵³
- Umbrellas and walking sticks. These devices shot out a 3-millimetre diameter polycarbonate ball. Holes in the ball were intended to be filled with a poison. When the ball was shot into the victim's leg, it would cause a stinging sensation like a bee sting. The autopsy would not reveal the cause of death since polycarbonate is not revealed on X-rays. These were intended for assassinations in Europe or the United Kingdom. Lourens purchased the walking sticks and the umbrellas during one of his trips abroad. He speculated that the balls could have been packed with chemicals at Delta G or at RRL.³⁵⁴

Lourens told the authors that in 1988 or 1989, as a favour to Basson he undertook a trip to England to hand over an umbrella weapon and poison to CCB agent Trevor Floyd. Lourens was given two glass ampoules of colourless, watery liquid by Philip Mijburgh which he wrapped in tissue paper and sealed plastic bags.³⁵⁵

He testified in the trial that he met Floyd as arranged, at a railway station in Ascot, and they proceeded to a cottage in Warfield. While demonstrating the operation of the screwdriver to Floyd, Lourens got a minute amount of the poison on his hand and without thinking, wiped his lips. When he tasted a bitter taste, he realised what had happened. He could not remember much about what happened next, but said he suffered vision impairment, began shivering and briefly lost consciousness. He drank some milk and Dettol which he found in the bathroom, and went to lie down. After about two hours he recovered. The prosecutors in the Basson trial believed that the poison may have been phenyl silitrane. Floyd's targets were high ranking ANC members in exile, Ronnie Kasrils and Pallo Jordan.³⁵⁶

Basson was charged with conspiracy to murder Kasrils and Jordan for his alleged role in the incident, a charge that was dropped before the trial began when the Judge ruled that it was not within the courts jurisdiction to find on an incident which took place outside the borders of the country. Nevertheless Floyd and Lourens were allowed to testify about the incident. Basson testified that he had no knowledge of Floyd's London mission but admitted that phenyl silitrane was made at Delta G on his instructions.³⁵⁷

Lourens said that he and Basson discussed the special apparatuses made by SRD more than once; the last time while they were travelling in a British train together. Lourens was wrestling with his own conscience about the morality of the work he was engaged in. He told Basson, who responded "sort it out with your God—I have".³⁵⁸

In 1988 the relationship between Basson and Lourens broke down.³⁵⁹ Evidence presented in the Basson trial showed that Lourens's wife Antoinette, who worked for Infladel, travelled frequently with Basson and was named as director of some companies in which Basson is said to have had an interest. Lourens and his wife divorced and she later married Deon Erasmus, an ex-member of the Special Operations Unit.

The falling out of the two men had an impact on the SRD company structure. It was decided that Lourens would focus on the protective aspects of CBW defence through the establishment of a new company, Protechnik. In 1987 Johnny Koortzen, a psychologist working with Basson at 7 Medical Battalion, took over the running of QB Labs, SRD Electronics, and Phoenix Service Station.³⁶⁰ Before Koortzen took over the management of SRD, Lourens had owned 20 per cent of the shares. The other 80 per cent was owned by a company called WPW Investments. Lourens had been told by Basson that WPW were foreign investors whose local representative was Wynand Swanepoel. Basson allegedly told Lourens that WPW was owned by a German businessman, Hubert Blücher. Evidence gathered by forensic auditor, Hennie Bruwer and supported by the testimony of United States attorney David Webster during Basson's trial, show that Basson was the sole owner of this group of companies, established in the Cayman Islands in 1986.³⁶¹ Basson contested this, stating in court that WPW was owned by his foreign principles. He named Blücher as one of these principals.³⁶² The State's case rested on the court accepting the evidence that Basson was the beneficial owner of the WPW group of companies. Many of the fraud charges against Basson were, however, dropped when the Judge found the

testimony of Webster to be unreliable and found that the WPW Group of companies had operated to the benefit of the Defence Force. This finding was based on the Judge's view that Project Coast was a success.³⁶³

Protechnik shareholders also included foreigners. Lourens owned between 20 and 25 per cent of the shares in Protechnik whilst Charburn, a Luxembourg-based company, owned the balance. Charburn sold some of its shares to Medchem—a company owned by Philip Mijburgh. Two Belgian citizens, Charles van Remoortere, who resided in South Africa, and Bernard Zimmer, who resided in Luxembourg, owned Charburn. These two men and their companies, ABC Import, YCVM cc; Technotech, Charburn and Hazmat,³⁶⁴ played an important role in the development of protective clothing for the SADF. They also made foreign bank accounts available to Basson for the covert transfer of funds.³⁶⁵

Research at Protechnik was originally financed by the South African Medical Services (a division of the SADF) and later by Armscor.³⁶⁶ The SAMS Chemical Warfare Defence budget was channelled through Armscor which established the Defence and Research Council (VNOR). All research was documented.³⁶⁷

Protechnik manufactured small amounts of conventional warfare chemicals to be used for the testing of protective clothing. The company apparently made advances in filter breakthrough times, notably of a new-era substance known as PFIB, which would break through a filter in a very short period of time. Chemical warfare agents are still³⁶⁸ manufactured at Protechnik for testing purposes.

Although Protechnik was dedicated to the testing of protective clothing and equipment, Lourens told the TRC that the company had been approached at one point by a foreigner with a request to produce a prototype binary weapon:

"I interfaced on three occasions with weapons systems or potential weapons systems for foreign entities, individuals. The first case it was my partner at the time in Protechnik, Charles van Remoortere, had a potential customer. I know him as Mr Mombar and he wanted a binary weapon developed. A binary weapon is a weapon with two chemicals that would be separated... once you fire this, the two chemicals would mix by whatever mechanism... and as the shell explodes it delivers the

toxic substance. So we worked on this concept in actually developing the shell and the two chemicals, it's a substance called VX, a nerve agent. It's a binary nerve agent. The unit was given to Charles, I left, and as far as I know the programme never went anywhere".³⁶⁹

The similarity between the name provided by Lourens and that of convicted chemical arms dealer, Israeli citizen, Nahum Manbar, is striking. In 1999 Manbar was found guilty by a Tel Aviv district court of "aiding an enemy state with intent to harm Israel's security, by having sold chemical weapons (sic) related materials to Iran". The 80-page judgement says: "He played a double game, supplying the Iranians with components for weapons of mass destruction, while deliberately misleading the Shin Bet regarding his business deals".³⁷⁰ Manbar has appealed his 16-year jail sentence. Details of the appeal were not available at the time of going to print.³⁷¹

Lourens said that the weapon was never delivered, although the dealer was shown the prototype. He said he had never reported the discussion to any military structures³⁷² because this was a difficult and confusing time for him. This incident demonstrates the lack of control the military had over an ostensibly defensive facility—it would have been relatively easy for Protechnik to have become involved in the development of weapons.

In 1993 van Remoortere was informed that Medchem, the holding company of Protechnik (in which WPW Inc. had a 50 per cent interest), intended selling the company. Van Remoortere owned two companies involved in the trade and testing of protective clothing, both of which were dependent on Protechnik for contracts. He either had to purchase Protechnik himself or stand to lose a great deal of money. He understood that the credibility of the testing process could be called into question if the same person owned the company which provided the protective clothing and the company which tested it. He believed it was inappropriate for a foreigner to control the manufacture of defensive items for the South African military. He therefore approached Gen. Knobel and Armscor, and asked that the military purchase the company. When no immediate answer was forthcoming, van Remoortere went ahead with the purchase. He then began lobbying the Surgeon-General again. In September 1994, a year later, the facility was purchased by Armscor.³⁷³ Between 1988 and 1993 Protechnik's SADF contracts, paid from Project Coast funds, amounted to just over R10 million.³⁷⁴

Protechnik is currently classified as the only South African single small-scale facility under the Chemical Weapons Convention, and is therefore subject to regular international inspections by the Organisation for the Prevention of Chemical Weapons (OPCW).³⁷⁵

In 1986, Dr Brian Davey was a medical doctor conscripted to the Defence Force. He joined 7 Medical Battalion under Basson's command. Soon afterwards he was instructed by Basson to develop chemical defence procedures to be followed in the event of a chemical attack. He was also instructed to design training courses for medical staff and soldiers. Before Davey set these up in 1988 (the research and development process having taken two years), the Defence Force had no detailed procedures or doctrines for CBW defence.³⁷⁶

During the process of investigating these defensive strategies, Davey realised the protective suits designed for use in the cooler northern hemisphere were inappropriate for use in African conditions. Until 1988 he had conducted his research work on the ergonomic problems of protective clothing at the CSIR. At 7 Medical Battalion he realised that he needed more extensive facilities, where multidisciplinary physiological testing could be conducted. He discussed the matter with Basson who agreed that upgraded facilities were necessary. He told Davey that he doubted if the SADF would establish such a facility itself, but would be prepared to contract to a financially independent company. He put Davey in touch with a finance company, WPW, represented by Tjaard Viljoen.

Davey, Koortzen and Deon Erasmus (also from 7 Medical Battalion) drew up a business plan and received SADF contracts. This was how Lifestyle Management came into being, testing the suitability of NBC protective clothing in Southern African conditions. In the non-military field, the company was active in the area of occupational health and fitness promotion. There is no evidence to suggest that Davey knew about the offensive aspects of the chemical and biological warfare programme.

Forensic auditor Hennie Bruwer says that in 1990 Medchem Consolidated Investments was a 50 per cent shareholder in Lifestyle Management and wholly owned the property where the company operated. The percentage of Medchem's interest in the company changed over time. Through Medchem, WPW also had an interest in the company. The auditor's report also shows that Lifestyle Management's SADF

contracts, paid from Project Coast funds, amounted to some R8 million between 1989 and 1993.³⁷⁷

By the early 1990s, South African involvement in the war in Angola had diminished, and so the amount of work being contracted in the protective clothing field significantly decreased. As Lifestyle Management had identified organisational health as its strategic business direction, Davey resigned from the company in 1992 to pursue his personal interests in chemical defence and disarmament, as an independent consultant to the Surgeon-General, government ministries, and companies involved in that field.³⁷⁸

In 1986, at the same time that Davey was instructed to develop a defensive training programme, Rudolf Louw, a member of the Army's Directorate Projects, was instructed to carry out a project study on nuclear, chemical and biological warfare for the Army. Based on his findings, the SADF decided that he should not pursue the nuclear component, that the biological component would be the responsibility of SAMS; and that the Army would assume responsibility for the chemical component. Louw was appointed Project Officer for Project Academic, the Army's own defensive chemical warfare programme.³⁷⁹ This project later covered CBW defence acquisition for all branches of the military.

It is likely that this renewed interest in chemical defence in 1986 was sparked by Heyndrickx's visits to Angola in the same year, when he concluded that chemical weapons had been used against UNITA forces. The fact that this came five years after the initiation Project Coast indicates that the external threat perception used as a justification for the initiation of Coast was not genuine. According to Louw, the need for defensive CBW equipment escalated, because of the possibility of chemical attack on SADF troops during Operations Modular, Hooper and Packer in Angola.³⁸⁰

A 1988 memo from Brigadier Anthony Savides, Director of Army projects, gave notice to 23 colonels and brigadiers—including Brigadier W. Basson, and senior Armscor managers that a briefing was to be held on March 30 on defensive CBW.³⁸¹ According to the memo, the Defence High Command had ordered that acquisition of defensive CBW equipment should proceed in order to make certain operational units battle-ready. The briefing included what equipment was being bought, what additional equipment should be acquired, which units needed equipment, and in

what quantities. Training in the use of the equipment was to be arranged jointly by Directorate Training and Directorate Operations (SAMS). Directorate Operations was to compile an operational doctrine/policy for CBW as soon as possible, which was also to be applicable to Project Academic.

The memo states that the physiological aspects of CBW equipment on personnel were to be identified and proposals made. Louw said that he had no direct knowledge of Project Coast, even though he had previously been involved in various CR projects—Muly, Keyboard, Koma and Kea. Savides explained to the authors that this was not strange, because an acquisition project such as Academic would have been subject to normal scrutiny and accounting and could not have been linked to a sensitive project such as Coast.³⁸² As Project Officer of Academic, Louw consulted Basson, using him as a mentor and adviser.³⁸³ Gen. Knobel was briefed occasionally on the progress of Academic.

On October 3, 1989, Louw furnished Armscor with a list of 60 items in the defensive CBW arsenal.³⁸⁴ The list is comprehensive, ranging from Atropine auto-injectors, ponchos and decontamination chemicals to computers for hazard prediction (with software) to nutria NBC suits. All equipment was supplied by Technotech.³⁸⁵ From September 1988 to January 1996, Louw was seconded to Armscor, while continuing to manage both Academic and Project Galvanise. Galvanise, funded by the Defence Research Council, did research into chemical and biological defence.³⁸⁶ A letter dated November 10, 1990, from Louw to Savides deals with the impact of the proposed shutting down of Academic, Galvanise and various related projects. It notes that since April 1, no funds had been budgeted for Academic, and that the SADF was considering closure of Galvanise “because no (CBW) threat is envisaged”.³⁸⁷ Louw said the SADF was engaged in widespread cutbacks at the time, and all existing projects had to be re-motivated because the chemical and conventional threat had reduced significantly. Project Academic was officially closed on 31 March 1990. No documents or testimony indicate that a similar process was followed with regard to Project Coast. It would appear that Project Coast was not required to re-motivate its budget on the basis of the reduced threat.

Charles van Remoortere came to South Africa in 1983 to set up a factory for the Belgian company Syntex, near Port Elizabeth. The company

was to produce a plastic-coated fabric. Van Remoortere and his Belgian associate, Jean Pierre Seynaeve, agreed that he should try to sell other Syntex products to the South African military, including NBC protective clothing.³⁸⁸

To this end van Remoortere met with Lothar Neethling of the police and visited the Department of Special Requirements at Armscor.³⁸⁹ Initially he met with little success in trying to sell his products. Then one day Basson arrived at the factory and expressed an interest in van Remoortere's products. He explained that "the Russians" were using Angola as a live testing ground". Van Remoortere spoke to his associate in Belgium and to his father who had been a colonel in the Belgian army. He also spoke to the Surgeon-General who assured him that the project he would be supplying was only defensive in nature.³⁹⁰

To convince van Remoortere that the threat against South African troops was real, Basson and Neethling took him and Seynaeve to Jamba in Angola where they were shown UNITA patients in a hospital and were told that these were the victims of chemical attacks. Van Remoortere and Seynaeve established a good relationship with both Basson and Neethling. Neethling shared Seynaeve's interest in weapons and they went on hunting trips to South West Africa together.³⁹¹

Van Remoortere introduced Basson to his Luxembourg-based friend, Bernard Zimmer, a management and financial consultant. Basson gave Zimmer a business card on which he was identified as a physician and cardiologist. Van Remoortere already had a personal bank account in Luxembourg (opened May, 1979) which was managed by Zimmer. Some time after their first meeting, Basson asked to use the Van Remoortere account and Zimmer was granted signing powers on it from December, 1986.³⁹²

This account, known as the "Barcelona account", became increasingly active after this date, with all transactions through it being initiated by Basson. Van Remoortere played no further role in the running of the account and all instructions regarding it were issued to Zimmer by Basson. Zimmer ran the account exclusively on Basson's behalf and made no payments from it without his prior instructions. At the same time, Basson instructed Zimmer to set up another holding company, Luft, registered in Luxembourg. Subsidiary companies followed—Biskara, registered in

England as a “trading” company (according to Zimmer, it did very little business); General Golf Investments, which was to invest in golf resorts; and Genavco, set up in December 1993 with the sole purpose of buying and running the Jetstar aircraft Basson was to purchase.³⁹³

Van Remoortere’s company Technotech was established in November 1988. Its main function was to provide the SADF with protective clothing for the CBW programme which it manufactured from material purchased from Syntex.³⁹⁴ Some of the deals conducted between this company and Basson were the basis of fraud charges against Basson. Basson contested these charges and was found not guilty by the Judge. Between 1990 and 1993 Technotech received just over R49 million for NBC suits from Project Coast funds. According to Bruwer’s report, Technotech was equally owned by Zimmer, van Remoortere and WPW Investments.³⁹⁵

Another private company established to provide services to Project Coast was Intramex. This company was wholly owned by WPW Investments Inc based in the Cayman Islands.³⁹⁶ At the end of 1992 the Office for Serious Economic Offences asked Gen. Knobel to provide answers to questions about the management of Project Coast. Knobel had to turn to Basson for many of the answers, including the purpose of Intramex. Basson answered as follows:

“With the escalation of the war in Angola in 1987 and the accompanying threat there was a need in the SA Army for certain offensive and defensive equipment. At this stage the technology and products were only available from companies that had been or were fronts (e.g. Delta G Scientific) or private companies that developed specific technology for Project Coast. With regard to companies in both these categories there was a clear order from the CMC that these sources of technology could not be made known. It was therefore decided that the above mentioned products (in the case of Delta G—new generation teargas) would be bought by the Army through Armscor which would receive money for this purpose from the Army. Project Coast finances were not used for this production. Seeing that Armscor was not meant to have known about the source of the new generation teargas, a front company was established which would purchase this substance from Delta G and sell it to Armscor. Only costs relating to the running of the front and the physical handling of the substance delivered were added to the price at which Delta G delivered it”.³⁹⁷

Basson went on to explain that the CMC had authorised Tjaard Viljoen to manage the company.³⁹⁸ Viljoen's wife and Patricia Leeson (Lothar Neethling's niece) had worked for the company. Basson explained how he came to be a director of the company in early 1990 after Viljoen became ill and was hospitalised.³⁹⁹ Basson's explanations implied that it was not possible for the one arm of the military to supply another arm of the same military with necessary substances.

The budgets of Project Coast present an interesting picture of a project concerned with offensive development late into the 1990s, after the closure of the defensive programme, Galvanise. The approved annual budget for the period April 1991 to March 1992 is for an amount of R65,815,550. This included an amount of R14,000,000 for chemical research, R10,538,440 for biological research and R4,750,092 for defensive and material research. A total of R27,115,500 was budgeted for defensive equipment (gas masks and protective clothing) and R1,000,000 for "own CBW operations".⁴⁰⁰

The budget for the period April 1992 to March 1993 is some R20 million less. In this budget a total of R7.75 million is made available for research, most of which is dedicated to defensive and material research and physiological research. R2.05 million is made available for "own CBW operations" which remain undefined.⁴⁰¹

A list of outstanding contracts shows that between July 1992 and the end of March 1994, R9,835,000 was made available for "offensive chemical research", and an amount of R87,500 per month for Swartklip Products. The latter amount would have been for the production of weaponized CR.⁴⁰²

Auditor Hennie Bruwer's findings are that from April 1, 1983 to February 28, 1992, R418.2 million was allocated to Project Coast. From March 1, 1987 to February 28, 1993, the period covered by the indictment, the project had access to R340.9 million, of which, it is alleged, R37 million was misappropriated.⁴⁰³ The Judge found, on the basis of Basson's testimony regarding the purchase of chemicals (BZ methaqualone and cocaine) and equipment (a peptide synthesiser amongst other things) that Bruwer had followed the wrong money and had been misled by the paper trail that had been purposely laid to hide Project Coast's transactions.

The bulk of Coast funding was spent on the establishment and privatisation of Delta G Scientific (R 127.4 million) and Roodeplaat Research Laboratories (R 98.4 million) while R66 million was spent on NBC suits, money which came from the Special Defence Account. Other expenditure was: R10.6 million to Protechnik (March 1988-February 1993), R8 million to Lifestyle Management (March 1989-February 1993), R1.4 million to Data Image (March 1991-February 1993) and R634,383 to Organochem (March 1992-February 1993). In the 1992/93 financial year, R1.9 million was paid to Aeromed for charter flights.⁴⁰⁴ WPW or Medchem Consolidated Investments, companies in which Basson was listed as a director, had interests in all the service companies.

THE DE KLERK YEARS (1989-1993) AND THE USE OF CBW AGENTS

By 1988 Delta G Scientific was well established in its Midrand facility and RRL was operational. Both companies were under new management of men close to Basson, Philip Mijburgh at Delta G and Wynand Swanepoel at RRL.⁴⁰⁵ The internal war in South Africa was still raging. In August 1988 Vlakplaas hit squad commander, Eugene de Kock, was instructed by his commanding officer, on orders from P.W. Botha, to bomb Cosatu House, headquarters of the trade union federation.⁴⁰⁶ Later that year he was instructed to destroy Khotso House, home of the South African Council of Churches. According to the testimony of the former Minister of Police before the Truth Commission, the instruction for this too came from P.W. Botha.⁴⁰⁷ In October, de Kock was instructed to set fire to Khanya House where the South African Bishops Conference had its offices.⁴⁰⁸ South Africa was still providing covert support to UNITA forces in Angola.⁴⁰⁹

In 1989, F.W. De Klerk replaced P.W. Botha as President. Although De Klerk was signalling political changes, security police and covert military units continued operating as before, in fact, between 1990 and 1994 the levels of political violence were higher than ever before. A war was being fought on the streets of Transvaal townships, in KwaZulu Natal, in Cape townships and in the rural areas of the Eastern Cape. In February 1989 a police brigadier attended a meeting to plan the murder of 17 ANC members who the police believed would be leaving the country to attend a meeting in Swaziland. The result was the murder of three South African National Students Congress members.⁴¹⁰ During that year cross border raids were still being planned. The security forces concentrated their attention on Namibia, about to hold its first democratic election. The Civil Co-operation Bureau planned and carried out an operation to murder SWAPO leader Anton Lubowski in September 1989.⁴¹¹

CCB operative Pieter Botes testified in the Basson trial. He said that in August 1989, he was given four brown glass jars by CCB commander Joe

Verster and told that two contained cholera bacteria, the others yellow fever. Botes' account was that he proceeded to Namibia to identify opportunities for anti-SWAPO operations. Once there, he received the order from Verster to contaminate the water supply at two refugee camps outside Windhoek with cholera and yellow fever. Botes said that he gave the bottles to two of his operators, Charlie Krause and José Daniels. Botes said he was not convinced the cholera plan would work, since he had established that the water in the camp reservoir was from the municipal supply and thus chlorinated. Krause and Daniels in due course reported they had polluted the water, and returned the empty containers to Botes, who destroyed them.⁴¹²

In February 1990, De Klerk announced the unbanning of political movements and the release of Nelson Mandela and other political prisoners. However, De Klerk made it clear that he was strongly opposed to black majority rule and warned that: "There could be no winner takes all system, but a power sharing one. Don't expect me to negotiate myself out of power".⁴¹³ On the part of the ANC, there was a realisation that the armed struggle was just one of several ways to bring about political change in South Africa. In the words of Nelson Mandela: "It was clear to me that military victory was a distant if not impossible dream. It simply did not make sense for both sides to lose thousands if not millions of lives in a conflict that was unnecessary".⁴¹⁴ It was increasingly evident to both the white government and the ANC that the only possible option was political settlement.

The revelations in the media about hit squad activities in 1990 led De Klerk to appoint Justice Louis Harms to head a commission of inquiry into: "certain alleged murders". The Commission began hearing evidence on 5 March 1990. At the end of the hearings, Harms linked the CCB to crimes of violence, but the allegations did not lead to prosecutions. Harms had allowed CCB members to testify in disguise and using false names. He failed to find any wrongdoing on the part of the security police, a finding which hit squad commander, Eugene De Kock, was to find laughable.⁴¹⁵ The Harms Commission was severely criticised by the press and by anti-apartheid groups for failing to reveal anything approaching the extent of hit squad activity.

At the same time as unbanning the ANC and other liberation movement organisations, De Klerk set about "reclaiming civilian control of

the state”.⁴¹⁶ He replaced Magnus Malan with a civilian, Roelf Meyer, as Minister of Defence. Adriaan Vlok was replaced by Kobie Coetsee as Minister of Law and Order. But behind this façade of political change, the security forces continued operating much as they had under P.W. Botha. Politically motivated murders and disappearances continued, and even grew in number. In KwaZulu Natal, the Inkatha Freedom Party was being provided with weapons by the security police to support them in their fight against the ANC. In October 1991, in the face of struggling political negotiations, Justice Richard Goldstone was appointed to head the Goldstone Commission of Inquiry Regarding the Prevention of Public Violence and Intimidation. Goldstone uncovered much of the hit squad activities of the security police.⁴¹⁷ Major revelations on the role of covert military units in the ongoing violence emerged after the Goldstone unit raided the offices of the Directorate of Covert Collection in November 1992. Subsequent investigations revealed ongoing security force operations against the ANC.⁴¹⁸

In January 1991, Mandela called for “an all-party congress” to start negotiating for a constituent assembly. On 20 December 1991 delegates from 19 political parties met at the Convention for a Democratic South Africa to begin negotiating the political future of South Africa.⁴¹⁹ Despite disagreements on a number of issues, the parties agreed to a date for the first democratic elections and the establishment of a constitution-making body.⁴²⁰ Later, on 27 April 1994, the first ever-democratic elections in South Africa were held and the ANC emerged victorious with 62 per cent of the total vote and 252 seats in the National Assembly.⁴²¹

In November 1992 Gen. Pierre Steyn was appointed to head a commission⁴²² “on alleged dangerous activities of SADF components”. A month later, he verbally delivered his report to De Klerk. This resulted in De Klerk ordering 23 military officers, including Wouter Basson, to take early retirement. Steyn’s investigation had found that “to a great extent some members of the senior command structure [of the SADF] are trapped in the momentum of activities of the past”, and said that “it cannot be ruled out that other members might be furthering their own agendas”.⁴²³ Whilst Steyn did not make a written report, his verbal report reflected information gathered by the National Intelligence Service.

Batchelor and Willett concluded in their 1998 book that “[recent] revelations have confirmed the thesis that the De Klerk government

pursued a double-edged political agenda after the unbanning of the liberation movements in 1990. While engaged in formal constitutional negotiations on the one hand, on the other hand it sought to destabilize the ANC through orchestrating violence to coincide with major ANC activities and through targeting ANC leaders for vilification and assassination campaigns. As a result of this double-edged agenda, and because De Klerk lacked any meaningful influence or operational control over the SADF, he was unwilling and unable to control or fully rein in the 'dissident elements' within the security forces who were accused of fomenting or perpetuating political violence through acts of commission or omission".⁴²⁴

In 1990 Basson had briefed De Klerk about Project Coast.⁴²⁵ He told De Klerk that the programme focused on the development and production of incapacitants and irritants (particularly CR) which, Basson said, were not prohibited by the Geneva Protocol. This interpretation of the Geneva Protocol is not generally accepted.⁴²⁶ On the biological warfare programme, De Klerk was told that a research and production facility had been established to keep up to date with the changing threat. Basson said, "we are constantly producing new organisms in order to develop a preventative capacity as well as treatment".⁴²⁷ De Klerk ordered that no work be done on lethal agents, but he authorised the continued work on incapacitants and teargas.⁴²⁸

The biological programme at RRL was not curbed.⁴²⁹ By mid-1993, R200,000 had been spent on plans for a state-of-the-art biological production plant at bio-safety level 4, in which a 300-litre fermentor would have been installed to produce much larger quantities of pathogens than had previously been produced. The upgraded facility was never built.⁴³⁰

The production of new generation tear gas (CR) was, in the final analysis, the only conventional chemical weapon produced by Project Coast, although Basson did say that prototypes of weapons containing incapacitants were produced and this was accepted as fact by the court.⁴³¹ Before 1989, the Reduced Defence Command Council authorised that Project Coast investigate both irritants and incapacitants to provide the SADF with "all information and capabilities with regard to the known agents as well as newer developments and better, more cost effective agents". The large-scale production and weaponization of these agents was envisaged.⁴³²

According to a briefing document prepared for the Minister of Defence in 1993, the first breakthrough with regard to crowd control agents was in 1986, when the process for the large-scale production of CR (referred to in official documentation as NGT or new generation teargas) was developed. Weaponization began a year later.⁴³³ In 1989, Basson reported that 20 tons of CR had been produced, of which 10 tons had been used by the army and the South African Police for weapon production. According to Basson, this was a major achievement since the only countries which could have reached these levels of CR production were the United States and Britain.⁴³⁴ Gen. R. (Witkop) Badenhorst who held the positions of Chief of Staff Army Logistics, Deputy Chief of the Army and Chief of Staff Operations (Personnel) told the authors that stocks of CR munitions were standard issue to troops patrolling the townships.⁴³⁵

The operation of filling munitions with CR was named Project Keyboard. The filling was done by Swartklip Products. Basson, Col. Melliar, the SAMS logistics officer for Project Academic, and Rudolf Louw were in charge. Then, as programme manager at Armscor, Louw identified the SADF's needs, found the contractors to do the work, and ensured that the job was done. He said in court that munitions were not filled with any other chemical substances as far as he was aware.⁴³⁶

Louw confirmed that CR was bought through the company Intramex, and stored in an Army depot at Naboomspruit prior to transport to Swartklip Products at Philippi, Cape. It was only some time later that Louw learned the CR was manufactured at Delta G Scientific, and then only by chance, through conversations with some of the staff at Protechnik. Armscor paid Intramex R300 per ton—a total of R7.1 million. Delta G Scientific was also paid R1,000 per ton from the Project Coast budget,⁴³⁷ so that the CR was paid for twice.

The munitions filling operation at Swartklip Products, a Denel subsidiary, was run by Floris Laubscher. Laubscher testified in the Basson trial that during the period 1987 to 1994 the parastatal arms manufacturer, Armscor, supplied Swartklip with CR powder to load into 11,966 hand grenades, rifle grenades, 81-millimetre mortar bombs and 1,373 155-millimetre projectiles. The hand grenades may have been earmarked for crowd control but the larger calibre ammunition would likely have been intended for use in conventional war.⁴³⁸ If any munitions were intended for use in a conventional war, they would have been used in Angola. But even

in a conventional warfare situation it would be difficult to find a reason for long-range use of the teargas such as would have been the case if the G5 had been used as the delivery system for the projectiles. Former Chief of the SADF, Gen. Jannie Geldenhuys, told the authors that the 155-millimetre projectiles could have been envisaged for crowd control.⁴³⁹

The Chemical Weapons Convention, signed by South Africa in January 1993, forbade the use of CR in a conventional war outside the borders of the producing country. This meant that the 155-millimetre shells had to be destroyed after South Africa signed the CWC. This condition did not escape the attention of the Co-ordinating Management Committee. In a meeting in January 1993, it was noted that if the holders were to be removed from the grenades and stored separately, they would not longer be in conflict with the CWC. This course of action was accepted.⁴⁴⁰

Laubscher said that over the seven-year lifespan (1986-1993)⁴⁴¹ of the munitions-filling project, hundreds of pyrolytic tests were carried out before weaponization of each batch. According to Laubscher, Swartklip was the leading pyrolytic test facility in South Africa. Despite this, Basson claimed that the secret nature of the work meant that the pyrolytic tests had to be conducted elsewhere. Basson's defence advocate claimed that to this end equipment was purchased from East Germany and Libya for R5.5 million (US\$ 1,255,870, calculated at the average exchange rate for 1986)⁴⁴² and a laboratory established at the Special Forces headquarters, Speskop. No supporting testimony was heard from those people Basson said had worked at the laboratory at Speskop since they could either not be traced or were deceased. The Judge found that, "[T]he project was a great success. That meant that it was in a position to weaponise incapacitants. In order to develop to that level with the weaponization it is unavoidable that a pyrotechnical laboratory must exist. There was not one at any of the other fronts. Swartklip wasn't involved in the weaponization of methaqualone and BZ. The laboratory must have been at Speskop".⁴⁴³ Dr Lothar Neethling, former head of the South African Police's Forensic Laboratory, told the TRC in 1998 that he was aware of CR having been used on only two occasions by the police.⁴⁴⁴ He was unable to tell the Commission when and where it was used. According to the head of the former Applied Chemistry Unit of the state sponsored CSIR, Vernon Joynt, weaponized CR was used outside the borders of South Africa but not at long range:

“... Somewhere in the mid-80s when we were renamed the Applied Chemistry Unit, still in the CSIR, we were tasked by the SADF to collaborate with EMLC⁴⁴⁵ to train and supply kit to UNITA’s military engineers and special forces in order for them to be able to attack strategic military targets with advanced demolition capabilities. In one of our bridge demolition tasks we decided to hinder quick reconstruction of the damaged bridge abutment by contaminating the area of damage with a strong teargas. Wouter Basson supplied us a quantity (about 1kg) of pepper gas through the Delta G route, for this purpose”.⁴⁴⁶

Basson said during the course of his trial that the Defence Force weaponised CR in 120-millimetre mortars for shipment to UNITA on the instruction of Gen. A.J. (Kat) Liebenberg and that the ammunition had been dispatched to Angola by Military Intelligence.⁴⁴⁷ No evidence in support of this claim was heard.

Corrie Ferreira is an army colonel who has been the Defence Force’s technical ammunition officer for the past 22 years. Ferreira told the court during the Basson trial that he was an expert on the shells used for CR and on pyrotechnics. He had unrestricted access to all Defence Force ammunition depots serving the army, navy and airforce.⁴⁴⁸ According to Ferreira, not a single 155-millimetre projectile loaded with CR was ever issued to any SADF unit, and all 1,373 were “destroyed” by being emptied of CR and re-loaded with smoke (he did not put a date to this destruction). He said that ammunition supplied to UNITA by the SADF was dispatched by Military Intelligence, which obtained it directly from Armscor’s factories or from the various SADF ammunition depots, in a project named Operation Spyker. He said that the SADF’s Project Muly resulted from the need to fill 120-millimetre mortars with CR. R65,000 was budgeted for the 1986/87 and 1987/88 financial years to empty 120-millimetre shells for this purpose, with R16,000 per year budgeted for the years 1988/89, 1989/90 and 1990/91.

Ferreira said that the records of 91 Ammunition Depot at Naboomspruit showed that in 1996, 1002 81-millimetre mortars filled with CR were issued to Special Forces before the CR-projectiles in the SADF arsenals were destroyed. He said he was unable to find any further records of the issue to Special Forces or the destruction of the 81-millimetre CR mortars. His records show that 11 966 hand grenades filled with CR were delivered by Swartklip to 91 Ammunition Depot. From there they were issued to various SADF units, including the Logistics wing of SAMS, which

was responsible for training combat troops in the use of the grenades. The SADF still has 987 CR grenades in stock, along with 2,987 rifle grenades loaded with CR. About 20 blue drums containing 30 kilograms each of unweaponized CR are still stockpiled at 91 Ammunition Depot, Naboomspruit.⁴⁴⁹

Ferreira's testimony on the use of CR-filled mortars was contradicted by that of Rudolf Louw. Louw said that during Operation Packer, the mopping-up and withdrawal phase of the Angolan conflict, he was reliably informed by some of his former SADF colleagues that CR mortars had been used. This was in direct contravention of his own instructions, which were that no weaponised CR was to be used operationally. Louw was told this by middle-ranking officers, who said that huge quantities of the CR mortars had been used by the SADF. This came as a great shock to him because he did not even know that the Army had been issued with the CR mortars. The entire weaponization project was supposed to be top secret.⁴⁵⁰

There is no doubt, however, that the SADF intended using its crowd control agents in South Africa. A document made available in the Basson trial indicates that by July 1992 the SADF felt strongly that information about the products weaponised by Swartklip should be protected. The document states that:

"Although the very sensitive work done by the Project has definitely been downscaled, there are still a whole range of projects for which the technical information must be protected. Recent developments have indicated that, in public investigations such as, for example, the Goldstone Commission, the SADF and the SAP cannot withhold information any longer. So it appears now as if the Goldstone Commission is at the point of subpoenaing Swartklip Products, a Denel affiliate, to make known the nature, content and effect of all products manufactured for the South African Police. A large number of the products which are manufactured for Jota [Project Coast had been re-named Jota by that time], must in the future be used during critical unrest situations. If knowledge of these weapons should leak out now, the instigators of this unrest will already begin to make propaganda against the use of these agents and to develop effective counter measures. That the SADF is the developer and client of these products must definitely remain undercover so that the tactical high ground can be maintained."⁴⁵¹

The research contracts for that year make allowance for R1,500,000 to be paid to Swartklip Products and Delta G Scientific for offensive chemical research out of a total budget of R9,835,000. R3 million is budgeted for raw materials and the purchase of agents for the period July 1992-March 1993. R1,500,000 is set aside for the period April 1993-March 1994 for offensive chemical research, and R1.4 million is earmarked in the same period for “own chemical operations”.⁴⁵²

On 14 January 1993 South Africa signed the Chemical Weapons Convention. On 31 March 1993 a meeting of the Co-ordinating Management Committee of Project Coast was attended by, amongst others, Gen. A.J. (Kat) Liebenberg, Chief of the SADF; Lt.-Gen. D.P. Knobel, Surgeon-General; the Chief of Staff of the Army; the Chief of Staff of the Navy; Brig. W. Basson, and Col. B.P. Steyn. The CMC decided that South Africa should deny its possession of chemical weapons until the CR project had been completed. At that stage the Surgeon-General was still in possession of 6 tons of CR and 10 tons of the intermediary. It was decided that the research into the delivery systems for waterborne CR and the foam form should continue until the end of the 1993/4 financial year. The management of the CR project would be the responsibility of Ben Steyn and was budgeted for at a cost of R2.3 million (US\$ 655,500 at 1992 exchange rates).⁴⁵³ Work was being done on a water cannon which could disperse a water-based formulation of CR.

Gen. Knobel referred to the need to keep the production and use of CR a secret. In briefing the Minister of Defence in 1993, Knobel told the Minister that were South Africa to declare its work on CR before the signing of the Chemical Weapons Convention “the groups responsible for mass action” would have an opportunity to consult their international advisors and to find ways to counter the agent. This, claimed Knobel, would “neutralize the army’s most effective weapon in handling internal unrest”.⁴⁵⁴ Knobel was supported by the Minister of Defence, Eugene Louw, in his proposal to keep South Africa’s CR stocks a secret.⁴⁵⁵ This was not a violation of the CWC which only required disclosure of riot control agents after the entry into force of the Convention, in 1997.

The search for incapacitants and crowd control agents is what supposedly led the scientists at Delta G to investigate street drugs, including methaqualone,⁴⁵⁶ cannabis and LSD. Gen. Lothar Neethling explained to the TRC that the intention to find alternatives to teargas for riot control was

discussed at the meetings of a study group made up of members of the police, military and Armscor. Neethling said he had travelled to Germany, England, Israel and the United States to collect information about crowd control agents.⁴⁵⁷ He told the TRC that in 1983 he was instructed by the Commissioner of Police Gen. Johan Coetzee, the Surgeon-General Gen. Nicol Nieuwoudt, and Minister of Law and Order Louis Le Grange, to assist Basson in this pursuit. To this end, he gave Basson more than 20, 000 mandrax tablets, lysergic acid (LSD) and cannabis confiscated by the police. Neethling said the intention was to change cannabis into a gas formulation. Documents found at the time of Basson's arrest in 1997 indicate that research was undertaken into the development and synthesis of cannabinoid analogues. Reference was also made at the TRC hearing to research conducted into the combined effect of methaqualone and cannabis.⁴⁵⁸

Dr Klaus Psotta, who as a conscript to the SADF was assigned to work with Gen. Neethling and who later was employed at both RRL and Delta G Scientific, was instructed to extract the active ingredient from bags of cannabis provided by Neethling. Psotta was supposed to find a formulation of cannabis that could be used in grenades or as a powder. His work was taken over by organic chemist Dr Johan Koekemoer and fellow scientist R.I. Thompson who proposed the synthesis of cannabis analogues in 1989.⁴⁵⁹

Work continued on cannabinoids at Delta G Scientific in the six years between 1983 and 1989 using cannabis provided free of charge from the police forensic laboratories through Lothar Neethling. By the closure of the programme in 1993 no cannabinoid formulation had been produced for weaponization.

Delta G Scientist, Geoff Candy, told the authors that in about 1985 Basson noted that methaqualone and cannabis (in combination) were the street drug of choice amongst youth, particularly in the Western Cape.⁴⁶⁰ This led to work on the combination of the two drugs. Whether the intention was to undermine the health of communities or to develop a drug to sell for personal gain is not clear. As far as the authors are aware, this research did not result in a product even on a small scale.

In addition to the cannabis research, about 1,000 kilograms of methaqualone was produced at Delta G Scientific under the code name Mosrefcat.⁴⁶¹ There is no documented indication as to when the

production of methaqualone began, but a production report made available at the TRC hearing is dated 31 August 1988.⁴⁶² The production of methaqualone and its various analogues produced by Delta G Scientific was authorised by the project's Co-Management Committee which received regular reports in this regard.⁴⁶³ According to Gen. Knobel, the programme was monitored by people appointed by the Minister of Law and Order and the Commissioner of Police.⁴⁶⁴ The raw materials for methaqualone production were imported by the procurement front company, Organochem.⁴⁶⁵

A document handed to the TRC by Gen. Knobel claims that methaqualone was placed in mortars to be tested on animals and humans. The results were, however, "disappointing" and Gen. Knobel said production was stopped in 1988. Thereafter "a far more active analogue was developed through further research" which was envisaged to overcome these "disadvantages".⁴⁶⁶ This account of Knobel is not verifiable from any other source. It is not known whether methaqualone was weaponised or not.

Despite the initial failure of the methaqualone to yield positive results, and the alleged production of superior analogues, in late 1992 the Co-ordinating Management Committee approved the purchase of 500 kilograms of methaqualone from Croatia, a mere three months before all incapacitants were to be destroyed.⁴⁶⁷ According to Knobel, on 13 November 1992 the Co-ordinating Management Committee of Project Coast decided that, given the upcoming signing of the Chemical Weapons Convention and the resultant difficulty in procuring chemicals, all procurement actions necessary to round off the project should be completed by the end of 1992.⁴⁶⁸ It is unclear why the CMC thought this procurement to be necessary, but clearly it intended to avoid restrictions that may have been placed on procurement by the CWC. It is also unclear why the SADF would have purchased the methaqualone in September 1992 when the destruction of all chemical agents allegedly took place in January 1993. The prosecutors in the Basson trial argued, on the basis of the forensic audit of Project Coast's accounts, that the alleged purchase of methaqualone did not take place. Instead, they argue, the money was used in the perpetration of fraud. The Judge found that the procurement did take place as stated by Basson and that no fraud had been committed. He stated in his judgement that "[E]verything went smoothly until about 1989 when a new president arrived on the scene. It was decided that the process of

weaponizing the incapacitants had to be accelerated. The problem was that the methaqualone manufactured at Delta G Scientific was not acceptable and BZ and methaqualone had to be procured. Provision was made for Delta G to make Ecstasy in time.”⁴⁶⁹

The use of methaqualone as a crowd control agent is a peculiar idea. The indications are that this was not its only intended use. The further particulars to the indictment of Basson⁴⁷⁰ refer to his having ordered Steven Beukes (a young pharmacist doing his national service) to establish a pill manufacturing plant at the Headquarters of SADF Special Forces near Pretoria in 1985. The prosecution alleged that Basson gave Beukes the money to purchase the necessary equipment and finance for the tablets to be manufactured and packaged in blister packs. Basson was to supply the raw materials. He gave Beukes a stamp that would mark the tablets with an MX on the one side and RL on the other.⁴⁷¹

Once the tablets had been manufactured, Beukes testified they were handed to Basson.⁴⁷² Basson’s legal team claimed that the mandrax tablets were placebos to be used by Special Forces to infiltrate the drugs and arms routes used by the ANC’s armed wing, Umkhonto we Sizwe. This does not tally with the testimony of Danie Phaal that in February 1992 Basson offered him⁴⁷³ 100,000 mandrax tablets which he could sell for personal gain. Basson was acquitted on this charge in June 2000 by Judge Hartzenberg who found that Phaal was an unreliable witness who had implicated Basson in acts he himself had perpetrated in order to save himself from prosecution.⁴⁷⁴

If one is looking for motives to produce methaqualone, it is interesting to note that in 1982, De Villiers wrote about “chemical warfare’s one outstanding military success”. “This success consisted of the inflicting of over ten percent casualties on the Americans in Vietnam by the distribution of drugs to their Forces. If this is considered a chemical warfare action [which it is not], it was undoubtedly covertly supported and managed by the Vietcong and their patrons, it is the most successful example of chemical warfare in history and one that should be taken most seriously, far more seriously than the threat of conventional chemical warfare attack”.⁴⁷⁵ Perhaps De Villiers’ views had an influence on the thinking of the military and may have motivated the subsequent manufacture of street drugs by Delta G.

Whilst the Surgeon-General has claimed that methaqualone was intended for crowd control purposes, if the methaqualone was made into tablet form, that would contradict his claim. As mentioned above the sale of the mandrax tablets could have generated funds for covert operations or for personal gain. It is also possible, as claimed by Basson, that the tablets could have been infiltrated into ANC trade routes to compromise ANC members and so to win them over as sources for the security forces. A third possibility is that the tablets were intended to undermine communities by introducing addictive drugs. Basson claimed that the tablets which were manufactured by pharmacist Steven Beukes were placebos, made to look like mandrax tablets. Basson also said that he and Special Forces operator, Hekkie Van Heerden devised the formulas for the weaponization⁴⁷⁶ according to which the methaqualone was compacted into tablet form before being aerosolised. The tablets varied in size and the intention was to weaponise a maximum of 500 to 2,000 projectiles, including hand grenades, 81-millimetre mortar bombs and 155-millimetre projectiles. He said that the payload of an 81-millimetre mortar was around 500 grams, that of a hand grenade 350 grams and that no further physiological tests were done on the weaponised methaqualone, "adequate testing had been carried out previously by both the Americans and the Russians".⁴⁷⁷

Gen. Knobel testified in the Basson trial that cocaine was also considered for use as an incapacitant but had been found wanting.⁴⁷⁸ Valued by Basson at R70,000 per kilogram it was an expensive experiment.⁴⁷⁹ Basson stated that the cocaine was combined with BZ and used to fill weapons prototypes. The Judge accepted Basson's explanation for the purchase of cocaine,⁴⁸⁰ dismissing the State's argument that the cocaine had not been procured but had been used as an explanation for a fraudulent deal as "rubbish".⁴⁸¹

In July 1992, Dr Philip Mijburgh, Managing Director of Delta G Scientific, wrote a letter to Basson in which he quoted costs for the production of MDMA (also known as Ecstasy). The total cost for 1,000 kilograms was quoted as R840,000 (US\$ 294,700 calculated at 1992 rates). The letter states that delivery could take place some 6 to 8 weeks after production.⁴⁸² About a week later, the Surgeon-General confirmed the order in writing and provided Mijburgh with provisional immunity against prosecution for the production of the drug.⁴⁸³

Between February 1992 and January 1993 production of MDMA took place at Delta G Scientific under the code-name Baxil,⁴⁸⁴ also referred to as Adam. If Dr Koekemoer's testimony in the trial and at the TRC hearing is correct, the production of the MDMA started even before the quote was sent to Basson by Mijburgh and before the order from the SADF.

Whilst the SADF and the Surgeon-General have consistently maintained that the MDMA produced at Delta G was intended for use as a crowd control agent, the organic chemist responsible for its manufacture, Koekemoer, doubted its efficacy for crowd control. He has said that he had never seen Ecstasy mentioned as a chemical warfare agent or crowd control agent in the literature from Porton Down or Edgewood Arsenal.⁴⁸⁵ Koekemoer was concerned that it was to be used for purposes other than that stated. 912 kilograms of 90 per cent to 95.5 per cent pure MDMA in crystalline form had been produced when Project Coast closed. The Truth Commission found that "there was no scientific basis for thinking that it would be an appropriate, safe or sensible form of crowd control".⁴⁸⁶

Koekemoer's concerns about the SADF's intentions for the MDMA may have been well founded if one considers that at least some of the MDMA produced at Delta G Scientific was placed in capsules. Beukes, who was told it was for a State contract, estimated that in total he made one million capsules on Basson's orders. It is extremely unlikely that the MDMA was really intended for use as a crowd control agent. No documents indicate that research was done on its efficacy as a crowd control agent despite claims by Basson's defence team that Swartklip Products did tests on its weaponization.

Documents written in January 1993, when Basson was supposed to destroy the drugs and agents of Project Coast, stated that 1,680 kilograms of BZ was amongst the agents destroyed. A 1993 briefing to the State President by Gen. Knobel claims that: "In line with guidelines laid down by the State President in 1990, research and production only continued in relation to irritants and incapacitating agents which could be used in conventional situations", the agents named as:

1. New Generation Teargas (NGT), a derivative of CR. (Irritant)
2. A BZ variant which is produced locally. (Incapacitant)
3. A methaqualone derivative which is locally produced. (Incapacitant)
4. A Dimethylketone-amphetamine (MDMA) derivative. (Incapacitant)

The report goes on to acknowledge that the BZ variant is forbidden by the Chemical Weapons Convention and states that it will have to be destroyed or declared. It also states that 1,000 kilograms was produced for weaponization in 1993 and it advises that this too be destroyed.⁴⁸⁷ It is however uncertain where the BZ derivative was produced, and whether it was of South African origin. It was not produced at Delta G Scientific. None of the Delta G chemists could tell the authors where it could have been produced. Basson testified during the course of his trial that Project Coast funds were used to purchase a “large amount” (5,000 kilograms) of the substance in a joint operation with Gen. Peter Regli, head of Swiss intelligence. The prosecutors contested this version of events but it was found by the Judge to be an accurate reflection of events who also accepted Basson’s testimony that the BZ had been used to fill weapons.⁴⁸⁸

In November 1992, Basson wrote a letter, signed by Gen. Knobel, stating that the SADF had in its stores 1,000 kilograms of product B (BZ); 500 kilograms of product M (methaqualone) and 30 kilograms of product C (cocaine), and that these products would be used in the course of the 1993/4 financial year. According to a briefing document prepared for the Minister of Defence in 1993,⁴⁸⁹ 1,000 kilograms of a locally produced BZ variant was manufactured and intended for weaponization in 1993. In Basson’s trial, his defence counsel stated that large quantities of BZ (between 3 and 4 tons) were purchased “as a precursor to the Croatian methaqualone deal” in 1992.⁴⁹⁰ Basson testified that BZ was used to fill hand grenades, 81-millimetre mortars and 155-millimetre projectiles, though in the case of the latter, the process went only as far as filling the canisters. He said that pyrotechnical testing and weaponization of the BZ took place in what was known as the Pilot Plant at Speskop, which had been demolished and rebuilt in 1986. He said that three tons of the BZ were used—1.5 of them just to find the formula and that Neethling was fully aware of the BZ development.⁴⁹¹

Chronology of the alleged purchase and production of BZ

1985 A kilogram of BZ was produced on laboratory scale at Delta G but the process was never scaled-up. The remaining unused chemical starting materials (a few small bottles readily obtainable from commercial laboratory chemical supply houses) were destroyed at a much later date during a

general clean-up. There were no records of large purchases of the starting materials for BZ.⁴⁹²

- 1990 October: The Defence Command Council decides that research and weaponization of CR, BZ, MDMA and methaqualone derivative should go ahead.⁴⁹³
- 14 Jan. 1992 Alleged chemical attack on Frelimo troops near the South African border. British verification mission claims an agent like BZ may have been used. The other verification missions do not reach the same conclusion.⁴⁹⁴
- 9 Nov. 1992 Letter from Basson, signed by Knobel, about what substances are in SADF stores:
"The following specialist chemicals are in stock at the South African Medical Services which will be worked up in the 1993/1994 financial year: (a) 1,000kg product B [According to testimony at the TRC and in the trial Product B is BZ], (b) 500kg product M, (c) 30kg Product C [cocaine]."⁴⁹⁵
- 7 Jan. 1993 A 1993 briefing to the State president by Col. Ben Steyn and Knobel claim that: "In line with guidelines laid down by the State President in 1990 research and production only continued in relation to irritants and incapacitating agents which could be used in conventional situations. The agents are named as being:
1. New Generation Teargas (NGT), a derivative of CR. (Irritant)
 2. A BZ variant which is produced locally. (Incapacitant)
 3. A methaqualone derivative which is locally produced. (Incapacitant)
 4. A Dimethylketone-amphetamine (MDMA) derivative. (Incapacitant)
- The report goes on to acknowledge that the BZ variant is forbidden by the Chemical Weapons Convention and states that it will have to be destroyed or declared. It also states that only 1,000kg was produced for weaponization in 1993 and it is advised that it is destroyed.⁴⁹⁶

- 30 Mar. 1993 Certification of the destruction of chemical products on 27 January 1993. It is stated that the following products were in the load that was destroyed:
- 18 plastic drums (weighing 50kg, containing 100 litres, Product M) = 900kg (mandrax/methaqualone)
 - 73 metal drums (weighing 12.5kg, 20 litres, product BX) = 912.5kg (Ecstasy)
 - 2 metal drums (12.5kg, 20 litres product C) = 25kg (Cocaine)
 - 2 containers (about 6kg, 12 litres product P) (it is not known what Product P was)
 - 2 small metal drums (about 6kg, 12 litres, Product C) = 12kg
 - 11 green metal drums (80kg, 200 litres, Product B) = 880kg (BZ)
 - 4 paper drums (50kg, 200 litres, 2 with product M and 2 with product B) = 100kg each
 - 2 cardboard boxes with 60mm and 81mm mortars
 - Total Product M = 1000kg and Total Product C = 37kg.
 - Total Product B: 980kg
- Maj.-Gen. Verbeek states it is not necessary to test the contents because it would draw too much attention⁴⁹⁷
- May 1993 Brig. H. Strauss of SAP Forensic Labs receives 4 samples from Col. Steyn marked B, BX, C and 1 container with no identification. He finds them to be:
- B = 1-methyl-3-piperidyl benzilate
 - BX = 3,4-metileediolsimetamfetamien-hydrochloried (MDMA)
 - C = cocaine hydrochloride
- The fourth sample is found to be methaqualone⁴⁹⁸
- 1 Feb. 1994 Write-off values for the destroyed substances as supplied by Basson:
- Substance M: first 500kg = R6,900,000
 - Second 500kg = R7,440,000

Total = R14,340,000
Substance BX 912.5kg = R3,650,000
Substance C 37kg = R2,590,000
Substance P 1kg @ R40,000/kg = R40,000
Substance B 980kg = R1,176,000
TOTAL VALUE = R21,796,000

25 Feb. 2000 During the cross-examination of forensic auditor, Hennie Bruwer, Cilliers (Basson's defence attorney) claims that "a large amount" of BZ was bought in a joint operation with Gen. Peter Regli, head of Swiss intelligence.⁴⁹⁹ A joint divisible guarantee had been created with Swiss and SA funds, says Cilliers. During the testimony of auditor Petro Theron, some months later, the purchase is said to have been made in April/March 1992 with US\$ 2.46 million which was placed in an overseas account and earmarked for the creation of a divisible guarantee.

Cilliers stated that the write-off values of drugs destroyed in January 1993 makes mention of 980kg of Product B, a variant of BZ, and that approximately four tons of BZ had been bought, but by the time of destruction, "this had largely been used up".

In a subsequent report in response to questions posed to him during cross-examination, Bruwer goes through all the documentation relating to foreign transfers of Coast funds during the period in question. He analyses Basson and Knobel's explanations for the use of the funds. He concludes that the claim that 4 tons of BZ were purchased does not correlate with the explanations given by Basson and Knobel or with the auditor (Theron's) reports.⁵⁰⁰ [Later in judgement the Judge finds that Bruwer's report is incorrect.]

7 June 2000 In cross-examination during the Basson trial, Swartklip employee Floris Laubscher confirmed that Swartklip was never involved in weaponization—to prototype stage—of methaqualone, BZ or amphetamines. Swartklip was responsible for the weaponization of CR for the Defence Force.⁵⁰¹

In summary:

- Only 1 kilogram of BZ was produced at Delta G, according to both the scientists interviewed and the production manager at Delta G although the Defence Command Council did authorise the production of BZ and Knobel claimed that 1,000 kilograms of the agent was produced locally.
- The chronology seems to show that, were BZ to have been purchased outside South Africa, this would have taken place some time between 1985 and 1993.
- No BZ was weaponized at Swartklip Products but, Basson said he purchased 4 tons of BZ of which had been used to fill munitions⁵⁰² at a laboratory at Speskop.
- No reports were ever made of BZ having been used internally as a riot control agent.

The forensic auditor could not find record of the payment for the BZ Basson claims to have bought, but his report is not found to be credible by the Judge who accepted that Project Coast was a success, which it could not have been if the substances Basson said he had purchased had not been purchased.

Three possible conclusions that can be drawn:

- BZ was manufactured in South Africa but not at Delta G. This is not likely because a scale-up process would have been designed at Delta G. None of the scientists there are aware of such a process having been designed.
- BZ was purchased elsewhere. There is no record of payment, and Basson said he bought 4 tons which is equivalent to total world production. BZ is commercially produced as an intermediary in the production of Clidinium bromide (an active pharmaceutical ingredient with anticholinergic activity on the peripheral nervous system).⁵⁰³
- BZ was not manufactured in South Africa and nor was it purchased abroad, and therefore the substance destroyed was not BZ.

If this last conclusion is accepted other questions arise. Where did the BZ tested by the police forensic labs after the destruction come from. If the Defence Command Council authorized the production of BZ, why did it not take place?

Col. Ben Steyn told the authors that BZ was never used by the military.⁵⁰⁴

There is, however, reason to believe that BZ may have been used in an alleged chemical attack which took place in January 1992 in Mozambique. The report of the Steyn Commission of Inquiry stated that the incident was a “practical training session”, carried out by members of the SADF, including Wouter Basson.⁵⁰⁵ This cannot be independently verified.

The story of this incident begins on 14 January 1992. The Third Battalion of Commandos of the Mozambican government forces, reinforced by one company of provincial troops, left on that day to attack a Renamo base close to the South African border. Altogether there were 300 to 400 soldiers in the Mozambican forces.⁵⁰⁶ They travelled initially by vehicle and continued the next day on foot. Seeing evidence of the presence of Renamo forces in the area, the troops grouped into a box formation,⁵⁰⁷ one company forming each side of the box. They moved to a position south of the Renamo base near Estompene. As it was late, they set up camp and decided to attack the following morning. During the night, sounds of domestic animals were heard.

At daybreak on 16 January, the troops moved towards the Renamo base. A white jeep-type vehicle and a light aircraft were allegedly spotted by the troops—accounts of where the vehicle was travelling and whether it crossed the South African border are varied. After the incident, when a South African verification mission was despatched to investigate the incident, the Mozambican delegation that accompanied them was of the view that the vehicle had been in the Renamo base.

The troops entered the Renamo base and found it deserted. They left the camp without destroying it. Several kilometres from the base, still in box formation, they came under limited small arms fire of no more than 15 shots. They took cover. At that moment there was an explosion overhead. The explosion produced dark smoke which then dissipated. It did not cause consternation in the troops, and they continued moving.

After about 15 minutes there were problems in keeping the soldiers moving forward, and control was lost. According to one of the international investigators, Dr J.P. Thompson, “within minutes of the explosion some of the troops began to feel hot and developed sore throats and dry mouths.

Some poured water over themselves. In severe cases profound muscular weakness occurred within two hours. Many were disoriented and confused. Vision was affected. Some casualties developed haematuria”.⁵⁰⁸

Casualties were admitted to the Maputo Military Hospital from 18-27 January 1992. The following statistics were supplied in the report of the United Nations investigating team:⁵⁰⁹

Total number of troops involved	382
Reported dead and transported to Maputo	4
Wounded during uncontrolled shooting	2
Admitted to Maputo Military Hospital	28
Missing	38

All troops interviewed by the investigating teams referred to an explosion after which their symptoms appeared. Many of the soldiers interviewed likened the explosion to that caused by a RPG 7 rocket launcher.

According to the report of the Swedish verification mission, the explosion was likely to have been caused by a military smoke munition. The United Nations report deals with the munitions aspect in some detail, stating that the explosion could have been caused by an exploding artillery or mortar shell.⁵¹⁰ The likelihood of the explosion being caused by a self-destructing rocket is ruled out since such a rocket “would not be expected to carry a chemical agent”.⁵¹¹

The use of a single artillery round or mortar shell is unusual in both conventional or chemical attack. If, as has been postulated in the intelligence gathered for the Steyn Report,⁵¹² the attack was conducted by the South African military as an experiment, it is not impossible that only one mortar shell, or a single artillery round may have been used, although this is significantly less than the amount prescribed for use in chemical warfare.

The report also refers to the use of an unmanned aircraft in the attack. The SADF did, at that stage have access to Unmanned Aircraft Vehicles which were produced by Kentron. Known as the Seeker, this aircraft is flown from a point on the ground and is intended for reconnaissance

purposes—it usually carries either a night or day camera. It is not impossible to substitute the 40-kilogram camera with an explosive payload.

According to an interview conducted by the United Nations delegation with Eduardo Malata, head of the military engineers of the Maputo Commando, the explosion which caused the dark cloud of smoke could not have been caused by a mortar. A mortar explodes on the ground whereas the explosion that caused the smoke emission was in the air, suggesting the use of a proximity fuse. The United Nations report goes on to state that whilst it is improbable that a chemical attack would be planned using a single round, “it cannot be excluded that the limited quantity of agent that could be delivered would have had an effect which could have been exacerbated by local climatic conditions and limited water supply”.⁵¹³

All reports about the incident and interviews with patients agree that the troops experienced a rise in body temperature after the alleged attack, accompanied by irrational behaviour and desperate attempts to cool down leading the troops to remove their clothes. Thompson summarised the common symptoms as: “a feeling of tremendous heat on the skin, severe thirst, sore throat, loss of self control, emotional liability, muscular weakness, visual disturbance and difficulty breathing”.⁵¹⁴

Biological samples taken by both Davey and Thompson failed to yield significant results. Davey tested the samples taken for cholinesterase levels and found the results to be inconclusive.

The United Nations report presents two interpretations of the symptoms, reflecting the opinions of Heiner Staub on the one hand and J.P. Thompson on the other. Staub believed that the symptoms experienced by the troops were the result of dehydration and resultant heat stress. Thompson contended that the symptoms were consistent with exposure to a centrally acting atropine-like agent.

It is relevant to note that Joachim Jonasse, a Mozambican lieutenant with 12 years experience in the military, said that the troops had no water supply problems.⁵¹⁵ One soldier⁵¹⁶ stated that the soldiers found 25 drums of water when they entered the Renamo base. Three of the drums were taken by the first company of troops.

The United Nations report broadly concludes that the effect on the troops was consistent with the use of an atropine-like chemical warfare agent and severe heat stress. The samples taken from the environment and from the troops' clothing did not assist in drawing a firm conclusion. This may have been due to the considerable time delay between the attack and the investigation. Thompson told the authors that he could not say for certain that the site which the United Nations team visited and where samples were taken was the actual site of the incident. The troops had not had any means of determining the exact co-ordinates at the time of the incident.

The South African investigation, the first of the international investigations, was led by Dr Brian Davey. Davey's team interviewed six casualties and concluded that although an "unusual incident of sorts did occur" there was insufficient evidence to suggest a chemical attack took place.

Dr J.P. Thompson conducted an investigation shortly after the South African investigation team had been in Maputo. He was accompanied by the British defence attaché in Maputo. Thompson conducted interviews with troops of all four companies involved in the incident. Information obtained in the interviews (transcripts were attached to his report) was consistent and non-contradictory on the salient points. This led Thompson to the conclusion that an agent such as BZ may have been used.

In contrast, Davey states that the "symptoms do not fit the picture of any known chemical agent. At the time of examination, no patients or corpses showed signs attributable to known chemical agent exposure".⁵¹⁷ Davey suggests that he had seen "nothing to exclude the possibility that Frelimo troops might have fired it [a chemical munition] themselves in error".⁵¹⁸ There is no evidence to suggest that the Mozambican forces had access to chemical munitions.

It is possible that the findings of the two teams differed because they had interviewed different subjects or because they had approached the interviews with different perceptions. Should it have been found that a chemical weapon had been used in the incident, suspicion would naturally have fallen on the South African security forces. The recommendations in Davey's report reflect this concern: "However valid our scientifically based negative conclusions may be, those who would want to score political

points against Renamo and South Africa will carry on, and will probably find a receptive audience in the media due to the invariably sensationalistic nature of chemical warfare. It will be important to distribute the results of our investigation as widely as possible in the international community, so that the uncertain nature of the allegations is known".⁵¹⁹

Davey's concern about the political implications of the attack for South Africa includes the observation that: "[T]here could be a need to be able to convincingly prove that we are not involved in this matter. A balance is needed between taking the actions required to maintain our own international interests, and possible overreaction—which could be perceived as guilty attempts to “cover-up”. It is relevant to note that the allegations made by Mozambique at the time of the incident included the allegation that “an aircraft and a vehicle had crossed from South Africa into Mozambican airspace and territory during this incident, thus constituting a violation of the Nkomati Accord and negatively affecting the spirit of cooperation between the two countries”.⁵²⁰

The South African verification mission was divided into two teams. The first group were medical and intelligence personnel who travelled to Maputo to interview and examine casualties. The second team were dispatched to the Kruger National Park, which bordered on the affected area, for field sampling and detection. Jan Lourens, the director of Protechnik, assembled the second team, which included Philip Coleman, Robert Temperman and members of 7 Medical Battalion. Lourens had been asked to participate because chemical verification was included in the brief of the Protechnik company.⁵²¹

The verification team met in the Kruger National Park in a camp near the Mozambican border. Davey and some Mozambican officers, said to have been members of the battalion that had suffered the attack, flew in by helicopter to join the team some time later. The team, with the Mozambican representatives, drove along the border on the South African side, but were unable to identify the site of the incident. The terrain is very consistent and it would have been almost impossible for them to have located the site accurately this way. No use was made of methods more likely to have located the site like the use of helicopters. Davey told the authors that helicopters were ruled out by the Air Force for reasons he did not know.

Following both the South African and British missions was a team from the Swedish National Defence Research Establishment, Drs Gustav Andersson and Sven-Ake Persson. They managed to conduct interviews with only six alleged victims. They concluded that the explosion was caused by a military smoke munition, and argued that the symptoms were consistent with poisoning with yellow phosphorus. They do, however, say in their report that: “the feeling of intense heat, dryness of skin and mucous membranes, the mental disturbances, even the long duration of the symptoms could be signs and symptoms of intoxication induced by an atropine-like agent”.⁵²²

The Swedish scientists believed that whilst the possibility of the use of an atropine-like substance is not impossible, they thought it unlikely, “these types of agents have been studied experimentally, but the step to use these substances in full-scale in the field is a rather large one. We also think even if a munition with atropine-like agents would exist they should not be easily available”.⁵²³

The fourth investigation was done by the United Nations. In March 1992 the Secretary-General of the United Nations appointed Dr Sven-Ake Persson, Mr Heiner Staub and Dr J.P. Thompson to look into the alleged attack. Staub, of the NC-Laboratory Defence Technology and Procurement Agency in Switzerland, was a new member of the team. Persson and Thompson had been to Mozambique for the Swedish and British investigations.

The team received a briefing by Davey and a copy of the South African on about the incident. Davey mentions his briefing of the United Nations team⁵²⁴ stating that the South African opinion of Thompson’s report was that: “it had selectively presented and distorted much of the available evidence, and its conclusions were unfounded”.⁵²⁵ The South African delegation which met with the United Nations team in March 1992 comprised those members of the SADF who had been part of the South African investigating team: Dr Brian Davey, Col. Ben Steyn and Commandant Putter. Thompson was not present during the briefing of the United Nations team by the South Africans.

Davey’s briefing to the UN team included a note of caution in relation to the “special pitfalls to be aware of when interviewing Third World patients”.⁵²⁶ Davey said “inappropriate publicity of poorly verified

incidents often had negative effects for those seeking advantage thereby. Widespread fear of CW in own troops results, with consequent panic at even the hint of battlefield smokes". In his internal report on the meeting to the SADF, Davey states that the members of the UN team present agreed with South African criticisms of the UK report.

Davey wrote, "chemical warfare is strangely unique in that it is the one threat which soldiers are generally allowed to run away from (especially when no protective equipment is available). If this phenomenon becomes generally known in a third world situation, this will have a devastating effect on troop discipline". He adds that "if the troops themselves see that making a chemical allegation will result in being hospitalized and treated as a VIP for a while, numerous future allegations can be expected. In an environment where medical infrastructure is virtually non-existent, any excuse will be used if it results in seeing a doctor—especially if a European doctor is involved". Davey advances this as one of the reasons why it was not necessarily in Frelimo's interest to publicise the incident. He calls into question the veracity of the answers given by the patients.

It is worth noting that in the absence of reliable biological or field samples all the teams involved in the investigations relied solely upon information gathered in interviews with troops involved.

The international experts who investigated the incident were not aware that South Africa had at the time an offensive chemical warfare programme. Had they been aware of this, they may have reached different conclusions. At the time of the alleged destruction of the chemical products related to the CBW programme, South Africa had at least 980 kilograms of BZ⁵²⁷ in stock.

The incident reveals some of the problems experienced by verification missions whose terms and political agendas are determined by the governments that appointed them. A lack of trust between some of the teams and suspicions of cover-ups by the South African team hampered a free and honest discussion between the various missions. The missions were also hampered by other circumstances: it was not possible to locate the site of the incident and therefore to take reliable environmental samples; the bodies of the deceased soldiers were in a state of advance decomposition by the time the verification teams had access to them; and the bodies had been piled into a mortuary that lacked refrigeration facilities. These factors

made it almost impossible for the verification missions to reach a conclusion as to the nature of the incident. All those consulted have however agreed that something strange happened.

THE PHASES OF PROJECT COAST'S DEVELOPMENT

According to one of the first scientists to be recruited to Delta G Scientific, the work of Delta G started as early as 1982 from laboratories at Special Forces Headquarters.⁵²⁸ The earliest document from Roodeplaat Research Laboratories seen by the authors is dated November 1983. It is a list of income and expenditure which shows that the company was in the process of being established. Minutes of directors meetings in 1984 reveal that the recruitment of staff was underway.⁵²⁹

Both companies expanded and developed throughout the mid-1980s under the leadership of veterinarian Dr Daan Goosen at RRL and former chemistry lecturer Dr Willie Basson at Delta G Scientific. Both companies underwent changes between 1987 and 1988 when their managing directors were replaced by former Special Forces colleagues of Basson. Special Forces dentist and hospital administrator, Dr Wynand Swanepoel, took over as Managing Director of RRL and a medical doctor, Philip Mijburgh replaced Willie Basson as Managing Director of Delta G Scientific. The timing of the change in leadership is significant since, according to a briefing document prepared for the Minister of Defence, the period March 1988-April 1990 was the "Commercialisation phase" of the programme.⁵³⁰

Official Project Coast documents⁵³¹ (written towards the end of the programme) set out the phases of the programme as follows:

Phase 1: the Establishment Phase (April 1982-March 1988)

The establishment of the front companies and production facilities: Delta G Scientific, Roodeplaat Research Laboratories and Infladel.

During this period some 20 tons of CR were produced by Delta G Scientific of which 10 tons were used by the army and the South African Police for weapon production.⁵³²

Phase 2: The Commercialisation Phase (March 1988-April 1990)

During this phase representations were made to the CMC regarding the privatisation of the front companies. After this the front companies were prepared for privatisation. The companies' balance sheets were restructured to create manageable commercial packages. This is said to have been completed by September 1988.⁵³³ During this period RRL was producing a range of assassination weapons as catalogued in the Verkope list.⁵³⁴ It was also during this period that the defensive CBW project was moved to fall under Armscor's authority.

Phase 3: The Privatisation Phase (April 1990-September 1991)

This phase saw the cancellation of all research contracts with the two front companies. From August 1991 the companies were "sold" to the management and workers. In September 1991 a submission regarding the privatisation was made to the parliamentary committee which dealt with all sensitive State projects. The Committee included Finance Minister, Barend du Plessis; Minister of Justice, Kobie Coetzee; Minister of Trade and Tourism, Dawie de Villiers; and Minister of Constitutional Development, Gerrit Viljoen.⁵³⁵ Military analysts Willem Steenkamp and Paul Grobbelaar told the authors that this committee was unlikely to have been much more than a window dressing because the people involved in the committee were not close to P.W. Botha and it was unlikely that Botha would have allowed them to make important decisions.⁵³⁶

Phase 4: The Normalisation Phase (September 1991-1993)

This phase saw the completion of the production of two "new crowd control incapacitants" which were in fact MDMA and methaqualone. At the same time South Africa became a signatory to the Chemical Weapons Convention in Geneva on 14 January 1993.

Project Coast was officially closed at a meeting of the Co-ordinating Management Committee in January 1995.⁵³⁷

After privatisation Delta G Scientific produced almost a ton of MDMA, and continued work on the weaponization of CR. Project Coast was officially closed in January 1995. The bulk of the CBW related work at Delta G Scientific was conducted in the ten-year period 1981-1991. RRL, which started operating in 1983, conducted its work for a shorter period of time. During that time no significant scientific breakthroughs were made at either company in the field of chemical and biological warfare.⁵³⁸

ALLEGATIONS OF FRAUD: THE SALE OF DELTA G SCIENTIFIC AND RRL

In his opening address in the criminal case against Wouter Basson, State prosecutor Anton Ackerman told the court that Basson saw himself as an international businessman with a personal empire in five areas: property; finance; trading; scientific/production/research; and investment. All of these, the prosecution claimed, were bankrolled from Project Coast funds.⁵³⁹

Ackerman told the court that the prosecution believed State funds had been siphoned off in various ways. First, he said, Basson set up an extensive network of companies in South Africa and abroad. At all times, confidantes appointed as executive officers acted as Basson's nominees. Funds channelled to fixed deposit accounts abroad served as "performance bonds" or security for the purchase of commodities. The prosecutors maintained that loans acquired against such collateral had been used by Basson for personal gain. Bank accounts were opened in the name of existing SADF front companies (or alleged fronts known to suppliers) and funds due to the SADF were channelled, according to the prosecution, through second accounts for Basson's personal use.⁵⁴⁰

The State claimed that towards the end of 1986, Basson established three companies in the Cayman Islands: WPW Investments Inc., PCM International Inc., and Medchem Inc. Basson's United States friend and business associate David Webster was instrumental in establishing and dealing with the companies. In each case, Basson was vice-president of the companies.⁵⁴¹

The multitude of companies were restructured often, sometimes on an annual basis and their names were frequently changed. Broadly speaking, the companies operating outside South Africa fell under the holding company WPW Investments; those that operated internally came under the umbrella of the Wisdom group.⁵⁴²

The prosecutors argued that Basson had a close group of trusted associates who took care of the running of the business, most of whom were employed by fronts of Project Coast⁵⁴³ and who included:

Antoinette Lourens	Employed by Inffadel
Tjaart Viljoen	Employed by Inffadel and RRL
Wynand Swanepoel	MD of RRL
Philip Mijburgh	MD of Delta G Scientific
Samuel Bosch	Former banker at Nedbank
Adv. Christopher Marlow	Legal advisor to Delta G Scientific and Project Coast

Basson argued against the State's claims, saying that because Project Coast relied on the import of substances and equipment, SADF funds for this purpose had to be laundered to avoid international detection. He said that his role in the procurement process was of such importance that he had no choice but to masquerade as an international businessman. His legal defence team said that the companies established abroad were used to launder SADF funds in the interests of the SADF. The fact that the companies never made a profit and that the business deals usually resulted in a loss only proved, according to the defence, that they were never intended to be profitable and had only been established to hide the origin of Project Coast's funds. The State, on the other hand, argued that the intention was to make a profit, but that Basson and his colleagues were poor businessmen.

According to the report of forensic auditor Hennie Bruwer, the WPW Group of companies was established in October 1986, at the time when WPW Investments Incorporated was registered in the Cayman Islands. The latter was alleged by the State to have been the holding company of Basson's international financial interests. Bruwer said that Basson's interests in South Africa were initially held by a controlling company Wisdom Investments and Properties—the founding company for what became the Wisdom Group, referred to extensively in Bruwer's report.⁵⁴⁴

At the time of setting up WPW Investments Inc. in the Cayman Islands, two other companies were established: PCM International Inc. and Medchem Inc. In tracing the financial records of the companies in the Wisdom Group, Bruwer found that the names of the companies and the shareholders changed regularly.⁵⁴⁵ Basson explained the establishment of

the three different groups of companies, saying that he had realised during his initial discussions with his financial principals (see “The Criminal Trial of Dr Wouter Basson” for more detail about the financial principals) that they comprised three distinct groups, his perception of the groups motivated him to set up three different corporations—one for the Libyans (WPW), one for the East Germans (MCI) and one for the Russians (PCM).⁵⁴⁶

Documents found in possession of David Webster showed that at one stage WPW Inc. had a 50 per cent interest in Medchem Consolidated Investments, which in turn had a 75 per cent interest in Delta G Scientific. Using available documents, the auditor extrapolated that this arrangement must have been implemented between April 1990 and August 1991, before the final privatisation of the company. The register of companies confirmed that for three months in 1989 Medchem Consolidated Investments was owned by Christopher Marlow, and thereafter by Philip Mijburgh.⁵⁴⁷ The Judge found that WPW did not have an interest in Medchem Consolidated Investments.⁵⁴⁸

The Wisdom Group was mainly funded through loans from WPW Investments Inc., which were channelled by the South African holding company to Wisdom Investments and Properties, allegedly established as the property division of Basson’s empire in 1988 by Tjaart Viljoen. Wisdom Investments and Properties had three affiliates: Wisdom Finance; Wisdom Erf 1219 and Aeromed Services.⁵⁴⁹

Another group of companies, Medchem, fell under the umbrella of Medchem Consolidated Investments. Dr Philip Mijburgh, close friend of Basson and nephew of Magnus Malan (Minister of Defence for the greater part of the period under review), was the managing director of this company. Dr Johan Koekemoer testified at the TRC hearing that between February 1992 and January 1993 he delivered MDMA to Medchem Consolidated Investments. The delivery notes for the MDMA were made out to Kowalski International.⁵⁵⁰ Mijburgh testified that this had been done for tax purposes; he also said that both Delta G and Kowalski were subsidiaries of Medchem Consolidated Investments. The Medchem group included Medchem Technologies which, according to Mijburgh’s testimony to the TRC, changed its name to Data Images, the company responsible for capturing all the technical data of the CBW programme on optical disk.⁵⁵¹

Mijburgh was also director of a number of other companies in the Medchem group, including Ecotox (formerly named Maison de Medchem), Trudid Investments, and Medchem Sports International (which purchased property at the Fancourt Golf Development). He was a shareholder in other companies, many of them which held contracts with the SADF.⁵⁵² Mijburgh also had interests in Medchem Pharmaceuticals, Lifestyle Management and Protechnik.⁵⁵³

The agreements involving the privatisation of Delta G Scientific and RRL were the subject of Charges 23 and 24 in the indictment of Basson. Basson and Mijburgh were accused of having benefited from the privatisation of the company. Basson and Wynand Swanepoel were accused of having benefited from the privatisation of RRL. The State alleged Mijburgh, Swanepoel and Basson had communal business interests which Basson didn't declare when the privatisation scheme was presented for authorization. Swanepoel and Mijburgh were not charged and therefore did not have an opportunity to defend themselves against the allegations. As a result, a final conclusion cannot be made regarding their role in the privatisation. Basson was found not guilty on these charges by the Judge who stated that the privatisation of the companies was done openly. The calculations were done by the buyers and the scheme was presented to the Inspector-General and the State advocate. The Judge said that the scheme was presented to different ministers for approval and they examined and approved it.⁵⁵⁴

The privatisation of Delta G took place following a letter from the Chief of the Defence Force, Gen. A.J. (Kat) Liebenberg to the Minister of Defence, Gen. Magnus Malan. In the letter, Liebenberg gave reasons for the immediate privatisation of Delta G Scientific and proposed how this might be done.⁵⁵⁵ Liebenberg explained that in 1989 the Defence Force needed to create a distance between itself and Delta G, and therefore Medchem Consolidated Investments had come into Delta G as a majority shareholder. He said that the long-term plan was to enable Delta G to commercialise through the gradual withdrawal of the SADF "when an acceptable level of technological development had been reached in terms of CW research and development".⁵⁵⁶

Liebenberg said that the government would find it difficult to deal with questions which could arise concerning the front company Delta G Scientific. He suggested therefore that all official research programmes be

concluded in 1991 and all SADF links to the ownership of the company should be severed. Liebenberg stated that it would be best if the process of withdrawal from Delta G could be completed before Magnus Malan ended his term of office at the end of August that year and proposed that the withdrawal of the State should be secretly managed by Medchem Consolidated Investments.⁵⁵⁷

Liebenberg also said that the greatest problem with regard to the change of ownership of Delta G was that a new owner would be able to deduce the previous activities of the facility and security would be breached if a buyer from the chemical industry were sought. This problem, he suggested, could be overcome if the existing shareholders were to purchase the company, but they could not persuade a bank to finance the purchase. Liebenberg argued that the only option, therefore, would be to cancel all research contracts with Delta G and carry over ownership to the shareholders.⁵⁵⁸

Delta G was valued at the time at R20 million. On Basson's advice, Liebenberg argued that it should be sold at a 40 per cent discount. He pointed out that the State had an interest in the company through a R12 million secured loan and that breaking ties with the company would result in the severance of the loan. The Defence Force would have to pay Medchem Consolidated Investments for the contracts it would terminate.

It was then proposed that:

- All contracts with the SADF should be ended;
- The contracts to be paid out for a 5-year period would amount to R37 million;
- A 33 per cent discount should be offered on the outstanding loan amount owed by Medchem to D. John Truter Financial Consultants, leaving R8 million owing;
- The land and buildings should be sold for an amount of R14 million;
- Medchem should be allowed to pay off the outstanding loan amount immediately with the cancellation payment;
- Delta G should be allowed to purchase the land and the property holding company at a discount;
- The control which the SADF had over the Philip Mijburgh Family Trust with regard to the appointment of trustees should be ended.⁵⁵⁹

The result of this proposal, approved at a meeting in Magnus Malan's Cape Town office in April 1990, was that Philip Mijburgh was authorised to take over the facility with R15 million in hand in the form of a payment to the company of which he was director, Medchem Consolidated Investments.⁵⁶⁰ Present at this meeting were the Minister of Defence, Gen. Magnus Malan; the Minister of Finance, Barend du Plessis; then Auditor-General Peter Wronsley (since deceased); Chief of Staff, Finance, Admiral Bekker; Jannie Geldenhuys; auditor Pierre Theron; Gen. Niel Knobel; Wouter Basson; and Wally van Heerden of the auditor-general's staff. In his testimony to the Basson trial, Barend Du Plessis said that he had only been in office for a short period of time before being confronted with privatisation of the front companies and that he had relied on information given to him by the Auditor-General. He said he had not been informed that Philip Mijburgh was related to Malan, nor that Basson stood to gain from the deal through his interests in Medchem Consolidated Investments.⁵⁶¹

A similar proposal was made with regard to the sale of RRL, also in the form of a letter from Liebenberg to Malan.⁵⁶² The letter stated that RRL was fully functional by the end of 1988 and that until January 1989 the management of Project Coast had a direct role in the direction of the company through attendance at directors' meetings, but that this had been stopped for security reasons.⁵⁶³ From the beginning of the 1989 financial year indirect control was exercised through monthly meetings and consultations with the managing director. The letter claimed that RRL attracted attention from the private sector and, although no links to the State could be proved, the situation created considerable stress for the management of the company. This was a strange claim in the light of the fact that RRL actively sought contracts from the private sector.

The proposal states that until the end of the 1989 financial year all financing of the company had been undertaken by the SADF and there were no profits or losses registered. Very little income was earned from other sources such as private sector contracts. From the beginning of the 1989/90 financial year the system of financing was changed and formal contracts were entered into. The total loan amount made available to the company at that stage had been fixed at R22,469,000.⁵⁶⁴

Liebenberg's letter further states that it was almost impossible to sell RRL or to bring in partners from the biological industry. In October 1990

RRL was restructured and two companies formed, one to own the land and buildings and the other to own the equipment and production facilities. Liebenberg proposed that the company should be privatised, but with the precaution that it was essential that the new owners have a positive attitude towards the SADF. He proposed that the key people within the company should remain involved.

At the time, the three directors (Schalk van Rensburg, André Immelman, and Dawid W. Spamer) each had a 20 per cent share in the company while the Managing Director (Wynand Swanepoel) had a 40 per cent share. It was proposed that the company be taken over by van Zyl and Partners (Pty) Ltd. and the RRL Employees Trust. In terms of this arrangement, Van Zyl and Partners would have 75 per cent share and the employees a 25 per cent share. Swanepoel was named as the owner of Van Zyl and Partners. Basson and Liebenberg agreed that the interests of the SADF would be protected by Swanepoel's holding of the controlling shares.⁵⁶⁵

The State, which had an outstanding loan to RRL of R12.25 million, allowed Swanepoel's company to take over the loan, to be paid back over a period of eight years, the first three years interest-free. It was agreed that the facility would be rented from the company which had been established to own the property. This proposal was accepted by the Minister of Defence, Magnus Malan, and the Minister of Finance, Barend Du Plessis.⁵⁶⁶

In the end, R18 million was available, and paid out to shareholders as follows:⁵⁶⁷

Contrasida Holdings (WP Swanepoel)	R4,671,677
Wynand Swanepoel Trust	R4,488,474
A. Immelman	R2,334,940
D.W. Spamer	R2,334,940
D.S. Van der Merwe	R1,257,275
P. Delpont	R718,443
J.J. Nieuwenhuis	R589,700
J. Davies	R589,700
S. Wandrag	R589,700
J.J. Hendriks	R359,221

A question remains about why the manufacture of Ecstasy, on order from Gen. Knobel, continued into 1993, after research contracts with Delta G had officially been concluded.

Delta G was eventually sold to a subsidiary of the multinational Dow Chemicals. The facility has since been closed down. RRL was purchased by the Department of Agriculture and currently houses the Plant Protection Research Institute of the Agricultural Research Council.

THE INTENTION OF THE PROGRAMME

A defensive chemical and biological warfare programme would be defined as one which focuses on the development of protective clothing and on the training of soldiers to withstand CBW attacks. The Project Manager, Gen. Knobel, described Project Coast as having been defensive.⁵⁶⁸ Basson described the programme as having been both defensive and offensive, and he exaggerated the offensive nature of the programme when he needed to motivate the way in which the front companies should be privatised.⁵⁶⁹ It is useful to understand the original intention of the programme and to evaluate whether the original intention changed over time.

A formerly top secret military document, authored by Basson, explicitly mentions the offensive intention of the programme:

“Objective 4

(c) To conduct research with regard to basic aspects of chemical warfare (offensive)

(d) To conduct research with regard to basic aspects of biological warfare (offensive)...

(h) To conduct research with regard to covert as well as conventional systems...

Objective 6: To establish an industrial capacity with regard to the production of offensive and defensive CBW equipment...

Objective 7: to give operational and technical CBW support (offensive and defensive). This is usually divided into two sections:

a. Conventional. This kind of support usually entails supplying equipment (offensive and defensive) that has not yet been cleared for use by standard procedures. This includes storage of the equipment.

b. Covert. This support is given to the Commanding General Special Forces and his organisations, Chief of Staff Intelligence and his organisations and the SA Police and National Intelligence. This service includes the preparation of equipment, training with the equipment, transporting the equipment as well as support during application.

Objective 8. Conducting own CBW operations. This is similar to covert support, except for the use of own operators due to access and other circumstances.⁵⁷⁰

UITERS GEHEIM

Kopie no ./ van 4 kopieë
GG/UG/302/6/COAST/BFW

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0046
28 November 1989

PROJEK COAST: MOONTLIKHEDE VIR PRIVATISERING

AGTERGROND

1. Projek COAST is in 1982 geloods met die aanvanklike opdrag om 'n Chemiese en Biologiese Oorlogvoeringsvermoë (CBO-vermoë) vir die SAW daar te stel. Hierdie opdrag is in fases uitgevoer, beginnende met 'n ondersoek na die elemente van 'n CBO-stelsel en die implementering van hierdie stelsel vir die Verdedigingsfamilie.

2. Deur die jare, soos die ondersoeke afgehandel is, is toestemming vir implementering vanaf ide bestuurskomitee van COAST ('n verkleinde VBR) verkry. Hierdie ontwikkeling het daartoe gelei dat Projek COAST as't ware 'n versameling van diverse projekte is wat in versillende stadia van ontwikkeling en afhandeling is. Hierdie element van die projek korreleer met die oorspronklike elemente van die projek soos in die aanvanklike ondersoek vasgestel. Hierdie elemente verwesentlik in 'n aantal doelstellings vir Projek COAST. Hierdie doelstellings is in 1988 opdateer en deur die HSAW goedgekeur.

3. Om sinvol te besin oor die toekoms is dit dus nodig om die verskillende subelemente van die projek in afsondering te bestudeer. Privatisering van sekere elemente sal minder invloed hê op die ontwikkeling van die projek as ander.

...

On biological research the document says:

“Current biological warfare research focuses on offensive, epidemic agents. The researchers are also working on the development of new agents. The research amounts to about R8 million per year. No ammunition is being produced at this stage”.⁵⁷¹

Basson describes research on offensive systems—both conventional and covert:

“The aim of this research is to create a bridge between the agent on the one side and the ammunition on the other. Researchers are trying to develop the best possible distribution techniques for the agent. Because it is important that the source of the agent has to, at all costs, remain a secret to the developer of the ammunition, Brig. W. Basson acts as the intermediary in this process. For the development of conventional weapons, projects are undertaken in co-operation with Swartklip Products (a branch of Armscor). A number of small companies are used for covert work, e.g. QB Laboratories (Pty) Ltd and others with clearance”.⁵⁷²

Gen. Knobel maintained that offensive work was unthinkable. He told President Mandela in 1994 that:

“As an offensive option for the SADF, BW were considered too dangerous because of the difficulty in controlling the spread of the organisms, and in any case would be ethically and morally unacceptable. For these reasons it was decided that the SADF would only undertake extensive research into the BW threat possibilities and concentrate on countermeasures in case of the possible manipulation of local organisms by hostile parties”.⁵⁷³

The statements of Knobel and Basson are contradictory and cannot be reconciled.

Judge Hartzenberg made reference in the Basson trial to the programme’s intentions in a judgment given on 16 February 2000 in response to an application for his recusal by the prosecution. In turning down the application, Judge Hartzenberg stated that it was common cause (agreed by all parties in court) that Basson was ordered to develop both an offensive and defensive CBW capacity for South Africa.⁵⁷⁴ In contrast, two years earlier, Gen. Knobel had told the TRC hearing:

“It was spelt out very clearly that in this project we would not embark on creating an offensive capability with classical lethal chemical weapons and therefore I can declare quite emphatically to you that at no time were classical chemical, or for that matter, biological weapons developed, weaponised with delivery systems and there was no intent ever to use any of those weapons on the battlefield. The philosophy allowed us to consider a second category namely incapacitating agents and a third category namely irritating agents”.⁵⁷⁵

In this statement Gen. Knobel implied that lethal chemical weapons are the only category of “classical” chemical weapons and, therefore, the South African programme’s focus on incapacitating and irritating agents meant that it was not developing an offensive programme. This is misleading. Incapacitating agents and irritating agents are chemical agents. Gen. Knobel placed emphasis on the development of the dual-use irritating agent CR which was weaponised. This, he argued, would have been considered for use in retaliation in terms of the 1925 Geneva Protocol.⁵⁷⁶

With regard to biological agents, Gen. Knobel stated that: “at no time was it ever considered to develop a biological warfare offensive capability ... and therefore all the organisms and toxins that were studied were never considered either for weaponization or for delivery systems and there was no intent ever to use them”.⁵⁷⁷ This contradicts the aims of the project which stated an intention to develop a research and development capability as well as a production capacity for biological agents.⁵⁷⁸

Whilst no evidence of large scale production of biological agents or weapons was found, sufficient quantities of agents were found which could have caused disease in whole communities. These agents, such as *Vibrio cholera*, would not have required weapons as delivery systems in order for them to have been used.

Gen. Knobel’s assertion to the TRC that South Africa was only involved in the production and weaponization of incapacitants and irritants is further contradicted by a document he wrote after Basson was arrested in Switzerland in 1993. Knobel wrote: “Initially products and weapons were developed that included all classes of agents, i.e. irritants, incapacitants and lethal agents”.⁵⁷⁹ No evidence for this claim has been found.

The reasons originally given for the development of Project Coast were twofold: the need for alternative crowd control agents and the need to counter the threat posed by the Soviet-backed Cuban forces in Angola. It is significant that the programme did not concentrate on defensive CBW issues until five years after the programme began. Instead, the programme spent a great deal of time and money on developing inappropriate crowd control agents and small quantities of biological weapons designed for assassinations.

INCIDENTS OF POISONING

- 1977 A T-shirt received in the post by Donald Woods for his five-year old daughter, Mary, was impregnated with Ninhydrin, a powder that stung on contact and which is used by police forces worldwide to trace fingerprints on paper.⁵⁸⁰
- 1977 The ANC submission to the Truth and Reconciliation Commission claims that poisoned food was fed to about 500 cadres in the Catengue camp, Angola, in 1977. They were saved by the timely intervention of a doctor. The perpetrators were allegedly uncovered in 1981, one of whom, Kenneth Mahamba, commander of Pango camp, was found to have been recruited by the security police in 1976.⁵⁸¹
- 1979 A United Nations report said that South Africa used paralyzing gas during an attack in 1978 on the Angolan town of Cassinga.⁵⁸² The attack was said to have taken place on 4 May 1978. South African military officials denied that chemical weapons had been used or that South African possessed such weapons.⁵⁸³
- 1979/80 Testimony in the trial of Wouter Basson⁵⁸⁴ alleges that between 1979 and 1980 the SADF became concerned that too many SWAPO soldiers had been detained as the result of the SADF's pseudo operations and that the SWAPO prisoners of war were murdered. J.J. Theron said he was supplied with quantities of Tubarine and Scoline, muscle relaxants which in overdose would cause suffocation. Later the anesthetic Ketalar was also supplied to Theron. Theron estimates that he caused the death of "hundreds" of SWAPO members in this way.^{585 586}
- Theron alleged that he and Basson gave pills to 5 men detained at Fort Rev in the former South West Africa. They allegedly

watched the men through a one-way window and saw that the men hid the tablets rather than taking them. Basson, Theron maintains, went into the cell and convinced the men to take the tablets, which they then did. They fell asleep and Basson and Theron apparently entered the cell and injected the men with the muscle relaxants. Theron alleges that Basson used the opportunity to see that he was injecting correctly.⁵⁸⁷ Basson denied Theron's allegations of his (Basson's) involvement. The Judge later found that Theron's testimony was not reliable and that Basson had not accompanied Theron to Fort Rev, he found, however, that Theron's testimony of his own involvement in murder was believable.⁵⁸⁸

- 1980 November: Barnacle⁵⁸⁹ operator Trevor Floyd was informed by his commanding officer that another Barnacle operator posed a security threat to the unit because he had been making calls to Zimbabwe from his Barnacle phone. The operator and three other unidentified victims were given lethal injections.⁵⁹⁰

Alleged poisonings 1981-1987

- 1981 South African Police detainee, Sipiwo Mtimkulu, was hospitalised shortly after his release from prison and found to have been poisoned with thallium. Mtimkulu subsequently sued the police, but before his case could be heard, he mysteriously disappeared together with a friend, Topsy Madaka.⁵⁹¹
- 1981 On the morning on which Griffiths Mxenge was to be assassinated at his home in Durban, he had been woken up by his children's screams. One of his bull terriers lay dead on the lawn, the other subsequently died that morning at the vet. Both had been poisoned with strychnine.⁵⁹²
- 1981 Former Vlakplaas Commander, Dirk Coetzee, allegedly asked a security police agent to murder Joe Slovo in London with poison. The plan was to smuggle poison into the United Kingdom, arrange to meet Slovo and attempt to put the substance in his drink.⁵⁹³

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- 1981 In August, Coetzee allegedly obtained “knock-out drops” which were given to detainee Gonisizwe Kondile before he was murdered near Komatipoort. As was common in these operations, his body was burnt while the security police had a barbecue (braai). This was one of the murders for which Coetzee applied for amnesty.⁵⁹⁴
- 1981 December: Dirk Coetzee was allegedly given “knock-out drops” to be placed in the drink of an ANC member named “General” in Swaziland. Although “General’s” driver was knocked out, he remained on his feet”. Askari⁵⁹⁵ Almond Nofemela attempted unsuccessfully to kidnap him by force.⁵⁹⁶
- 1981 Dirk Coetzee was allegedly given “knock-out drops” and “poison” for the purpose of killing Selby Mavuso, and Peter Dlamini.⁵⁹⁷
- 1982 The ANC submission to the TRC lists member, Mandla Msibi, as having died sometime during 1982 of poisoning in Swaziland⁵⁹⁸
- 1983 December/January: The London-published South African anti-conscription journal, Resister, published an article in which an SADF informant claimed that the SADF used and developed chemical and biological weapons. These included morphine and scopolamine in the interrogation of Namibian detainees; nerve gas artillery shells [tentatively identified as Sarin, a nerve gas]; and carrying out research into a biological “race weapon” to which black people would be more susceptible than whites.⁵⁹⁹
- 1983 CCB operator, Danie Phaal, claimed that some time between 1983 and 1986 he was given a bottle of poison and told to mix the poison with orange juice and give it to a victim who was held in detention in Ondangwa, Namibia. Phaal believes the man was a SWAPO member. Phaal gave the man the contaminated drink and the following day the man showed signs of blood loss: “there was blood on his calves, blood on the toilet bowl and on the cell floor”. The man was rushed to

hospital. Some time afterwards Phaal was allegedly told that the victim had died.⁶⁰⁰

- 1983 Dr Kobus Bothma and Barnacle operator Johan Theron were given Tubarine, Scoline and Ketalar with which to inject 3 men identified as targets for elimination. Theron and Bothma rubbed a jelly-like substance on the men's skin before they were injected with an over-dose of the muscle relaxants. The substance failed to kill the men, but they died from the overdose of muscle relaxants. Their bodies were loaded in an aircraft and thrown out over the sea.⁶⁰¹
- 1983 Barnacle operators Danie Phaal and Trevor Floyd testified to having murdered a fellow Barnacle operator known only as Christopher, by injecting him with the anesthetic ketelar.⁶⁰²
- 1983 SADF Reconnaissance unit soldier (formerly from Rhodesia) Garth Bailey died at 1 Military Hospital. His clinical and post-mortem records state myasthenia gravis of sudden onset as the cause of death. However, his death might equally be explained by poisoning with botulinum toxin; a conclusion based on the clinical record, consultation by the authors with a leading British neurologist and information given to the authors by his family.⁶⁰³
- 1985 According to the testimony of Barnacle operator Trevor Floyd, Gen. Liebenberg (former Chief of Special Forces) allegedly ordered him to murder Peter Kalangula in South West Africa with a toxic substance that Floyd claims was provided by Basson. The substance was to be smeared on the door handle of Kalangula's vehicle. The substance, gloves, and an antidote were allegedly handed to Floyd by Basson. Floyd did not carry out the instruction.⁶⁰⁴ Basson's defence advocate disputed the events as described by Floyd during argument in support of the acquittal of charges against Basson. Basson was found not guilty on all charges against him.
- 1986 An unnamed member of 5 Reconnaissance Regiment was allegedly identified as a security risk. The victim was given a soft drink containing something to make him sleep and was then

- injected with Tuberine and Scoline. His body was allegedly loaded in an aircraft and thrown out over the sea.⁶⁰⁵
- 1986 September: The ANC submission to the TRC lists a member, Themba Ngesi, as having died of poisoning on 21 September in Mozambique. Another member, Samuel Phinda, is also listed as having died of poisoning in Mozambique (date is not specified).⁶⁰⁶
- 1986 Phaal, Basson and Theron are alleged to have discussed the murder of a Special Forces member, Victor de Fonseca. De Fonseca had cancer of the brain and had started talking about Special Forces activities. He was identified as a security risk. Phaal was allegedly given a poison which he put in orange juice. De Fonseca became sick and died a week later in the military hospital, it is not clear whether his death was directly related to the poison allegedly administered.⁶⁰⁷ Basson was acquitted on this charge in a ruling by Judge Hartzenberg in June 2001 who found that there was no evidence to support the claim that De Fonseca had been poisoned and found Phaal's testimony unreliable in so far as he implicated Basson in the incident.⁶⁰⁸
- 1986 December: A Bloemfontein man, Leslie Lesia, who had been manipulated into working for Military Intelligence, was given a package containing 12 beers to deliver to a Military Intelligence agent working at the Russian Embassy in Gaborone. Lesia believed that the agent would distribute the beer among the ANC. Lesia was later trained in the use of explosives and poison. His trainers had a selection of poisons, one of which was a yellowish liquid, which he was told could kill within a week of being administered and was impossible to trace in a post-mortem. He was given four bottles of poison with a signet ring in which poison could be concealed. He was asked to poison any senior ANC officials.⁶⁰⁹ Jan Lourens maintains this was the signet ring he designed and which was manufactured by armourer Phil Morgan.⁶¹⁰
- 1987 January: Journalist Jacques Pauw reports in the book: *The Heart of the Whore* that while Lesia was at Jan Smuts (Johannesburg International) airport with his handlers a man was pointed out

whom he subsequently identified as Lothar Neethling. Lesia was told that he was a high-ranking police official who provided them with poison.⁶¹¹ Lesia is now deceased and this information cannot be verified from other sources.

- 1987 In March, Lesia accompanied "Becker", his handler, to a Pretoria building where they collected one case of brandy, one case of vodka and three cases of beer. Lesia was told the liquor had been spiked with poison. Lesia was given some of the liquor to take to Maputo where he gave them to an ANC official called Siphso. Later at a party he saw ANC member, Gibson Ncube, drinking a South African beer. Following the party, his feet became paralysed. The paralysis spread until he died eight days later.⁶¹² Ncube was also known as Gibson Mondlane.
- 1987 Connie Braam, former head of the Dutch Anti-Apartheid Movement, believes that she was poisoned in two attempts on her life while visiting Lusaka and Harare. She became ill after wearing a jacket which she found in the cupboard in her hotel room.⁶¹³
- 1987 Corporal Mack Anderson, a member of 5 Reconnaissance regiment who had allegedly become a security risk. He allegedly died as the result of the administration of Scoline, Tubarine and Ketalar. The operation was carried out by J.J. Theron and the body loaded in a helicopter and left in the bush in Mozambique.⁶¹⁴
- 1987 Before Petrus Lubane was killed by security police in September, Capt. Prinsloo of the Northern Transvaal Security Branch gave him crushed sleeping tablets in a beer so that when the police detonated explosives attached to his body, he was unconscious.⁶¹⁵
- 1987 In the amnesty hearing into the Nietverdiend Ten incident, in which 10 potential MK recruits were killed, Jack Cronje gave evidence that the 10 men had been abducted under false pretences by Askari Joe Mamasela. After they had been drinking for some time, the minibus in which they were travelling stopped and the men climbed out. A group of special forces

members, disguised with balaclavas, were waiting next to the road. They overpowered the men and while they were lying on the ground injected them with something. Since the operation had by then become a military operation, Cronje could not answer as to whether the injections could have been lethal. After they had been injected the men were put back in the minibus, explosives were loaded in the vehicle and it was set to drive off and explode. The injections were administered by Charl Naude's special forces.⁶¹⁶

- 1987/88 Conspiracy to murder Ronnie Kasrils and Pallo Jordan in London. In the Basson trial, the charge was dropped on the grounds of being out of the jurisdiction of the South African courts, but evidence was heard in relation to the charge because it demonstrated the modus operandi of the Civil Co-operation Bureau. Jan Lourens allegedly handed Trevor Floyd a screwdriver applicator as well as ampoules of what is believed to have been phenylsilitrane in London. An opportunity did not arise to administer the toxin. Floyd disposed of the poison and applicator in the Thames.⁶¹⁷

Alleged poisonings: 1988-1993

- 1989 May-June: Conspiracy to murder Enoch Dlamini through the administration of poison that had been placed in a beer can. The poison was allegedly provided to Directorate of Covert Collection operator, Jan Anton Nieuwoudt.⁶¹⁸ Beer was contaminated, allegedly by Special Forces via the liaison officer, a Commander Dirk Booysen. The beer was then given to the agent who reported to Nieuwoudt that Dlamini had drunk it. Nieuwoudt confirmed that Dlamini had died a few days after being discharged.⁶¹⁹
- 1989 April: attempted murder of anti-apartheid leader, Rev. Frank Chikane. According to André Immelman's testimony in the Basson trial, he gave an amount of paraoxon to people later identified as members of the South African police and explained to them how to apply it to clothing. It is not known whether this was the organophosphate used to contaminate Rev Frank Chikane's underwear.⁶²⁰

- 1989 Members of the CCB were allegedly given a vial of *Vibrio cholera* and a vial of yellow fever virus with which to contaminate the water supply of a SWAPO camp. The intention was to disrupt the Namibian elections. The cholera was allegedly handed to CCB members by Dr André Immelman.⁶²¹
- 1989 Conspiracy to murder ANC leader Dullah Omar by placing a toxic substance in his food which would result in a heart attack. The operation, to be conducted by members of the Civil Co-operation Bureau, was not carried out.⁶²²
- 1989 The CCB allegedly planned to kill Durban attorney, Kwenza Mlaba, who they suspected was a senior member of the ANC providing funds for Umkhonto we Sizwe and running couriers. A rough plan, handed in as evidence to the Harms Commission, suggested leaving a sealed bag of poisoned razor blades and a razor in Mlaba's office in the hope that he would use them. Referring to assassinations more generally, CCB operator Pieter Botes said that "In some cases, we were told to use so-called soft measures to kill opponents. It usually meant using poison, which was freely available and used by many operatives".⁶²³
- 1989 South African Police Koevoet unit, stationed in Namibia, was in possession of tins of food poisoned with thallium which they obtained from Rhodesian forces in 1979/1980. When Koevoet was disbanded in 1989, these tins were meant to be destroyed but instead were consumed by members of the unit, who were poisoned.⁶²⁴ Delta G Scientific chemist, Dr Johan Koekemoer was allegedly instructed by Basson to make a large quantity of Prussian Blue as an antidote.⁶²⁵
- 1989 RRL researcher, Mike Odendaal, was allegedly asked for salmonella which he was told would be added to the sugar used at an ANC meeting. Odendaal believed the meeting took place in Soweto, and was told afterwards that the salmonella had "worked very well" and that all the delegates had fallen ill.⁶²⁶
- 1991/92 Former CCB operator Danie Phaal testified that he was offered a consignment of poisoned beer to distribute at taxi ranks in the Eastern Cape. Although Phaal agreed to carry out the operation

he deliberately failed to meet the people who were sent to deliver the beer. The operation was not carried out.⁶²⁷

- 1992 January: Mozambican authorities claimed that Renamo had used chemical weapons in an attack on 16 January.⁶²⁸ This allegation has never been satisfactorily resolved.⁶²⁹
- 1992 November: Following the raid on the Directorate of Covert Collection (DCC) offices by the Goldstone Commission, the Steyn Commission report claims there was a scurry of DCC members to the office. It was believed that DCC members retrieved bottles and/or tins of beer, spiked with poison. This was investigated by the Goldstone Commission who found that a filing cabinet had been removed and destroyed.⁶³⁰
- 1993 Solly Smith (Sello Setotane), former ANC London representative, was found dead in his bed one week before Chris Hani's assassination. In 1991, he had confessed to the ANC that he had been compromised by Military Intelligence. He died in similar circumstances to Frances Meli, a respected ANC historian and editor of *Sechaba*, who had been similarly compromised. There were allegations at the time that both had been poisoned by Military Intelligence to prevent further exposures of agents.⁶³¹

STRUCTURE AND MANAGEMENT OF PROJECT COAST

Wouter Basson was given an extraordinary amount of freedom to conduct the business of Project Coast. His real reporting was not to the formal structures of the project but rather to informal structures that explicitly avoided the formal chain of command. Be that as it may, the formal structures were responsible for the operation of the project. It is important to understand what structures were established for this purpose.

Political decision-making was the responsibility of the Minister of Defence, who for most of the duration of Project Coast was Gen. Magnus Malan (from October 1980-August 1991). The Chief of the Defence Force reported to the Minister and the heads of the branches of the military reported to the Chief of the Defence Force.⁶³² The nature of top-secret projects such as the nuclear programme, the CBW programme, and the covert units of Special Forces, was such that a minimum number of people were made aware of their existence. For this reason the structure responsible for bridging the gap between the Minister of Defence and the Chief of the Defence Force, the Defence Command Council, did not as a whole discuss top-secret projects. A Reduced Defence Command Council consisting only of those people who had a “need to know” met after the Defence Command Council meetings. These meetings were chaired by the Chief of the Defence Force and usually excluded the Chiefs of the Air Force and Navy.⁶³³

Project Coast was managed by a committee appointed by the Minister of Defence. This committee, the Co-ordinating Management Committee was under the chairmanship of the Chief of the Defence Force. Although the committee was responsible for the project, it was never fully informed of the details. Nevertheless it was the committee’s responsibility to ensure that the project was run efficiently, accountably and according to plan.

The Co-ordinating Management Committee included the Surgeon-General, the Chief of Staff Finance, the Chief of Staff Intelligence and other

co-opted members who became permanent members: the Chief of the Army, the Commanding Officer of Special Forces, and the Chief of the Air Force.⁶³⁴

Members of Armscor and at some stages, representatives of the Auditor-General also took part in meetings.⁶³⁵ As Project Officer, Basson (succeeded in 1993 by Col. Ben Steyn) acted as Secretary to the Coordinating Management Committee. In that role Basson was responsible for all the documentation of the CMC and was the direct link to the front companies.

According to Knobel,⁶³⁶ Basson reported back to the CMC about the achievements of CMC objectives only in broad terms. Knobel justified this to the TRC by saying that the members of the committee did not have either the scientific knowledge or background to deal with the detail of projects. Knobel said that: "There was never an opportunity to really discuss in detail what particular experiments were carried out about the very vast numbers of chemicals that had to be studied".⁶³⁷ This report shows, on the contrary, that there were in fact very few chemicals considered for weaponization. The Committee was not informed about the nature of these chemicals and the intention to weaponise them.

With regard to procurement for the Project, the Judge in the Basson trial reflected on Knobel's testimony saying: "The accused had to take decisions about procurement. The handling of threats to security were left up to him. The suppliers were not to know that they were delivering to the SADF. The SADF did also not want to know who the suppliers were. The CMC did not want to know the detail. The broad guidelines were the following. It did not concern the CMC what happened outside of South Africa. There was not allowed to be self-enrichment. A reasonable summary of the situation was: 'We give the money. You bring the product. It does not matter where you get it. You can buy it on the black market, or through bribery, and if you must, you can steal it.'"⁶³⁸

As explained by Gen. Knobel, the process of authorisation was as follows: The CMC would approve a study of chemical agents, as a broad guideline. The Project Officer would then say: "We are now embarking on the classical lethal chemical weapons. We're going to study 500 different chemicals". The CMC would then say: "What sort of requirements do you need to be able to fulfil that objective, namely to look at all the classical

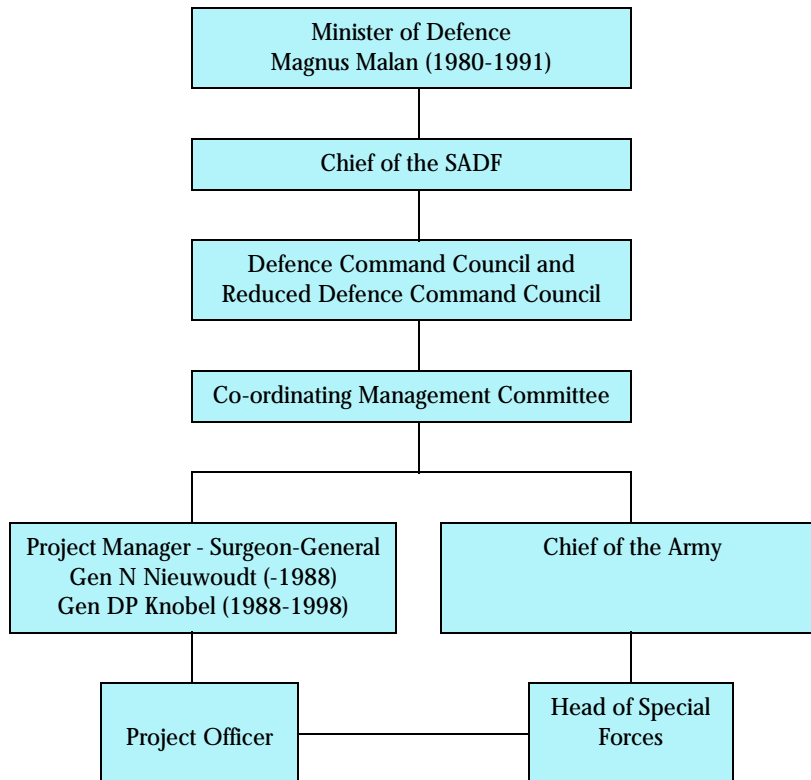
lethal chemical weapons?" The Technical Work Group would then do an estimate of what experimentation would be required, what kind of staff would be required to do that work, what kind of laboratory, etc. They would translate it into budget terms and would come back to the CMC and say: "If we want to do this during this year, we are going to require these resources..."⁶³⁹

According to Knobel, therefore, responsibility for the details of the project lay not with him but with the Technical Working Group which included the Project Officer, the Managing Directors of the front companies, and some of the scientists within those companies. The task of the Technical Working Group was to plan the research for each company. However the group was a fluid concept at best.⁶⁴⁰ The only constant member of this committee was Basson himself. Other members of the Technical Working Group varied from one meeting to the next, depending on the scientists involved. According to Knobel, the reason for this loose arrangement was that scientists working on one sub-project were not supposed to know what their colleagues were researching. In theory, the Technical Working Group involved a meeting between Basson, a scientist with a specific need, and usually the Managing Director of the front company concerned (such as the meeting between Steenkamp, Basson and Mijburgh where Basson was said to have been representing Medresco). This information was to be taken to the CMC by Basson, for approval of expenditure. In reality, scientists at RRL told the authors, meetings with Basson took place seldom⁶⁴¹, and many of the scientists testifying in the case against Basson said they had never even known of the existence of the Technical Working Group. One can conclude that such a structure existed only in name and concept, providing a cover for the less formal structures of command and control.

None of the witnesses who testified at the Truth Commission hearing claimed to know where ultimate control of the project lay. Gen. Knobel, the official Project Manager, said repeatedly that he relied solely on Basson for all his knowledge of the programme. He denied having had any real authority.

Control over Project Coast and Basson was further clouded by the fact that Basson could take orders from any branch of the security forces without the knowledge of Knobel or the Chief of the Defence Force.

Project Coast structures of command and control⁶⁴²



In his testimony to the Truth Commission and in Basson's trial, Knobel said this multiplicity of reporting structures was the reason he knew nothing of the assassination weapons developed. Yet Jan Lourens told the TRC that he informed the Surgeon-General about the production of assassination weapons in 1993:

"Just before I left the organisation (Protechnik), I made an appointment to see General Knobel. I just felt that the project was going wrong, it was going to (sic) strange directions. ... I said [to him] do you bear knowledge of these chemical weapons, these applicators as you call them, that we have been manufacturing? ... General Knobel replied to me, he said I had to bear in mind that as far as the offensive is concerned he bore no

knowledge of it, it's not his project. Wouter had another reporting line".⁶⁴³

Lourens then decided to take his concerns directly to the Minister of Defence, Roelf Meyer. He approached an attorney whom he knew, who had been at university with Meyer. They secured a meeting with the Minister and flew to Cape Town to set the record straight. Meyer would not see Lourens but discussed the matter with his friend and instructed them to speak to the Surgeon-General that same afternoon. Knobel in turn said: "I am not going to talk to you, you are going to have to see Gen. Kat Liebenberg". When they arrived at Liebenberg's office he told them there was no story to be told, his words were: "You must remember those toys are mine, I want them back".⁶⁴⁴ Lourens knew that Liebenberg was referring to the assassination weapons. Instead of handing the weapons back to Liebenberg, Lourens buried them on his farmland. In 1997 they were dug up under the supervision of the Attorney-General who was investigating the case against Basson. It was clear to Lourens that Liebenberg knew about the production of assassination weapons and the process had met with his approval. They were apparently never discussed at any meeting of the CMC or the Reduced Defence Council. Goosen too approached Knobel and informed him of aberrations at RRL.⁶⁴⁵

Gen. Badenhorst discounted the possibility that Knobel would not have known what was going on in a project which he managed.⁶⁴⁶ The result of this denial of responsibility for the programme is plain to see in the two-volume charge sheet of the Basson trial. It becomes clear that there was lack of control by the management structures of the Defence Force.

If managerial control was lacking, financial control was even less. Evidence presented at the TRC and at the Basson trial by Knobel and project auditor, Pierre Theron, suggests that Basson's word was accepted as truth by his superior officers and indeed by the auditor. They imply that Basson was ultimately in control of all aspects of the Project and that the CMC and the financial auditors relied on him for their understanding of the programme. An inverted command system was in place. This does not exempt Basson's superiors from responsibility for the programme. It is instructive to consider the structures in a little more detail.

Apart from the Technical Working group, the CMC had two other sub-committees:⁶⁴⁷

A General Administration and Financial Committee. This committee was under the control of the Project Manager (the Surgeon-General) who was assisted by the Chief of Staff Finance and the Project Officer. It was responsible for broad budgetary planning on behalf of the CMC. After 1990 the financial and budgetary planning was done at the CMC itself so this, sub-committee fell away.

A Security Committee, responsible for the security aspects of the project. The Chief of Staff Intelligence, the Surgeon-General and the Project Officer were involved in this committee, which was responsible for ensuring that the project remained secret. It is likely that this committee existed only in name. Gen. Badenhorst, head of Military Intelligence from 1989-1991, says he never attended any meetings of this committee.⁶⁴⁸ Badenhorst was head of Military Intelligence at the time when the front companies were being privatised and were, therefore, vulnerable to breaches of security. Security decisions must have been made elsewhere. Testimony in the Basson trial indicates that Basson himself was responsible for making decisions pertaining to the security of the Project.⁶⁴⁹

The CMC was an ineffective mechanism for maintaining control. Its members knew very few details about the project, and the committee usually only met on an annual basis. In fact, according to Knobel, after 1981 the CMC only met for budgetary purposes. Instead, Basson was expected to brief the Chief of the Defence Force, Chief of Staff Finance, Chief of Staff Intelligence and the Surgeon-General on a more regular basis, although the frequency and detail of these meetings is unknown. Basson stated during his application for bail that there would often be two or three months when he would not see Knobel at all and would take orders from the Chief of Staff Intelligence or the Commander of Special Forces. He would never inform the Surgeon-General of these operational orders. He also received operational instructions from the Security Police. It would appear that these were also not reported⁶⁵⁰ to Knobel.

Vice-Admiral Murray was appointed Chief of Staff Finance in November 1990. Testifying in the Basson trial, Murray said that soon after his appointment it became clear that the project's finances had not been effectively controlled. On July 2, 1992, Murray wrote to Knobel seeking details of certain past expenditure. He was unhappy with the way Coast had been financially managed: the Coast files at the office of the Chief of Staff Finances did not contain any contracts for Project Coast's acquisitions. All

contracts entered into on behalf of the SADF should have been signed by the Chief of Staff Finance. Murray's department was expected to make payments for Project Coast's contracts for which there were no record.

Murray requested the contracts from Knobel.⁶⁵¹ He received a response from Basson, listing outstanding contracts such as those for research and protective clothing and equipment. This did not satisfy Murray, who wanted the actual contracts, or at the very least, copies of them. He went back to the Surgeon-General with his request, but still did not receive copies of any Project Coast contracts. Various excuses were offered such as: the contracts were locked up in a safe "somewhere"; the only person with access to the contracts was abroad; the contracts had been preserved in a safe place and were not readily available.⁶⁵²

Murray said it was clear to him that correct procedures had not been followed regarding Coast expenditure. However, he was not aware at the time that Military Intelligence had already launched an investigation into alleged irregularities, and learned this only at the end of 1992.⁶⁵³ Murray wrote to Knobel on September 24, 1992, again demanding copies of the contracts and minutes of the CMC meetings at which the contracts were approved. By this time he had received a letter from the Auditor-General's office expressing concern over the project's finances.⁶⁵⁴

Murray said none of Knobel's responses was satisfactory.⁶⁵⁵ This led to a meeting, in 1992, at the Military Intelligence training college, at which Knobel was closely questioned by the Head of the SADF, the Chief of Staff Finances and the Chief of Staff Intelligence.⁶⁵⁶ Murray claims that by the time the meeting took place, no one involved in the control of SADF finances was satisfied with the way in which Project Coast had been managed. The Auditor-General's office too had tried, and failed, to obtain minutes of the CMC meetings.

A letter to Murray from Knobel dated November 10, 1992, stated that CMC minutes did exist. The letter, written by Basson, stated that the "CMC meets two or three times a year to approve the broad guidelines of the project in relation to the budget approved by the Chief of the SADF, Chief of Staff Finances and the Surgeon-General. There would thus be no point to perusing the CMC minutes". Basson referred Murray to the project budget and the audit reports.⁶⁵⁷ Basson claimed that the CMC did meet

before 1992 and there were minutes to prove it. Yet it was impossible for anyone, even the Chief of Staff Finance, to get copies of these minutes.

Whether the CMC did or did not meet in the years preceding 1992 cannot be verified. It is possible that no such meetings were held. After his appointment as Project Officer in 1981, Basson was under the command of the Surgeon-General and had to report to him on all medical and related activities. He was also under the operational control of the Commanding Officer Special Forces from March 1981 and all his military activities were authorised from that office. In addition the products delivered by Project Coast were determined by the end user, and instructions given directly to Basson by the end-user. This could have been the Minister of Defence, the Head of the Defence Force, the Commanding Officer Special Forces, the Chief of Staff Information, the Commissioner of the South African Police, the Commanding General of the South African Police, the Director-General of the National Intelligence Service, and the Chief of the Army.⁶⁵⁸

To make matters more obscure, Basson's defence team told the court during the cross-examination of Gen. Knobel, that Gen. A.J. (Kat) Liebenberg, erstwhile Special Forces commander and Chief of the Army, had paid scant regard to the SADF chain of command and that on becoming Chief of the SADF, Liebenberg had used Basson as his personal soldier. At times, Knobel admitted, while Liebenberg was chairman of the CMC, Liebenberg would adjourn meetings to hold private conversations with Basson.⁶⁵⁹

Knobel told the TRC that these multiple reporting structures were of concern to him. He said that he had once raised this concern with the Chief of the Defence Force, Gen. Jannie Geldenhuys. But, according to Knobel, nothing changed. When Basson was given an operational command by anyone, the CMC allegedly only came to know about it after the fact.⁶⁶⁰

An example of the confusion in reporting structures was provided by Knobel in his testimony at the Basson trial. Knobel spoke of a National Security Management System meeting in 1987, attended by Magnus Malan—Minister of Defence, Adriaan Vlok—Minister of Law and Order, Police Commissioner Johan Coetzee, Security Police chief Johan van der Merwe, National Intelligence Service Director-General Niel Barnard, and SADF Chief of Staff Operations van Loggerenberg. Although Knobel was not yet Surgeon-General, he represented the Surgeon-General, Gen.

Nieuwoudt, at the meeting. He was “extremely surprised” when Malan told the meeting that Wouter Basson was to brief them on potential riot control methods and the new generation teargas. Project Coast was such a closely guarded secret at the time, said Knobel, that he believed no other State department knew of its existence. Even more disturbing for Knobel was Malan’s instruction to the meeting that should any branch of the security forces need the product (CR), they should contact Basson directly. He would also be able to advise them on the most effective use of the new generation teargas (NGT) and about protective measures to be taken. This “worried” Knobel a great deal—in his mind it exposed Basson on too broad a front. However, when he raised his objections with Nieuwoudt, he was told the Defence Minister had made his decision. This shows that even the Minister of Defence apparently showed scant regard for structures of command and control which could ensure accountability.

The secrecy of the programme and the necessity to ensure that nothing could be traced back to the SADF ensured that Basson was never questioned. This was particularly true of the financial arrangements of the programme. Basson explained the process of financial control to the TRC in the following way:

“The basic process of financial control in the South African Defence Force and specifically Project Coast, worked as follows. Annually there was a budget meeting and during this budget meeting certain goals and objectives were approved and specific amounts of money were allocated to them. After these amounts were allocated, the projects for the year were then further implemented. When the money was needed for a specific goal, the CMC or the financial management work group got together and if the amount was above a certain level, I can’t remember the level, then approval was once again given that this amount of money be spent. Now if this amount had to be spent, General Knobel wrote an authorisation where he authorises the spending of the amount of money. If the spending of that money was authorised, then I could have taken that authorisation to the financial official of the project, and then he could get the funds to flow. I had no signing authorisation, there was no way for me to control it. If there were transfers abroad, then we received authorisation from the South African Reserve Bank. The CMC went to the South African Reserve Bank to explain to the officials why the money was needed, in broad terms of course with regards to the secrecy, and to make sure that it’s an official state transfer through the proper channels. After this was done, the financial official then went back and the funds were then spent.

Once again I'd like to say I did not have control over millions of dollars, I couldn't pick up the phone and do transfers or arrange transfers, I couldn't just phone people and give them codes, there was quite an integrated approval process. I concede that at certain times when certain operational decisions were made quickly, I did have some discretion, but those discretions was (sic) not unapproved, and if I used my own discretion, it was approved *de facto*".⁶⁶¹

Gen. R. (Witkop) Badenhorst explained the situation differently. He said that when he took over the position of Chief of Staff Intelligence in April 1989 he found that Military Intelligence was responsible for controlling the budgets of secret projects. Military Intelligence paid the annual budgets for these projects to the project officers, who would spend it at their discretion. In the case of Project Coast, millions of rand from the secret defence account were transferred to foreign bank accounts by a junior officer on the strength of Knobel or Basson's signatures.⁶⁶² Instructions for transfers, Badenhorst said, contained no more information than an order to transfer a specific amount to a designated foreign bank account. There was no motivation for the expenditure and Military Intelligence could not control what happened to the funds after transfer.

To Badenhorst this was not acceptable from an auditing point of view.⁶⁶³ He therefore introduced a system which required project officers to motivate all expenditure in detail for his authorisation. At the same time, the three members of the Auditor-General's staff permanently allocated to Military Intelligence were given free access to all secret defence account expenditure. Full audits were to be conducted on all classified projects run by Military Intelligence.⁶⁶⁴

However, because Project Coast was a SAMS (South African Medical Services) project, Badenhorst was unable to enforce the same system. In 1989 he requested the Chief of the Defence Force, Jannie Geldenhuys, that control of Coast should be transferred to Chief of Staff Finance. Badenhorst said he was not prepared to accept responsibility for expenditure when he had no way of knowing what happened to the money once it was sent abroad by the Reserve Bank.⁶⁶⁵ In June 1990 Geldenhuys instructed the Chief of Staff Finance to assume control of Project Coast's budget, and Murray took over the problem when he assumed the position of Chief of Staff Finance in 1990. Interestingly, Badenhorst never attended a CMC meeting during his tenure at Military Intelligence, despite being an official

member of the committee. He explained this to the authors by saying that he had been instructed to investigate the operations of the CCB and therefore had been too busy to attend meetings.⁶⁶⁶

On the basis of evidence before the court, Badenhorst's fears about the lack of control were justified. Maj Hercules Orffer, who served in Military Intelligence from 1987 to 1990, and who made the foreign fund transfers on Basson's orders, explained to the court how funds were moved in such a way that they could not be traced back to the SADF.⁶⁶⁷ Basson would call Orffer from his car phone and tell him he was on the way to Military Intelligence headquarters. Orffer, who by the nature of his work always wore civilian clothes, would then wait for Basson outside the Military Intelligence offices in Vermeulen Street. When Basson pulled up in his car, he would hand Orffer a brown envelope, and drive away.⁶⁶⁸ Inside the envelope Orffer would find the necessary instructions and authorisations.

Basson's signature alone was sufficient to facilitate the transfer of millions—his bona fides were accepted by Military Intelligence without question, and no one, not even Gen. Knobel, was required to co-sign the request for fund transfers or confirm the usually sparse details of the purpose.⁶⁶⁹ This is in direct contradiction to Basson's testimony at the TRC hearing, quoted above. All further arrangements were made by Military Intelligence through the Reserve Bank. Various accounts were used by Military Intelligence to launder funds. Executive Services, Karko and Herpeco were the most frequently used accounts, while other accounts such as Global Capital Investments and Dynamic Services were used less frequently.⁶⁷⁰

Orffer accepted the explanations for expenditure at face value because of the need-to-know principle, which again provided ample opportunity for poor control. Brigadier Hein Pfeil of Military Intelligence was responsible for the internal audits of the project. He had served as internal auditor on secret projects with Military Intelligence from 1984 to 1988.⁶⁷¹ He told the court that he reported verbally to Gen. Knobel about once every three months on the matter of Project Coast finances. His reports were based on audits confined to the paperwork for transfer of project funds abroad. Like Orffer, Pfeil's mandate was merely to ensure that the correct signatures were on the authorisation documents. He never knew what the reason for the expenditure was, beyond the vague and fairly general descriptions given on

the fund transfer requests by the Project Officer. This methodology applied to all top-secret projects, and was not unique to Project Coast.

Pfeil never saw, nor did Military Intelligence receive, any proof of payment or invoices to show that the equipment ordered had been received. Once funds had been placed in foreign accounts, Military Intelligence had no further control over them. Since Pfeil never knew exactly what equipment was being purchased, or where it would be deployed, there was no way he could check that the SADF received what it paid for.⁶⁷²

Pfeil could not remember if he was ever asked by the SADF Inspector-General to submit a report on Project Coast finances. He was asked once by external auditor Pierre Theron to provide a reconciliation statement, but this showed only expenditure to date against annual budget. Pfeil also audited Inffadel and RRL, though not Delta G Scientific. He also audited the Civil Cooperation Bureau, at least once. In none of these audits was a physical stocktaking done. All that was checked was that the paperwork was in order, and that budgets were not exceeded. At Inffadel, RRL and the CCB, he checked the cash book entries.⁶⁷³

His reports to Gen. Knobel contained nothing more than assurances that Project Coast was operating within its budget in any given period. He did check that office equipment in the Inffadel offices tallied with the SADF records. At RRL no stocktaking of scientific equipment or CBW agents was carried out.⁶⁷⁴

Although his job was to audit the Project Coast budget, Pfeil never saw a breakdown of the funds allocated from the secret defence account. He knew only the total figure. The CMC therefore had no way of ensuring that Project Coast funds were spent as authorised, and none of them ever visited the front companies or verified that the equipment Basson bought actually existed. Knobel stated that he visited Delta G Scientific only once, on a Sunday, and he made only two after-hours visits to RRL.⁶⁷⁵ Basson was the CMC's only assurance that procurements had been made. The appointment of an internal and an external auditor made little difference. External auditor Petro Theron, appointed by the auditor-general, said he and Basson saw Knobel annually to assure him that everything regarding the project's finances was in order. Internal audits were in the hands of D. John Truter and later, at the suggestion of Chief of Staff Finance, André

Bezuidenhout.⁶⁷⁶ Theron confirmed in the Basson trial that during the course of his audits he never carried out a physical inspection of Project Coast facilities. He relied entirely on the documentation sometimes produced and kept by Basson or Military Intelligence, and on Basson's word. Since the documents Theron was shown were signed by Gen. Knobel, he had no reason to doubt their veracity. Theron relied entirely upon Basson for the justification of expenditure. He told the court that in clandestine deals, the responsible project officer must be above reproach, since his word alone is usually all an auditor has to work with.⁶⁷⁷ Gen. Knobel testified that on one occasion⁶⁷⁸ when the SADF Inspector-General requested an independent audit of the Project Coast books, Basson advised the CMC that this was not a good idea, citing the possible security problems. The need-to-know principle prevailed. According to Knobel and Theron, therefore, the financial affairs of the project were in the hands of Basson alone.

The State's interest in the official front companies was protected through the issuing of shares to directors of the companies, who were required to sign undated share transfer forms. These were kept in the safe of Pierre Theron, who could only destroy them or make them available to the shareholders on instruction of the Minister of Defence.

Basson claims he met Theron on an annual basis to clarify any matters arising from the audit of the Project's finances. In such a meeting in 1989, certain problems were mentioned. These included the discovery that incorrect amounts were transferred, and the fact that funds were transferred in a way that they were not completely traceable. Basson's complaints about Military Intelligence's inaccuracies came at the same time that Badenhorst was trying to put additional controls on of the secret projects.⁶⁷⁹

According to Basson, these problems arose because the Department of Finance of Military Intelligence had to be kept at arms length from the project. At the meeting Theron and Basson agreed that Basson would approach the Chief of Staff Intelligence to develop a system whereby he alone would handle the foreign transactions under the "supervision" of the Department of Finances in Military Intelligence. This placed even more personal responsibility for the financing in Basson's hands.⁶⁸⁰

Gen. Knobel's account of the financial responsibility was somewhat different. He explained to the Office for Serious Economic Offences that

the authority for the handling of the transfer of funds operated on three levels:

- “(a) Chief of the South African Defence Force authorizes the project management committee to carry out the actions
- (b) The Chief of Staff Military Intelligence evaluates the security implications and makes the necessary arrangements with the Reserve Bank
- (c) The Chief of Defence Staff Finances evaluates the flow of transactions and provides all state coffer orders if he is satisfied”⁶⁸¹

According to Gen. Knobel, therefore, Basson could not authorise finances. For Knobel the responsibility has to be placed at the door of the Chief of the Defence Force, the Chief of Staff Military Intelligence and the Chief of Defence Staff Finances. Gen. Knobel explained:

“Project budgets are handled on the basis of an objectives budget. The objectives are authorized annually by the Co-ordinating Management Committee and thereafter by the Chief of the South African Defence Force and the Minister of Defence. Thereafter the project officer formulated the objectives for the relevant year. These objectives are approved by the Co-ordinating Management Committee. Thereafter the Financial Committee of the CMC evaluates and approves the detailed budget of each objective. The approved budget is then handed to the financial official of the project as well as to the Chief of Defence Staff Finances. All project expenses are then monitored on the basis of this document by the project officer and [the auditor] Mr Theron. All operations and top secret expenses are again evaluated by the relevant members of the CMC before being authorised. As an excerpt of the relevant CMC meetings minutes, a self-standing authorisation was composed which was signed by the Project Leader, the Surgeon-General. The Project Officer (Brig. Basson) could at all times, if the operational circumstances required, authorise expenditure that was already approved in the budget”.⁶⁸²

Thus whilst day to day control was in the hands of Basson, the Minister of Defence had ultimate responsibility for the approval of Project funds. It is clear that tremendous trust was placed in Basson.

Project Coast constantly needed funds to be placed in overseas accounts which could not be traced back to the SADF. Knobel told the TRC that this process meant that the financial structures of the project became

so complex that he was not capable of dealing with them. Knobel did not know the answers to the questions raised about the finances by the Parliamentary Committee on Public Accounts.⁶⁸³ This shows inadequacy on Knobel's part as manager of the Project. He was responsible for ensuring that the project officer was accountable to him and that funds were responsibly spent.

Knobel testified that due to international sanctions against South Africa during the 1980s and the need for the project to procure equipment and substances, extraordinary measures had to be taken to ensure that the origins of project funds in foreign accounts were not detected, otherwise banks could have frozen or seized the funds. Military Intelligence channels had to be protected. Knobel said that the CMC did not want to know which individuals or countries Basson dealt with, or what foreign bank accounts were used. The important thing was that foreign agents and suppliers were never to know the SADF was involved.⁶⁸⁴ Foreign intelligence services would have been able to make the link between a huge outflow of money from South Africa and a specific supplier, unless the deals were well disguised. Knobel acknowledged that the SADF, like the South African Police and other State departments, routinely used bank accounts in the names of friendly foreign nationals for secret projects. He admitted that the entire procurement process, including the moving of funds, was largely left to Basson, provided he operated within the broad guidelines laid down by the CMC. In effect, Knobel admitted, Basson was told "here's the project money, get us the results we want". The end justified the means, and if this meant that Basson had to lie, steal, or bribe people, his measures were condoned by the SADF.⁶⁸⁵ The CMC appears to have laid down few guidelines. One exception was that Basson was not allowed to transport chemicals on commercial airlines because of the potential hazards.⁶⁸⁶

Transfers of money to foreign destinations "were effected on instructions of the project management and were effected by Inffadel and D. John Truter and also by the utilisation of front bank accounts of the SADF, which accounts fell under the control of the Chief of Staff Intelligence".⁶⁸⁷ Between 1990 and 1992, funds for the operation of the Project Coast front companies were channelled through D. John Truter Financial Services. Funds from state coffers were made available via state orders to D. John Truter, and from there paid to the service providers. Knobel and Basson claimed that after 1992 the Commissions of Inquiry established to investigate police and military activity, such as the Goldstone

Commission, presented a threat to the continued covert operation of Project Coast. They argued that it was unlikely that the mechanisms in place to channel funds to the companies would withstand investigation and were these to be revealed, the SADF would lose its strategic advantage with regard to the use of CR.⁶⁸⁸ The structure of financing was therefore changed again to move responsibility for the handling of funds even further from the official SADF structures. From 1992 the new plan was that D. John Truter would act as the agent for various foreign companies and would make orders on their behalf for research, development and production. D. John Truter Financial Consultants would be ready to “export” the products, although in fact the products would be delivered to the SADF.

To support this plan, project funds were shifted to a foreign account.⁶⁸⁹ According to Basson, this process took place with the authorisation of the South African Reserve Bank and through Nedbank. Basson said, and Knobel confirmed, that the funds were moved through a series of accounts in Europe to hide their origin and then placed in project accounts established for this purpose. The accounts selected would have been operational for some years beforehand. A Swiss bank, UBS of Zurich, provided guarantees and letters of credit.

As delivery took place money was sent from the foreign accounts to South Africa to D. John Truter Financial Consultants or directly to the supplier.⁶⁹⁰ According to Knobel and Basson, this system would only work if all the transactions were timely and efficient, to ensure that the banks did not become aware of anything suspicious.⁶⁹¹ The State’s fraud case against Basson rested on the belief that the funds transferred were not used to make procurements on behalf of the Project but rather to enrich Basson and some of his colleagues. Basson contested this charge and the Judge found that through the utilisation of foreign accounts to hide the origin of the SADF funds, he had acted in the interests both of the Project and of the SADF: “It was essential that the funds not be traced back to the SADF. Basson could move the funds around at will to avoid compromising security. Basson was authorized to use colleagues abroad and to pay them and the CMC didn’t want any information about them. All procurement was done at Basson’s discretion. Basson used bank accounts in the name of various people abroad to hide payments. Cover stories had to be told to colleagues to protect them from questions. False documents had to be created as a cover for inquiries. In sanctions busting there would necessarily be false documents”.⁶⁹²

Evidence emerged during the Basson trial of the accounts belonging to foreign nationals which were used to launder SADF funds sent abroad. These included accounts held by Belgian citizens Charles van Remoortere and Bernard Zimmer. According to van Remoortere, he and Zimmer were not informed by Basson of the purpose of the funds which moved through their accounts,⁶⁹³ although the Judge found that: “It is clear that Zimmer was thoroughly aware that WPW was busy with sanction busting to the advantage of the SADF”.⁶⁹⁴

It would appear that the security measures of Coast were as ineffective as the financial accounting measures. Lt.-Gen. Dirk Verbeek, SADF Chief of Staff Intelligence from October 1994 to June 1998, was the Chief Director: counter-intelligence from January 1988 to the beginning of 1993. In this capacity, he was in charge of SADF and Armscor security, both physical and personnel clearance, as well as anti-espionage measures.

Verbeek testified during the Basson trial that Project Coast first came to his attention in 1987, when he was in charge of personnel clearance. Security, he said, was of prime concern to Project Coast, due to the danger of exposure through espionage.⁶⁹⁵ Verbeek knew that Basson and Knobel were the key people in the project and knew about Roodeplaat Research Laboratories, Delta G Scientific, Medchem and Aeromed. He was uncertain about the precise relationships of some of the companies associated with the project.

Normally, clandestine SADF projects had a designated security officer or security working committee attached to them.⁶⁹⁶ If no front companies were involved, the security officer would be a serving SADF officer. When front companies were used, the security officer would assume a civilian identity. The nuclear weapon project had SADF security officers, while Verbeek said Coast was served in this capacity by Charl Jackson (specifically at RRL), Jan Marais and Johan Theron (all of whom first resigned from the SADF)—and by Carel Koen.⁶⁹⁷

A project security officer's tasks included personnel clearance, access control, physical security of equipment and materials, correct classification and handling of documents, control over unauthorized copying of documents, travel and accommodation arrangements and advice on the best channels for payments that could not be traced back to the SADF. In order to carry out his tasks, a security officer had to know who was involved

in deals and transactions conducted by the project, and would have to have access to all facets of the project. The need-to-know principle, as applied to the security officer, would demand that he needed to know everything about the project. Access to information by others would normally be determined by the project leader, the project officer and the security officer together.⁶⁹⁸ The Project Coast security officer should have known the names of all decision-makers in the project, including directors of foreign companies through which project funds were channelled, details of all foreign bank accounts used for Coast funds, the signatories to such accounts, details of safe houses used by project employees, all companies linked to the project, and contact between the project officer and anyone else.⁶⁹⁹

Johan Theron, intelligence officer for Project Coast, testified that he was denied access to any transaction conducted by Basson.⁷⁰⁰ Basson's legal team countered Verbeek's testimony saying that it appeared that there was never a need for Verbeek to know the details of any Coast transactions, since the line functions were that the security officer reported to the Project Officer, who reported to the project leader, who reported direct to the SADF Chief.⁷⁰¹ Because the security officer reported to the project officer, the usefulness of his appointment as a check on the Project Officer was negated. This apparently left the way clear for Basson to conduct business as he chose.

Project Coast thus appeared to evade both the normal financial accounting systems of the Defence Force as well as the standard security checks which secret projects should have been subjected to. It is unlikely that Basson alone would have been able to manipulate the structures in this way. It is more likely that there was agreement from his superiors, including the Minister of Defence, who was ultimately responsible for the financial accounting of the project that Coast should operate with minimum checks and balances. It is probable that the intention was to ensure plausible deniability for those in positions of authority, including the Surgeon-General, the Chief of the Defence Force, the Minister of Defence, and the State President.

**Membership of the Co-ordinating Management Committee and
the Reduced Defence Command Council⁷⁰²**

Structure	Date	Member's name	Designation
Reduced Defence Council	25 Oct. 1990	Lt.-Gen. A.J. (Kat)Liebenberg	Chief Defence Staff
		V/Adml. MA Bekker	Chief of Staff Finance
		Lt.-Gen. D.P. Knobel	Surgeon-General
		Lt.-Gen. G.L. Meiring	Chief of the Army
		Lt.-Gen. KM Pickersgill	Chief of Staff Army
		Lt.-Gen. A.J.S. van der Lith	Chief of Staff Planning
		V/Adml. P. Murray	Deputy Chief of Staff Finance
		Maj.-Gen. P.D. Steyn	Deputy Chief of Staff Operations
		Brig. W. Basson	Project Officer: Coast
		Col. D. Metaxas	Project Officer: Keyboard (the project to arm the ammunition with CR) ⁷⁰³
		Brig. W.A. Kempen (Secretary)	Department of Planning
Co-ordinating Management Committee	29 Jan. 1993	Gen. A.J. (Kat) Liebenberg	Chief of the Defence Force

		Lt.-Gen. G. Meiring	Chief of the Army
		Lt.-Gen. James Kriel	Chief of the Airforce
		Lt.-Gen. D.P. Knobel	Surgeon General
		Brig. G. Sonnekus	Personal Staff Officer to the Chief of the Defence Force
		Brig. W. Basson	Outgoing Project Officer
		Col. B.P. Steyn	Newly appointed Project Officer
Co-ordinating Management Committee	31 March 1993	Gen. A.J. (Kat) Liebenberg	Chief of the Defence Force
		Lt.-Gen. D.P. Knobel	Surgeon-General
		V/Adml. A. Malherbe	Chief of Staff of the Army
		V/Adml. P. Murray	Chief of Staff Finances
		Maj.-Gen. Hamman	Deputy Chief of the Army
		Maj.-Gen. Dirk Verbeek	Head of Department Counter Intelligence
		Brig. G. Sonnekus	Personal Staff Officer to the Chief of the Defence Force

		Brig. W. Basson	Outgoing Project Officer
		Mr W. van Heerden	Representative of the Auditor-General
		Col. B.P. Steyn (secretary)	Present project Officer
Co-ordinating Management Committee	24 Jan. 1994	Gen. G.L. Meiring	Chief of the Defence Force
		Lt.-Gen. Pretorius	Chief of the Army
		Lt.-Gen. D.P. Knobel	Surgeon-General
		V/Adml. A Malherbe	Chief of Staff Army
		Lt.-Gen. B Raubenheimer	Chief of Staff Finances
		Mr W. van Heerden	Representative of the Auditor-General
		Col. B.P. Steyn	Project Officer
Co-ordinating Management Committee	29 March 1994	Gen. G.L. Meiring	Chief of the Defence Force
		Lt.-Gen. D.P. Knobel	Surgeon-General
		V/Adml. A. Malherbe	Chief of Staff of the Army
		Lt.-Gen. B. Raubenheimer	Chief of Staff Finances
		Maj.-Gen. Verbeek	Acting Chief of Staff Intelligence

		Col. B.P. Steyn	Project Officer
Co-ordinating Management Committee	2 Dec. 1994	Gen. G.L. Meiring	Chief of the National Defence Force
		Lt.-Gen. D.P. Knobel	Surgeon-General
		Lt.-Gen. D. Verbeek	Chief of Staff Intelligence
		Maj.-Gen. C.L. Bröcker	Acting Chief of Staff Finance
		Brig. G.J. Coertzen	Department of Finances
		Brig. W. Basson	No designation
		Col. B.P. Steyn	Project Officer
Co-ordinating Management Committee	9 Jan. 1995	Gen. G.L. Meiring	Chief of the National Defence Force
		Lt.-Gen. D.P. Knobel	Surgeon-General
		V/Adml. A Malherbe	Chief of Staff Army
		Lt.-Gen. B. Raubenheimer	Chief of Staff Finances
		Maj.-Gen. Erasmus	Deputy Chief of Staff Intelligence
		Brig. W. Basson	No designation
		Col. B.P. Steyn	Project Officer, Project Jota (by this time Coast was referred to as Jota)

INTERNATIONAL LINKS

No evidence was presented during the TRC hearings or the Basson trial to suggest that there was any official foreign government support for the South African chemical and biological warfare programme. But Basson did travel extensively, as did others who were part of the Project: the individual scientists had contact with their colleagues abroad and Basson claims to have created an international network of intelligence agents.

Extensive reference to Basson's alleged contact with foreign intelligence agents was made by his legal representatives during his trial. These included reference to his close relationship with Yusuf Murgham, who the defence lawyers claimed was an important Libyan intelligence agent. This was denied by others who knew Murgham. In most instances when reference was made to Basson's contact with intelligence agents, they remained unnamed. Public access to the transcript of Basson's bail application hearing regarding the charges of fraud, in which many of Basson's international contacts were named is prohibited by the *in camera* ruling made by the Judge who presided over the hearing. The transcript of the Basson's bail application with regard to the charges relating to the possession and dealing in drugs, is a public document.

Knobel said during the TRC hearing that Basson had "penetrated" the chemical and biological weapons programmes of Russia, Iraq and elsewhere.⁷⁰⁴ Similar claims were made in South African newspapers which reported that during the Gulf War Basson entered Iraq "under deep cover" and used his contacts to gain access to secret information about Iraqi chemical and biological weapons. He was reported to have passed this information to Israel, resulting in residents in Jerusalem, Tel Aviv and Haifa being issued gas masks and special packs to counter the effects of biochemical weapons.⁷⁰⁵ These claims are difficult, if not impossible, to corroborate, as are Basson's claims about his international network.

During the TRC hearing in 1998 Knobel proudly told the commission that at the outset of the programme Basson “went on a world tour, he penetrated many different countries’ programmes and came back with that information”. Knobel claimed Basson’s findings informed the direction and focus of the programme.⁷⁰⁶ He added that when the Minister of Defence authorised initiation of the programme he gave a strict guideline that “no official co-operation was to take place with any other country or organisation”.⁷⁰⁷

For his part Basson told the Commission that he had no problem obtaining information from scientists abroad. He said that all his intelligence gathering was done openly using his own name. Basson claimed that: “the assistance I obtained was direct and indirect. Some of the scientists were really worried about what the Eastern Bloc countries were doing. Some of the scientists were more worried about what was happening in their own countries. Much of the information I gathered came from Physicians for Human Rights... they watched their governments so carefully to make sure that nothing would happen and they used the democratic systems in their own countries to obtain information and to force information from the government, and then they don't sell it, but they tell it to everybody else”.⁷⁰⁸ Basson also said that some western countries were interested in sharing the information which he came by, especially with regard to the capabilities of the Eastern bloc countries. This was the reason he gave for having “good access to senior government officials”.⁷⁰⁹

The claim that Western intelligence agencies were interested in South African intelligence was supported by the Swiss parliamentary delegation report which investigated the relationship between the Swiss Intelligence Unit and South Africa. The report states:

“With regard to the significance of contacts with South Africa, General Regli [Chief of the Swiss Intelligence Unit] pointed out... that an intelligence service needs information from different sources (including, therefore, from counterparts in other services) in order to be able to provide its own military and political authorities with reliable and corroborated analyses. During the cold war, the Soviet Union and the Warsaw Pact countries represented the main threat for Switzerland. Any information on these countries was of great importance. At this time, South Africa... was engaged in a war in Angola against communist forces equipped with Soviet *matériel*. Any information gleaned from this war was of vital importance for the Swiss intelligence service. None of

Switzerland's neighbours in Europe had a comparable experience from which it could benefit. Furthermore, the communist secret services were also very active in the African continent. For this reason too the Swiss intelligence service was very interested in maintaining contacts with the South African secret services. It should be stressed, however, that it was the Swiss intelligence service which benefited from South Africa, rather than vice versa".⁷¹⁰

Despite Basson's claims to have had contact with foreign intelligence services, this type of contact would have been the domain of Military Intelligence. Indeed, former Deputy Chief of Staff Intelligence, Gen. Chris Thirion, told the authors that he had good contacts with foreign intelligence agencies including the Central Intelligence Agency and Swiss Intelligence Services. It was of concern to him that Basson was given top security access to Military Intelligence headquarters and apparent free range to conduct intelligence-gathering operations.⁷¹¹ Basson's independent dealings with foreign intelligence agents could have put Military Intelligence sensitive contacts at risk. It is not apparent why Basson was given this level of freedom. Thirion raised questions about Basson's reporting channels saying that: "I had an uneasy feeling about Wouter Basson in that he had a serious task to perform and of course that meant good access to the top hierarchy, even to the Minister. I think that he manipulated himself into that situation and manipulated the situation once he was there. He was no longer reporting to an official chain of command and he by-passed Gen. Knobel who was in the formal chain of command. Basson would arrive at Waterkloof airbase when the Minister was there, flying somewhere, and would come to talk personally to the Minister. I didn't like it. He was no threat to me, no bad blood but, I was under the impression that he was manipulating the situation in that he was allowed the scope to talk to the Minister".⁷¹²

One of the first conferences that Basson attended during his early information-gathering phase was held at San Antonio, Texas, in 1981. His notes from this conference claim that he was well received by United States military officers who, he said, shared information with him about chemical and biological warfare. One of the people he met was Dr W.S. Augerson, who presented a paper at the conference. Basson's notes include reference to Augerson's statements indicating that the United States "does in fact do offensive research/have and offensive research capacity" and that "he [Augerson] states that any country with a chemical industry should be able

to produce offensive chemicals”. Basson also credits Augerson with the opinion that: “chemical attack is an ideal tactical weapon against terrorist organisations”.⁷¹³ He wrote that Augerson was “very concerned” about the “possibilities of biological warfare in the African theatre”.

In response to a newspaper article that appeared in the *LA Times* following the TRC hearing in 1998, Augerson disputed Basson’s claims saying that: “In 1981 at the meeting of the Aerospace Medical Association I gave an open talk on chemical protection. Some remarks attributed to me appear to be lifted from that talk... After the panel meeting a South African physician who said he worked for South African Airlines (probably Dr Basson) asked if we could talk privately, which we did. He indicated that during his reserve medical service he encountered indications of chemical and biological warfare capability in Soviet allied forces in Angola. He told me some stories, I asked questions. I gave no advice or suggestions. I did not speculate about Soviet BW activities in Viet Nam. People like me do not speculate on such matters with foreign strangers—weather, sports, music, yes, BW no. The South African indicated he would be back in the US later and that he had more information. I indicated interest but never saw or heard from him again. I reported our conversation to the appropriate organization but was never contacted about it. I, and others responsible for the defence of US forces were obligated to learn all we could about the capabilities and threats from our major adversaries of that period. None of us would however have considered ‘paying’ for such information by assisting South Africa in developing chemical or biological weapons”. Augerson went on to say: “One can only speculate on what Dr Basson was doing with his trip notes—impressing his superiors with his access to senior officials? Putting his ideas in the mouth of others to enhance his credibility? They were not in any case a fair representation of my views or our conversation”.⁷¹⁴

Augerson told the authors that he filed a report with the United States Military Medical Intelligence and Information Agency at Fort Detrick, and perhaps also the Defence Intelligence Agency. He tried contacting Basson again, indicating an interest in talking further, but never heard from him again. Augerson said it did occur to him that one reason might have been that some intelligence organisation might have established contact to manage an interesting source. Augerson also said that although United States Health Affairs had intelligence interests it was not set up to manage any complex intelligence activity. Augerson wrote, “Basson probably

looked like a messenger from South Africa who was offering information in exchange for what? You can assume that others would have been interested in information about Soviet threats, and there might even have been some willingness to assist in defensive efforts, but I can not imagine anyone at the time knowingly contributing to an offensive programme".⁷¹⁵

Aside from calling into question Basson's claims of assistance from United States military officers, Augerson's response shows that United States intelligence agencies were alerted to Basson's interest in chemical and biological warfare at the time that South Africa was initiating its programme. Thirion confirmed that the United States Intelligence services were aware of Basson's activities. He told the authors: "In about 1985/6 an man from the CIA asked me if he could ask me a question but said that I did not have to give an answer. He asked me if Wouter Basson had taken over from Lothar Neethling—is he now the main brain in CBW? I answered that Wouter Basson was involved in CBW counter measures and was therefore bound to rub shoulders with Lothar Neethling".⁷¹⁶

Willem Steenkamp told the authors that it is likely that Basson would have had information which Western intelligence agencies would have regarded as valuable.⁷¹⁷ Augerson confirmed that Basson had offered him information about Soviet biological warfare training, information Basson claimed to have obtained from Cuban soldiers in Angola. It is extremely unlikely that Cuban soldiers in Angola would have had access to sensitive information about Soviet BW capabilities, especially since they only received defensive CBW training.⁷¹⁸ Whether Basson had information of value to share or not, it is of significance that in the very early stages of Project Coast, United States intelligence was aware of South African interest in chemical and biological warfare.

Basson's relationship with Peter Regli and Swiss arms dealer Jürg Jacomet was the subject of questions to Gen. Knobel during the TRC hearing. It came under the spotlight again in early 1999 when Swiss journalist Jean-Philippe Ceppi was arrested by South African police for having in his possession a document handed to the TRC by Gen. Knobel.⁷¹⁹ The document was the minutes of a 1994 meeting of the Co-ordinating Management Committee. Ceppi was released and charges dropped when TRC investigators made it clear that Ceppi had been handed the document legally.

This incident and press reports about the nature of the relationship between Regli, Jacomet and Basson led to an investigation in 1999 by the Swiss parliamentary Federal Chambers Control Committee. The report of the committee concluded that “the accusation made by the media that the intelligence service and, in particular, its chief, General Peter Regli, took part in the development of South Africa’s secret chemical and biological weapons project is unfounded. Allegations that General Regli was an accessory to this project or, even worse, might have promoted it are utterly groundless. It is also not true that the chief of the intelligence unit ‘cultivated contacts’ with the head of the South African secret project”.⁷²⁰ The report stated that the committee was “unhappy with the fact that the intelligence service was able to operate at a time of considerable danger and in a sensitive area in intelligence terms without receiving any instructions and without being subject to any control by the politically responsible authorities”.⁷²¹ Jacomet’s role was described in the reports as having been “problematic”.⁷²² “[F]or a number of years, Jacomet was clearly able to pass unhindered as a member of the intelligence service. In this context, criticism must be levelled against the chief of the intelligence unit for having ascribed insufficient importance to the selection, instruction and supervision of an informal collaborator, for having trusted him too easily and for failing to see through his double game”.⁷²³

Jacomet is reported as having been an arms dealer whose company, Intermagnum AG, had supplied some 10,000 shotguns to South Africa. Before becoming involved in arms deals, Jacomet served as an intelligence officer in the Swiss airborne troops and air defence. After having left the Swiss military he continued to pass himself off as an agent of the Swiss intelligence service.⁷²⁴ The report shows that contradictory statements were made by Basson and Jacomet regarding their first meeting. Jacomet claimed that the two men met in 1987 in Pretoria whereafter they met again on a number of occasions. Basson said that he met Jacomet in 1982 or 1983 during a visit to Switzerland by Gen. Lothar Neethling.⁷²⁵ He said that Jacomet had introduced himself as an arms dealer who “officially-unofficially” represented the Swiss government. Basson assumed this meant he worked for the Swiss intelligence service.⁷²⁶ Jacomet is alleged to have collaborated with Basson on “transfer of technology between Switzerland and South Africa in chemical protection measures”.⁷²⁷ Jacomet died in 1998.

The relationship between Jacomet and Basson attracted most attention over the alleged deal involving the purchase of methaqualone from Croatia. Basson's defence advocate claimed that this deal was for "chemicals and technology" acquired through the offices of Gen. Peter Regli and Jacomet.⁷²⁸ According to the Swiss parliamentary delegation report two meetings apparently took place between Croatian citizens and Jacomet. The discussion was allegedly about the funding, purchasing and delivery of arms to Croatia. Wouter Basson was allegedly brought into these discussions by Jacomet because the Croats had wanted to know about arms orders from South Africa which had been refused.⁷²⁹

There are many versions of the events that followed. The prosecutors in the Basson trial disputed the version presented by Basson who claimed that the Croatian Deal, as it became known, was fabricated by Basson to hide the fraudulent use of Project Coast's funds. The forensic auditor traced the flow of funds allegedly intended for the purchase of methaqualone, to a number of companies in which Basson allegedly had an interest. Knobel and Basson claimed in September 1992 Basson held negotiations with a group of Croatians in Zagreb in order to obtain methaqualone. According to a report by Gen. Knobel, the Croatian delegation was led by the Minister of Energy Affairs, Mr M. Kajfeg, and the delegation included representatives of the Croatian Army, the Croatian border guard, the security police and the Special Forces Unit.⁷³⁰ Basson's version, upheld by the court, is that these negotiations led to a deal which was to cost the South African Defence Force US\$ 2.3 million, some of which was lost during the transaction, having been used by Jacomet.

Jacomet was reported by the Swiss parliamentary delegation to have been instructed by Basson to investigate the alleged arms deliveries from South Africa to Croatia. For this purpose he was allegedly sent the sum of US\$ 2.3 million from South Africa. Subsequently, in December 1992, Jacomet apparently made payments of approximately US\$ 800,000 to two Croatian generals and one Croatian minister, "for services rendered and as a sample". In February 1993, after several attempts at evasion, Jacomet apparently admitted having used the remainder of the money for other business.⁷³¹

Basson was instructed by the Co-ordinating Management Committee to recover the lost funds. This led to Basson and Jacomet submitting forged Vatican bearer bonds to a Swiss bank. Both men were arrested by the Swiss

authorities. The investigations conducted by the Zurich district prosecutor's office were inconclusive. In December 1993, Basson was released on bail from custody and Jacomet went into hiding from the criminal prosecution authorities. Since it was not possible to prove that Jacomet or Basson had themselves forged the securities, or that they had at least known that these securities were forged, the criminal inquiry was formally closed on 21 September 1994, with costs awarded against the two defendants.

A document explaining the process of the alleged purchase of methaqualone from Croatia claims that "after a visit by the Project Officer to Moscow in February 1991, the Project Officer was introduced to a number of people who work or worked in the field of chemical warfare, amongst these was a group in Croatia".⁷³² A document authored by Lt.-Gen. C.P. van der Westhuizen, Chief of Staff Intelligence, in 1992 states: "Dr Basson... explained the involvement of the young Russian Sergey V. Evstigneev in Basson's last visit to Moscow. According to Dr Basson, Evstigneev had fled Russia and had gone Britain before he obtained a temporary working permit in South Africa. Mr Kowalski of Kowalski International employed the young Russian, who had an excellent flair for languages. Dr Basson had (presumably) heard from Dr Mijburgh about the Russian who was able to speak some Afrikaans after only six months in South Africa and he decided to take him with to Russia to act as a translator. Dr Mijburgh, who accompanied Basson on this trip to establish trade relations with Russia also made use of the translation skills of Evstigneev. Dr Basson used the bona fide visit of Dr Mijburgh as a cover for his activities. They used the Jetstar of WPW through Aeromed Services".⁷³³ No further details about these trips are made available in the documents nor was testimony about them given during the TRC hearing and the trial of Basson.

Basson testified in court that negotiations for the Croatian deal began at the end of 1991, when he began discussions with his "contacts" at the Academy of Sciences in Moscow, as well as with Jacomet and Swiss intelligence.⁷³⁴ Basson alleged that from the start that it was the Swiss who took care of the planning and devised the mechanism for payment. Basson said the substances he was buying were only a tiny component of a "much bigger" deal, of which he had no details, but he believed the Swiss were involved in buying nuclear material⁷³⁵ from Croatia.

Basson believed the methaqualone would be sourced from Russia, but during 1992, became aware that it would come from Croatia. According to

Basson, negotiations then took place between himself, the Croats, Jacomet and a Swiss intelligence agent who could speak Croatian. He claimed that late in 1992, for the first time as Project Officer of Project Coast, he was given a deadline by the Co-ordinating Management Committee: He had to acquire the methaqualone as a matter of urgency. Basson alleged that Jacomet and his colleagues in Swiss intelligence confirmed that the Croats would supply the 500 kilograms of methaqualone, and that Basson would be allowed to take samples from the consignment to have them tested in a laboratory before payment was made. A letter from Jacomet to Basson was shown to Gen. Knobel.⁷³⁶ The letter states that “We have available for immediate delivery for you 600kg of Quinezoolione⁷³⁷ \$5,000 US per kilo. If you want us to buy this material please transfer the total amount in \$2.5 million US immediately as follows: Account Jürg Jacomet Zagreb Zagrebaka Zagreb”. The letter is signed by Jacomet as Managing Director of the company Hierholzer and Partners.⁷³⁸ The CMC understood that the “Quinezoolione” was methaqualone.

Basson said that the chemicals would be transferred to Graz where he would take delivery of them.⁷³⁹ Graz, he said, had been designated by the Austrian authorities as a “free port” through which the Croats could import arms and other goods. Basson said he took samples of the methaqualone at a military base outside Zagreb, then sealed the containers. He then travelled to Basel, where a friend of Swiss pharmacist David Chu analysed the samples. Allegedly satisfied with the purity of the substance, Basson returned to Croatia and drove with the consignment to Graz. Basson said that on the trip from Zagreb, through Slovenia, the convoy came under fire several times. On reaching Graz, Basson instructed Jacomet to make the payment to the suppliers. He said that road transport from Graz to Basel was arranged and the chemicals were kept in transit at Basel before being flown to Pretoria in the Jetstar, which touched arriving on December 23, 1992. In his testimony Basson said he had arranged in advance that Maj.-Gen. Dirk Verbeek, Chief Director Counter-intelligence at Military Intelligence, would offer assistance in the event of any problems clearing customs, and that Gen. Knobel was aware of the arrangement. The chemicals were taken to the Defence Supply Depot. The following morning Basson said he was phoned by Gen. Knobel and told that the President, F.W. De Klerk, had dismissed him from the SADF.⁷⁴⁰

The story of the Croatian Deal is not over. Basson’s testimony in the trial resulted in the Swiss Ministry of Military Affairs ordering a second, more

thorough investigation into the matter. Notice of the re-opening of the investigation was given on 17 August 2001 and General-Secretary, Juan Gut, was appointed to lead the investigation. The investigation was in progress at the time of printing this report.

Basson's international contacts included the Belgians Zimmer and van Remoortere, the United States lawyer David Webster and Swiss pharmacologist David Chu.⁷⁴¹ All of these people visited the chemical and biological warfare facilities, yet, except for van Remoortere, all claim to have believed that Basson was merely a businessman who may have had contacts with the military. All say they never provided Basson with assistance in procuring any equipment or substances for the programme, claims the judge found to be unbelievable, saying in judgement that they were aware of the fact that they had assisted Basson in sanctions busting to the benefit of Project Coast.

Many of charges of fraud against Basson rested on the court accepting that the funds spent in the name of Project Coast by Basson, were not used to purchase the substances and equipment which Basson said they were. These included the alleged purchase of a sophisticated peptide synthesizer, which was then later exchanged for methaqualone; large quantities of the growth hormone thymus, a computer system for predicting the spread of chemical agents, as well as cocaine and BZ. The court found that Basson had purchased all these items, yet scientists at RRL told the authors that Basson did not bring them a single culture⁷⁴² and the Delta G procurement officer said the company never had any problems procuring their substances or equipment through the normal commercial channels. It appears unlikely that sensitive procurement was necessary for the two official front companies.

The relationship between Project Coast and rightwing American gynaecologist, Dr Larry Ford was complex and has raised more questions than it has answered. On 2 March 2000 Ford shot himself at his home in Irvine, California.⁷⁴³ In the months that followed the suicide and the subsequent investigation led to Ford being linked with Project Coast. The connection was confirmed by Gen. Knobel, who told American journalists that he had introduced Ford to Basson during the mid-1980s. Knobel said that Ford had been a consultant to Project Coast.⁷⁴⁴ He considered Ford a friend, and said they had a mutual interest in Africa's AIDS pandemic.⁷⁴⁵

Allegations that Ford was linked to the CIA were made after his death when his wife claimed he had connections with the Agency while he was a student.⁷⁴⁶ The CIA denied that he was employed by them. Between 1987 and his death in 2000, Ford made at least three trips to South Africa.⁷⁴⁷ Scientists testifying at the Basson trial said that they attended a day-long seminar by Ford near Pretoria when he showed them how to isolate and identify various toxic substances applied to everyday items such as the pages of magazines. He left various toxin-impregnated articles behind for research purposes.⁷⁴⁸ The South African scientists became sceptical of Ford after tests showed that his samples contained no lethal toxins. Delta G staff were also aware of the “Ford Hair” project—a search for a product that could cure male baldness, launched at Ford’s initiative.⁷⁴⁹ It was established during the Basson trial that the hair restorer formula was closely related to a lethal toxin, phenylsilitrane, produced by Delta G.

Gen. Knobel said he met Ford in the late 1980s at the Los Angeles home of former South African trade attaché, Gideon Bouwer. Bouwer, who died in 1990, is known to have been a friend of businessman Dino D’Saachs, charged with conspiracy to murder and who was serving a sentence of 26 years to life, at the time of writing. Ford’s business partner, Patrick Riley, two other regular guests at Bouwer’s home, Peter Fitzpatrick and Tom Byron, told FBI investigators that Bouwer often boasted of being involved in the acquisition of biological weapons for South Africa with the help of Ford and others.⁷⁵⁰ Fitzpatrick and Byron claim they acted as FBI informers from 1985 and regularly reported on the activities of Bouwer and Ford during the United Nations arms embargo against South Africa. There is no evidence that Ford supplied biological warfare cultures to Project Coast.⁷⁵¹ It is unclear why Gen. Knobel would have made use of Ford, who despite his alleged links to the CIA, was not a recognised expert on biological weapons and would not have had access to such weapons.

Ford joined with Riley to found a bio-technical research company, Biofem Inc. This company was working on a female microcide known as Inner Confidence from which Biofem hoped to make millions. Ford claimed it would revolutionise the fight against AIDS. Riley maintains that he was never aware of Ford’s links with Project Coast, but he is known to have visited South Africa himself more than once. He was also known to Knobel.⁷⁵² In February 2000, three days before Ford committed suicide, an attempt was made on Riley’s life in which Ford is believed to have played a role.

Detectives investigating this failed attempt on Riley's life believe that early testing on the female suppository took place on prostitutes in South Africa, and possibly also on American prostitutes.⁷⁵³ Knobel acknowledges helping Ford set up clinical trials in for Biofem in South Africa, but claims he has no further knowledge of the matter.⁷⁵⁴

Six sealed canisters buried in Ford's backyard and dozens of bottles of unidentified liquid recovered from storage facilities suggest other motives for both the attempted murder of Riley, and Ford's suicide. After being tipped off by a family member, authorities evacuated more than 200 people living in Ford's neighbourhood, moving them out of their homes for three days as they searched for hazardous substances, arms, and ammunition. Investigators found 17 illegal weapons, including machine-guns, thousands of rounds of ammunition, explosives which investigators said could only have come from a military facility, a large quantity of potassium cyanide in a sealed container, jars of suspected toxins in a refrigerator in Ford's garage, and over 40 hunting rifles and shotguns concealed in secret compartments and under floorboards in his home. They also found biological agents—*Vibrio cholera*, a clostridium, and *Salmonella typhi*, all apparently still viable.⁷⁵⁵

A search of the home of Dino D'Saachs, charged with driving the getaway vehicle in which Riley's unidentified assailant escaped, turned up more guns and ammunition. A handbook titled "How to be a hit man" and a map of the Biofem parking lot, with Riley's parking space marked with an X.

D'Saachs, a tax consultant and auto shop owner, had been a friend of Ford's for more than 15 years.⁷⁵⁶

The local police investigation into Ford expanded, to include the CIA, Federal Bureau of Investigations and the Alcohol, Tobacco and Firearms unit. Details emerged showing Ford to have conducted unauthorised medical experiments on patients, espousing extreme right-wing beliefs, and fraudulently-claimed scientific achievements. Ford had told neighbours that he once parachuted into Southern Africa to take blood samples from dead guerrillas so that American authorities could identify the biological agents they were being vaccinated against.⁷⁵⁷

According to Gen. Knobel, Ford was instrumental in formulating the SADF's AIDS policy, and served as an adviser to the South African military during the 1991 Gulf War. Knobel said that Ford supplied South African military personnel stationed in Israel during the Gulf War with various anti-toxins. It is not known how Ford came by such substances, or in what capacity he supplied them to South African authorities.⁷⁵⁸

Further information on Ford's links to Project Coast was provided during the Basson trial. Dr Graeme Gibson, a medical doctor who had done AIDS research while serving in the military in the late 1980s, was instructed by Basson to launch a six-month project funded by the SADF. Gibson's research aimed to establish the effect of a peptide, Thym-uvocal, in the treatment of HIV-positive patients. The research proposal was drawn up by Basson. It specified that South African doctors involved in the project were to liaise with Ford on their findings. They were also to acquire "any relevant CBW literature" from Ford.⁷⁵⁹ Gibson testified that in his opinion the proposal was scientifically deficient. He had submitted a revised test protocol which he believed was more acceptable. He never heard further from Basson about the research and as far as he knew, it was never launched.⁷⁶⁰

Much still remains unknown about the relationship between Ford and Project Coast. It is still not known whether there was an exchange of biological agents between the programme and Ford.

Wouter Basson travelled frequently, sometimes several times in the course of one month. What follows is a list of his known overseas trips:

Date	Place	Purpose
May 1981	San Antonio, USA	Attendance of a professional congress. ⁷⁶¹
May 1981	Taiwan	Visit to the Taiwanese Army Chemical School. ⁷⁶²
May 1982	Windhoek	Unknown. ⁷⁶³
August 1986	Ghent, Belgium	To attend the Second World Congress on Chemical and Biological Warfare. ⁷⁶⁴

May-June 1989	USA	Basson told Webster that “my intention regarding the flying session, French lessons, fitness programme and R & R remains the same”, implying that the intention of the trip was recreational. ⁷⁶⁵
13 June 1989	London	Accompanied by Webster. Met with Buffham. ⁷⁶⁶
14 June 1989	Luxembourg	To meet with David Chu. ⁷⁶⁷
16 June 1989	Switzerland	Meeting with Jürg Jacomet at Haber & Sohn with regard to CBW protective clothing. ⁷⁶⁸
August 1989	London, Miami, Orlando	Month long vacation at Jane Webster’s house. ⁷⁶⁹
24 June 1990	London- Washington- Orlando-New York	Visit to David and Jane Webster ⁷⁷⁰
30 June 1990	New York- Luxembourg- Basel- Farnborough- Malaga (Spain)- Abijan- Johannesburg	Meetings with Zimmer in Luxembourg, meeting with Chu in Basel; Basson’s birthday in Malaga (6 July). ⁷⁷¹
August 1990	England- Switzerland	Unknown. ⁷⁷²
November 1990	England	To attend a rugby test match. ⁷⁷³
November 1990	England	To meet Jane Webster to resolve a dispute. ⁷⁷⁴
February 1991	Moscow	Met with people who were knowledgeable about CBW issues, including a group from Croatia. ⁷⁷⁵

April 1991	Switzerland	To meet Tjaard Viljoen. Basson was accompanied by his wife and children. ⁷⁷⁶
October 1991	British Columbia, Canada	Hunting trip with Webster and Mijburgh. ⁷⁷⁷
24 October 1991	Zurich-Basel-Spain-SA	Unknown. ⁷⁷⁸
29 Nov.-Dec. 1991	Basel, Luxembourg, Switzerland, England, Germany, Belgium, Spain, Morocco, Tangiers	Meeting with Medchem Forschungs in Basel; meeting with Zimmer in Luxembourg, collection of documents in Tangiers. ⁷⁷⁹
December 1991	Chad	Transport of "samples and material". ⁷⁸⁰
September 1992	Croatia	Meeting with government officials. ⁷⁸¹
6 December 1992	London-Luxembourg	Travelled with his wife—purpose unknown. ⁷⁸²
28 June 1993	Switzerland	Basson arrested in Switzerland. ⁷⁸³
1993-1996	Libya (several visits)	Consultation about the building of a railway. ⁷⁸⁴
May-June 1995	Tripoli, Libya	Unknown. ⁷⁸⁵
27 January 1997	Namibia	To meet with Libyan and former East German agents. ⁷⁸⁶
Unknown	Two trips to Seychelles	Accompanied by family members. ⁷⁸⁷
Between 1993 and 1997	Libya	

The only record of an official foreign trip by an SADF officer with regard to chemical and biological warfare, apart from those conducted by Basson, is a document which the TRC made available to the public during its 1998 hearing. The document's author, Commandant Rudolf Louw, was appointed to the Army's Directorate Projects, where his task was to provide vehicle-engineering support to various project officers. In 1986, Louw was instructed to carry out a project study on nuclear, chemical and biological warfare for the Army. Based on his findings, the SADF decided he should not pursue the nuclear component, that the biological component would be the responsibility of SAMS and that the Army would assume responsibility for the chemical component.⁷⁸⁸

Louw was then appointed project officer for Academic, the Army's defensive chemical warfare programme. Louw reports on a trip undertaken to Israel and West Germany in 1986 by SADF and Armscor personnel, accompanied by Uwe Paschke, son-in-law of PW Botha, and representative of the company Patech. It can be assumed that this trip was undertaken within Louw's brief to procure defensive CBW equipment for the various branches of the military.

The report states that Louw was sent to visit West Germany and Israel by Basson. The purpose of the visit to Germany was to have exposure to selected industries related to CBW, and to visit the German military chemical and biological school. One of the places visited was the company Odenwald-Werke Rittersbach. Louw went alone and remarked that he was received unusually warmly, with the company showing an excellent understanding of South Africa and specifically the SADF. He also noted that this company did not want to do any business with Israel. In contrast the report notes that the visit to the CBW school was unsatisfactory and no information could be gathered. Louw reported that the trip to Israel was successful and proposed that the SADF consider a CBW training package that Israel could offer.

In a summary of the visit the report states:

- “1. It provided for personal contact with experts in the field of CBW and the establishment of relationships which can be followed up.
2. Access was gained to industries which were formerly inaccessible.
3. A basis was laid for possible co-operation with Israel's Ministry of Defence in the field of CBW.

4. A wider insight with regard to philosophy and key problem areas.
5. Confirmed that although SA is still in the early stages, the programme is fundamentally sound and up to date with the latest developments.
6. Confidence was built and the SADF was acknowledged as a partner in the field of defensive CBW, although this will not be announced, especially in Germany”.⁷⁸⁹

At the time of the Truth Commission hearings the National Intelligence Agency expressed the concern that the names of scientists involved in the programme should not be made known, in case they may become vulnerable to recruitment attempts by governments interested in acquiring a CBW capacity. This concern may have come too late. Sometime after 1993 Jan Lourens was approached by Ters Ehlers, P.W. Botha’s last private secretary, who has since been linked to the supply of arms to Rwanda during the 1994 genocide.⁷⁹⁰ Ehlers introduced Lourens to a friend of his from Syria who Lourens remembers as Mr Saroojee.⁷⁹¹

Lourens recalls that Saroojee was “quite open in his request for technology in the form of documentation or skills”.⁷⁹² Lourens had left Protechnik already and told the authors “there was no way I was going to address the matter with Charles [Van Remoortere] and company”. He told Mr Saroojee that he could not purchase documents, but after some discussion which Lourens cannot recall, he asked about purchasing skills: “I cannot recall exactly how we arrived at André Immelman. I do recall however that we did not approach any other scientist, André may have had a specific skill required”. Lourens introduced Immelman to a small group of Syrians.⁷⁹³ Immelman told the authors that he attended a meeting which took place at a house in Johannesburg. Two of the men introduced themselves as a General and a retired General from the Syrian Army.⁷⁹⁴

There was a discussion about chemical and biological warfare. Immelman and Lourens asked the men whether they had laboratories for the analysis of chemical agents and for the culturing of bacteria. It was suggested by the South Africans that Lourens and Immelman could go to Syria to evaluate their facilities if necessary. During the discussions the Syrians showed a broad interest in chemical and biological warfare, which Immelman did not find surprising in the light of “the knowledge that Israel has a chemical and biological warfare capability”. Immelman asked what the source of the political tensions between Israel and Syria were. These were explained. The Syrians then said they had an important meeting to

attend and left. No further contact was made with Immelman and he did not travel to Syria. He cannot recall the names of the people who attended the meeting.⁷⁹⁵ A senior official formerly of the National Intelligence Agency's Non-proliferation Unit told the authors that the NIA had not been aware of the Syrian contact.

The examples of contact between Project Coast officials and the outside world, reflected in this chapter, do not provide conclusive evidence of support for Project Coast by foreign governments. Neither at the TRC, nor during the trial of Basson, did evidence emerge which indicated official support for Project Coast by foreign governments. The details which have emerged regarding Larry Ford's relationship with Project Coast, his knowledge of the scientists and familiarity with the facilities, as well as the claims by Augerson and Thirion indicate that the US intelligence agencies had access to knowledge of Project Coast. This knowledge did not result in any action by the United States government to question the South Africa's of chemical and biological warfare. Whether this indicates tacit support for the programme or simply a failure of communication between intelligence services and decision-makers has not been determined by this study. The nature of the relationship between Regli and Basson, still under investigation by Swiss authorities, raises the same question in relation to Switzerland's failure to question the South African government's establishment of a CBW programme.

Contact between the scientists of Project Coast and their colleagues abroad have not been dwelt on in this chapter. The South African scientists were not isolated, did have exchanges with colleagues abroad and it is likely that their interest in chemical and biological warfare did not escape the attention of these associates.

CLOSING DOWN

Basson was dismissed from the Defence Force on 31 March 1993, in the wake of Gen. Pierre Steyn's report to F.W. De Klerk. He was immediately re-employed for 12 months to tie up the loose ends of Project Coast. His senior officers instructed Basson to retrieve the money that was lost during the alleged deal to purchase methaqualone from Croatia. From March 1994-October 1995 Basson was not employed by the military, but he was reinstated by a cabinet decision in 1995.

During the period 1993-1995 Basson appears to have had strong links with Libya. These included consulting on the management of a planned railway line in Tripoli for three years from March 1993. He was also employed as a consultant on the construction of hospitals in Libya.⁷⁹⁶

Christopher Marlow spent 18 months in Libya between 1994 and 1995 in connection with the business of a company, Libgro, set up by himself, Basson and Mijburgh. According to Marlow, Libgro was set up in 1993/94 specifically to handle "the Libyan arm of business". Testifying in court Marlow was adamant that in all his dealings with Libya he had absolutely nothing to do with intelligence matters, and that his involvement at all times was "purely business".⁷⁹⁷ Basson's interests in Libya were not military related according to businessman and ANC supporter, Sol Pienaar, who told the court that he accompanied Basson on his first trip to Libya in 1993. He said that he had not known that Basson was linked to the military until it was revealed by media in the mid-1990s.⁷⁹⁸

Basson made more than one trip to Libya with Pienaar who introduced him to his contacts in Libya, including Yusuf Murgham. These trips did not go unnoticed by the South African intelligence service who were keeping watch of Pienaar because of his relationship with Murgham.⁷⁹⁹ Nor did they go unnoticed by the United States and the United Kingdom intelligence services. In fact it was concern about these trips that led the United States and the United Kingdom to urge the South African government to re-employ Basson in 1995 so that he could be brought

under military control.⁸⁰⁰ There were fears that Basson had been transferring CBW knowledge to Libya.⁸⁰¹

On 11 April 1994 the Ambassadors of the United States and the United Kingdom met with President De Klerk. According to Ambassador Princeton Lyman of the United States, who was present during these meetings, the United States and the United Kingdom were concerned that the South African CBW information was “in danger of being acquired by other states, in particular Libya”⁸⁰² and that South African scientists could be recruited by these States. The other reason for the meeting was to inform the South African government that its Confidence Building Measure to the Biological and Toxins Weapons Convention should not underplay the nature and extent of the offensive aspects of Project Coast, otherwise this would jeopardise the integrity of the Convention. According to Lyman “South African officials were adamantly opposed to making such an admission, arguing that any such offensive uses were done without proper authorisation and against official policy”.⁸⁰³

Reference to this meeting is made by Knobel in the document which formed the basis for his briefing of the newly elected President, Nelson Mandela in August 1994. Under the heading “Enquiry by Ambassadors of The USA and UK”⁸⁰⁴ Knobel states:

“On 11 April 94 the SP [State President] and the Minister of Defence were advised by the Ambassadors of the USA and the UK of their governments’ position with regard to the above programme [chemical and biological warfare programme] as well as the Confidence Building Measure declaration submitted by the RSA in 1993. They stated that they were fully aware of the contents and extent of the SADF CBW programme and that they had certain reservations about the RSA’s CBM declaration as well as the implications for non-proliferation. They requested further that:

- Their experts be fully briefed on the details of the SADF programme.
- Confirmation be given that the programme has been terminated and that no biological weapon systems are in existence.
- A public declaration to this effect be made.
- All cases of alleged abuse of the programme and its products be fully investigated and the results of this investigation be made available to them.
- That Mr Mandela should be fully informed about the programme.

They further indicated that their respective governments would wish to enter into discussions with a future South African Government of National Unity (GNU) with respect to the issue of non-proliferation of data and materials or weapons of mass destruction.

After discussion between the Surgeon-General and National Intelligence with members of their delegation a further meeting with the SP, Mr De Klerk himself, was held. He indicated that:

It was the intention to fully inform Mr Mandela about the extent of the SADF Defensive CBW programme as well as other priority issues during the period immediately after the election.

The 1994 CBM declaration by the RSA government would not be submitted before the GNU [Government of National Unity] was in place.

The records of all scientific research pertaining to the SADF defensive CBW programme, which is at present under strict centralised control and which was indeed a national asset, would not be destroyed without discussions in this regard with the GNU.

No public announcement in this regard would be considered before the above had taken place.

With regard to the reference of the above mentioned ambassadors to their knowledge of the content of the programme, the following must be noted:

- Their respective scientists and intelligence community did not have any real information on the content of the programme.
- An overview of the programme was given to them over a period of 3 days by the project officer.
- During this period they were allowed to visit the biological facility, which company was now in voluntary liquidation due to the lack of commercial research and development opportunities in this field.
- Certain information regarding the Russian and Iraqi programme was passed on to them (including the identity of the newly prevalent "flesh eating bacteria" which originated from the Russian programme.)
- They could not give details of any incidents of cases of alleged abuse of the programme or its products, except for alleged cases already referred to in the lay press.⁸⁰⁵

A document used by the TRC in its 1998 hearing may have been the document on which Basson briefed the United States and the United Kingdom experts. The document is not dated and is merely headed "The South African CBW programme". The document states that South Africa had to develop a self-sufficient, defensive capability through the production of defensive equipment and through the establishment of defensive equipment research and development laboratories. At the same time it states that "the SADF would have to develop a plausible retaliatory ability in the case of chemical attack on its forces. This ability would not necessarily have to be lethal, but would, against the backdrop of the possibility of highly lethal agents being deployed, have to be realistic enough to force an opposing force to deploy defensive measures to protect their own forces".⁸⁰⁶ It goes on to say that "no biological weapons or delivery systems would be developed". This last claim is misleading since biological weapons and delivery systems were developed at RRL, but not those standard to biological warfare programmes elsewhere. The emphasis on the defensive nature of the programme was even more misleading, since attention to the defensive aspects of the programme began only in 1988, seven years after the initiation of the programme.

The document states that, for lethal agents, binary systems were considered "too inefficient" to develop, whereas for agent CR, a binary system was developed. This too is a misleading statement, because what would make a binary nerve gas inefficient would also make a CR binary inefficient, probably a great deal more so. The United States Congressional opposition to large-scale procurement of binary chemical weapons by United States armed forces laid particular emphasis on the greater efficiency of the non-binary nerve gases that were already massively stockpiled.⁸⁰⁷

On 22 April 1994, a week before South Africa's first democratic elections, a second meeting took place between the United States and United Kingdom Ambassadors and President De Klerk. In this meeting De Klerk reaffirmed his commitment to briefing Mandela about the programme and agreed that the meetings between the technical experts from the three countries should continue. Contrary to the statement De Klerk made in his earlier meeting, however, he argued that a defensive programme had been justified and that the data resulting from the programme was a national asset which would not be destroyed.⁸⁰⁸

Ambassador Lyman recalls that after the 1994 election the United States and the United Kingdom waited for De Klerk to brief President Mandela. They believed that this briefing had to take place before Mandela's inauguration. Five days before the inauguration, when the briefing had not taken place, the United States "alerted Thabo Mbeki that there was a proliferation matter of great concern that we [the US and UK] would need to address with Mandela very soon in the new government".⁸⁰⁹ Mandela was urged to seek a briefing from De Klerk as soon as possible. A short briefing was given to Mandela a few days later and he received a fuller briefing some months later.

The continued trips undertaken by Basson to Libya were still a matter of concern to the United States and the United Kingdom.⁸¹⁰ In January 1995 a third *démarche* was brought by the governments of the United States and the United Kingdom. Dr Graham Pearson, former Director-General of the United Kingdom Defence Ministry's Chemical and Biological Defence Establishment at Porton Down,⁸¹¹ who was present during the meetings that followed, told the authors that the intention of the *démarche* was to request the South African government to provide a credible Confidence Building Measures statement to the Biological and Toxins Weapons Convention.⁸¹² He said that no comment was made about the nature of the programme and no questions were asked about it. Lyman records that the most difficult issue of the meeting was Basson's travels to Libya and elsewhere. This discussion took place after Mandela had left the meeting with Minister of Foreign Affairs, Alfred Nzo and Deputy Defence Minister, Ronnie Kasrils. It was agreed that the best way, at that stage, to deal with this matter was for Basson to be re-hired by the Defence Force in his capacity as a cardiologist. It was clear that this would lead to questions being raised but it "was the only recourse that appeared practical at the time".⁸¹³

The annual submission to the BTWC has many parts, one of which is Form F, a Declaration of Past Activities in Offensive and/or Defensive Research and Development Programmes. The South African Confidence Building Measure Form F declaration to the Biological and Toxins Weapons Convention which followed the *démarche* was incomplete, and misleading in so far as it deliberately concealed relevant information about the programme.⁸¹⁴ The declaration states that the past "defensive biological research and development programme" began in 1987 and ended in 1992, rather than the 1983-1994 period that its own documents revealed. It also

states that a “specific biological warfare threat against South African forces in operations in Angola was perceived”. There are no evidence, documents or information that such a threat existed. No mention is made in the annual CBM F Form of the work done at RRL (established in 1983), or of any component of the programme designed to research, prepare and use biological agents to kill people. In its official CBM F statements of 1996, 1997, 1998, 1999 and 2000 South Africa has continued to maintain the same position, notwithstanding the revelations of the TRC and the convincing evidence to the contrary.

The privatisation of Roodeplaat Research Laboratories and Delta G Scientific took place in 1990 and 1991. By the end of 1993 all South African chemical warfare agents had allegedly⁸¹⁵ been destroyed and SADF contracts with the two companies cancelled. No records are available to confirm that the biological agents were destroyed. As far as the authors are aware, no such documentation exists.

There is uncertainty about what happened to RRL’s culture collection.⁸¹⁶ Microbiologist Mike Odendaal said he gave it to André Immelman when he left the organisation,⁸¹⁷ and he believed that Immelman was going to destroy it. Some of the scientists believe that the cultures could have been taken by their colleagues for their own research purposes. There is no evidence to confirm that the culture collection was destroyed at the official closure of the programme.

The fate of the chemical agents is as much of a mystery. In January 1993, when Defence Minister Eugene Louw was briefed by Gen. Knobel about the chemical and biological warfare programme,⁸¹⁸ he ordered that, in the light of the imminent signing of the new Chemical Weapons Convention, all work on incapacitants should cease and the stocks be destroyed. It was decided at the same meeting that South Africa would not reveal the work done on CR in its declarations.⁸¹⁹ A week later, South Africa signed the Chemical Weapons Convention which clearly states that “Each State Party shall determine how it shall destroy chemical weapons, except that the following processes may not be used: dumping in any body of water... It shall destroy chemical weapons only at specifically designated and appropriately designed and equipped facilities”.⁸²⁰ Although the convention only entered into force in 1997, (following ratification in 1995), it would have been prudent for the South African Defence Force to have

destroyed the chemicals in a way which was in keeping with the Convention. The chemicals were allegedly dumped into the sea.

On 29 January 1993, Basson reported to a meeting of the CMC⁸²¹ that the chemicals had been destroyed, though not quite as ordered. The Commissioner of Police was meant to assign a police officer to supervise the destruction. According to Basson, the police did not want to be involved, so an officer from Military Intelligence's counter-intelligence division, Commandant De Bruyn, was assigned to fulfill that function. The Minister of Defence had ordered that samples of the substances be taken and preserved by the Chief of the Defence Force until verification tests had been conducted by the SAP Forensics Laboratory, after which the samples were to have been destroyed.⁸²²

Three months passed after the alleged destruction, before a document certifying the destruction of the chemical agents was drawn up.⁸²³ Only in May, five months after the alleged destruction, did the police forensic laboratories receive for analysis samples, claimed to have been taken from the drums. Basson told the CMC that the chemicals had been packed in drums on a pallet, loaded into a South African Air Force aircraft and dumped in the sea off Cape Agulhas. American satellites had confirmed that the flight was made, he said. Basson would not have known if American satellites had spotted the drop, as this information is highly classified in the United States.⁸²⁴ Even if there was satellite confirmation of the flight, and confirmation that something had been dropped in the sea, the satellite would clearly not have been able to confirm the contents of the items dropped. While Basson reported to the CMC that samples had been taken at random from the drums by De Bruyn,⁸²⁵ the certificate states that Military Intelligence felt it was better not to take samples, as this might draw attention to the operation.⁸²⁶

On March 30 1993, De Bruyn was given another three samples of BX (Ecstasy) and "C" (cocaine) by Basson, and told they had also been taken on dumping day. De Bruyn said there were 18 blue plastic drums in all, which Basson said contained Product M. On June 9, 1993, all De Bruyn's samples were tested by Brig. Hein Strauss at the South African Police laboratory.⁸²⁷ It is not known whether the dumping of agents was reported to the Organisation for the Prevention of Chemical Weapons in accordance with required procedure of the Chemical Weapons Convention. The court

found that there was no reason not to accept the fact that the substances had been destroyed, as stated by Basson.⁸²⁸

The amounts of substances destroyed represented in the various documents are not consistent. The failure to destroy the MDMA is implicit when one considers that there is no explanation for how MDMA could have been found in capsule form in Basson's possession at the time of his arrest in 1997. More than three months after the alleged destruction, pharmacist Steven Beukes was requested to manufacture 1 million capsules of what was found to be MDMA.⁸²⁹ Two batches of MDMA were manufactured at Delta G Scientific. The first batch was made using Sassafras oil.⁸³⁰ The production of this first batch resulted in MDMA with 99.5 per cent purity, production was completed by January and February 1992, and the result was between 50 kilograms and 70 kilograms of MDMA. Later in 1992 Koekemoer manufactured 912 kilograms of MDMA by the glycidic ester route.⁸³¹

When Basson was arrested, he was charged with the possession of a total of 3,158 capsules of MDMA in addition to 38.6 grams in powder form. He was also charged with dealing in 96.9 grams of methaqualone and the possession of 14 grams of cocaine. He was acquitted on the latter three charges in a ruling by Judge Willie Hartzenberg on 18 June 2001. The State had alleged that the drugs had been found in the trunks found at the time of Basson's arrest. Basson's defence lawyers argued that there was no evidence that Basson was aware of the contents of the trunks, nor that he had packed the trunks himself, and their defence was accepted by the court.

If the substances were not destroyed as reported, the question of the whereabouts of the BZ which Knobel reported the SADF had in stock, remains unanswered. The table below shows the chronology of events relating to the destruction of the chemical warfare agents and drugs.

Chronological account of the alleged destruction of substances

30 July 1992	Letter from Philip Mijburgh of Medchem Technologies to Basson with a quote for the production of 1000kg of MDMA. Total cost of production quoted R840,000. States time of delivery to be 6-10 weeks after payment. ⁸³²
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- 7 Aug. 1992 Gen. Knobel confirms the order for 1,000kg of MDMA. Provides assurance of provisional immunity from prosecution.⁸³³
- Sept. 1992 Basson allegedly deals with Croatian suppliers for the acquisition of 500kg of methaqualone.⁸³⁴
- 6 Nov. 1992 Payment of US\$ 2,300,000 into Jacomet's account in Switzerland to pay Croatian suppliers for 500kg of product M (date is given for its delivery in South Africa). It is unlikely that this is the 500kg of product M said to be in the SADF stores in the letter dated 9 November 1992.⁸³⁵
- 9 Nov. 1992 Letter from Basson, signed by Knobel, about what substances are in SADF stores:
- The following specialist chemicals are in stock at the South African Medical Services which will be worked up in the 1993/1994 financial year: (a) 1,000kg product B, (b) 500kg product M, (c) 30kg Product C.⁸³⁶ [Authors' note: these were BZ, methaqualone and cocaine, respectively.]
- 31 Nov. 1992 CMC of Project Coast decides that, given the upcoming signing of the Chemical Weapons Convention and the resulting difficulty in procuring chemicals, all procurement actions necessary to complete the offensive programme and which are dependent on external involvement should be expedited and completed by the end of 1992, if possible. R6.6 million was moved to the current financial year budget so that destruction can be carried out on 27 January 1993.⁸³⁷
- 14 Jan. 1993 South Africa signs the Chemical Weapons Convention.
- 29 Jan. 1993 Destruction of agents reported to the CMC.⁸³⁸
- 30 Mar. 1993 Certification of the destruction of chemical products on 27 January 1993. It is stated that the following products were in the load that was destroyed:
- 18 plastic drums (weighing 50kg, containing 100 litres, Product M) = 900kg (mandrax/methaqualone)

73 metal drums (weighing 12.5kg, 20 litres, product BX) = 912.5kg (MDMA)

2 metal drums (12.5kg, 20 litres product C) = 25kg (Cocaine)

2 containers (about 6kg, 12 litres product P) (it is not known what Product P was)

2 small metal drums (about 6kg, 12 litres, Product C) = 12kg

11 green metal drums (80kg, 200 litres, Product B) = 880kg (BZ)

4 paper drums (50kg, 200 litres, 2 with product M and 2 with product B) = 100kg each

2 cardboard boxes with 60 mm and 81 mm mortars

Total Product M = 1,000kg and Total Product C = 37kg

Maj.-Gen. Verbeek states it is not necessary to test the contents because it would draw too much attention.⁸³⁹

End Mar. 1993 CMC decides that Basson must travel to Croatia to recover money lost during the procurement transaction.⁸⁴⁰

After Mar. 1993 Mijburgh approaches Beukes to encapsulate a substance on Basson's orders for a State contract. He makes 1 million capsules from which Koekemoer takes samples. The police find the samples to contain MDMA.⁸⁴¹

7 April 1993- Basson in Croatia.⁸⁴²
7 May 1993

May 1993 Brig. Strauss of SAP Forensic Labs receives 4 samples from Ben Steyn marked B, BX, C and the fourth with no identification. He finds them to be:

B = 1-methyl-3-piperidyl benzilate

BX = 3,4-methylenedioxymetamphetamine hydrochloride (MDMA)

C = cocaine hydrochloride

- The fourth sample is found to be methaqualone.⁸⁴³
- 11 May 1993- Basson intercepts the Vatican bearer bonds intended for
14 May 1993 weapons purchase for the Croatian government.
- 28 June 1993 Basson arrested in Switzerland.
- 30 June 1993 Basson released.
- 2 July 1993 Basson back in South Africa.
- 24 Jan. 1994 CMC instructs Basson to draw up the write-off values for
the drugs allegedly destroyed.⁸⁴⁴
- 1 Feb. 1994 Write-off values as supplied by Basson:⁸⁴⁵
- Substance M: first 500kg = R6,900,000
Second 500kg = R7,440,000
Total = R14,340,000
Substance BX 912.5kg = R3,650,000
Substance C 37kg = R2,590,000
Substance P 1kg @ R40,000/kg = R40,000
Substance B 980kg = R1,176,000
TOTAL VALUE = R21,796,000
- 18 Feb. 1994 Letter of demand for payment from Organochem's Jerry
Brandt who supplied the formula for the production of
MDMA and 4 PMK deliveries. PMK was one of the starting
substances for a particular process of manufacturing
MDMA, a process that was ultimately not used.⁸⁴⁶
- 27 April 1994 First democratic election in South Africa.
- 9 Jan. 1995 Minutes of CMC indicate Gen. Knobel has not yet
contacted the Attorney-General regarding destruction of
chemicals. The minutes state that Knobel wanted to first
get a written report from Col. Venter of the SAP and that
the Attorney-General wanted a valuation of the substances
destroyed.⁸⁴⁷

- 29 Mar. 1995 Surgeon-General is instructed to find out from the Attorney-General what his investigation found.⁸⁴⁸
- 13 Sep. 1995 South African ratification of the Chemical Weapons Convention.
- 29 Jan. 1997 Basson arrested on charges of drug trafficking by the South African Narcotics Bureau during a deal in which he was alleged to have sold a large quantity of Ecstasy capsules to Grant Wentzel.⁸⁴⁹ Basson contested this allegation saying that he was unaware that a refuse bag containing the Ecstasy was contained in a box of wine which Wentzel had allegedly given him. Basson said that transaction with Wentzel involved the sale of small arms. His version was later accepted by the court.
- 12 May 1997 Letter from the Attorney-General to the Head of the South African Air Force, Hechter, requesting details of the flight during which the drugs allegedly were destroyed.⁸⁵⁰
- 27 May 1997 Letter from the Head of the South African Air Force stating that there was no list of passengers for the flight and that the 4 or 5 people aboard were not known to the Air Force; that there were no flight plans and that there were allegedly 20 blue drums on board.⁸⁵¹

The final set of unanswered questions about the closure of the programme relates to the whereabouts of the technical information. Towards the end of the programme, in 1993, the CMC decided that all technical data generated by the programme should be saved on optical disk and the documentation destroyed. Prior to this, at the end of 1989, Basson and Knobel had written to the Deputy Auditor requesting authorisation to destroy documents relating to the project. The letter notes that all technical, scientific and operational documentation had been kept at a central office, known as Project Chancellor, since 1987.⁸⁵²

Three reasons were given for the request to destroy the documentation: the large amount of space needed to store the documents and the difficulty in ensuring security; some of the documents are no longer relevant since there has been a change in the philosophy behind the

project; and future directions in the development of the project render some of the documentation irrelevant.⁸⁵³

Basson and Knobel's letter argues that by destroying the documentation, more security would be afforded to the project, and that since most of the technical documentation was lodged with the "sub-projects" nothing would be lost.⁸⁵⁴ It is presumed that the sub-projects are the front companies. It was also said that the sub-projects had already been ordered to destroy any documentation that could link them to the SADF. Information relating to project management would only be kept for two years, for purposes of auditing. The requests were approved by the Deputy Auditor in 1990.

A year later, in 1991, Philip Mijburgh changed the name of his company Medchem Technologies to Data Images Information Systems.⁸⁵⁵ This company was contracted to place all technical information of Project Coast on optical disk. The company Data Images still existed in 1998 when Mijburgh testified at the TRC hearing.

When questioned at the TRC hearing, Mijburgh said he did not know what happened to the disks or whether the technical documentation had been destroyed as ordered.⁸⁵⁶ Klaus Psotta and a woman whose surname he could not remember, worked on capturing the information on disk. (Knobel testified that Dr Kobus Bothma was also involved with this process.)⁸⁵⁷ Mijburgh testified that Basson was not involved in the data capturing process at all, save for giving the initial instruction in 1992 or 1993 for the work to be done. Mijburgh stated that all research reports and related documents from Delta G were captured on the disks. He was not able to confirm whether similar information from RRL was captured.⁸⁵⁸

It is not clear how Mijburgh was granted the contract to capture the information. He did testify that when the company Sefmed closed down, Data Images bought all its computer equipment and general office equipment.⁸⁵⁹

Gen. Knobel testified at the TRC hearing that 13 optical disks were obtained from Data Images and given to him by Col. Ben Steyn. This was confirmed by Steyn at the Basson trial.⁸⁶⁰ The disks were then apparently placed in a safe attached to Knobel's office. After the United States and United Kingdom ambassadors' approach in 1994, and particularly after

those countries expressed concern about the safety of the information on the disks, Knobel consulted President F.W. De Klerk. It was decided that the President, Knobel and Col. Ben Steyn would all have to be present in order for the disks to be accessed. Accordingly, the smaller safe containing the disks was placed inside a large safe which required two keys and a combination to open it. The President had one of the keys to the large safe as well as the combination, Gen. Knobel kept the other key to the large safe and Col. Steyn had the combination of the large safe and the key of the smaller safe. With the change in government in April 1994, the situation remained the same. After the 1995 *démarche*, the key and combination in his control was passed over to Deputy President Thabo Mbeki.⁸⁶¹

There is evidence that the technical information from Project Coast was not destroyed as Basson had stated to a CMC meeting in January 1995.⁸⁶² Gen. Knobel was mandated at this meeting to determine whether the process of capturing the information had been completed correctly and that all the documents had been destroyed. Knobel's action in this regard consisted of interviewing Basson who assured him that the process had been successfully completed. Accepting Basson's explanation at face value, as he did, Knobel was at best casual with information of profound public health importance. RRL scientists interviewed by the authors said they had not handed over all their project reports as requested by RRL management and that they retained their reports. Technical project documents from both Delta G and RRL were found in a number of trunks at the time of Basson's arrest in 1997. Basson told the court that he had believed the documents to have been destroyed. The Judge found that Basson took steps to destroy the documents and believed that they had been destroyed.⁸⁶³

A number of questions pertaining to the documentation of Project Coast remain unanswered: What is on the disks? How many copies of the disks exist? Are they all secure? Indeed, do such disks exist at all? Are all the technical documents found in Basson's trunks captured on the disks? How many of the scientists retained information on the projects they carried out?

BASSON'S ARREST AND THE TRC HEARING

Between 1992 and 1993, Basson started a procurement company called Global Management to “seek foreign markets for South African-made products”.⁸⁶⁴ Five people were recruited to work for the company, Jerry Brandt (Managing Director of Organochem⁸⁶⁵), Marlène Brand, Solly Pienaar, Steve Martin and Grant Wentzel.⁸⁶⁶

Wentzel described himself as a commodities broker who had dealt in canned fruit, ostrich meat and leather, hi-tech machinery, pumps and unwrought gold (to Japan). He told the court that he had maintained regular contact with Basson over a number of years during which time Basson had advised him how to structure business deals. Basson helped him to obtain AK-47s for a particular deal.⁸⁶⁷

The events leading to Basson's arrest in January 1997, began when Wentzel was experiencing financial difficulties. Steve Martin, his colleague at Global Management, told Wentzel a way out of his difficulties could be in a market for Ecstasy. Sometime before this, Brandt had told Wentzel he was sure Delta G had manufactured Ecstasy. Wentzel then allegedly approached a Delta G scientist, Gert Lourens, who warned him that the business was “too risky”. Wentzel claimed in his testimony during the Basson trial that shortly thereafter he was called by Basson who allegedly gave him 100 capsules of the drug.⁸⁶⁸ Wentzel claims he passed these on to Steve Martin in exchange for R4,000. A series of deals then took place. Wentzel was arrested. He agreed to work with the police in creating a trap for his supplier who, he claimed, was Wouter Basson. The deal was tape-recorded by the police. Wentzel, who was wearing a recording device, was heard saying that the items were destined for Cape Town. The arrest of Basson was made by the South African Police's Narcotics Bureau.⁸⁶⁹ Basson said that, contrary to Wentzel's claims, he was not involved in selling Ecstasy to Wentzel. He alleged that the interaction between the two men related to a deal involving the sale of AK-47s to Pakistan.⁸⁷⁰ The Judge found that Basson was not the person who supplied Wentzel with the Ecstasy.⁸⁷¹

Basson's arrest and the discovery of Project Coast documents set in motion a chain of events which led to the public hearing of the Truth Commission in 1998 and Basson's criminal trial which in 1999. Before Basson's arrest the TRC had only the report of the Steyn Commission which had been handed to the State President. The report contained prima facie indications of Basson's involvement in drug trafficking and of the use of poisons for assassination but, the allegations made in the report were unsubstantiated.

Shortly after Basson's arrest in 1997, President Mandela instructed the Surgeon-General (Gen. Knobel), the Deputy Director of the National Intelligence Agency, and the Project Officer who succeeded Basson, Col. Ben Steyn, to brief the TRC about the chemical and biological warfare programme. It was a secret briefing open only to a select group of senior TRC members who had top-secret security clearance from the NIA.

Towards the end of 1997 the TRC received an amnesty application from Jan Lourens. This application was the first indication that there was justification for an investigation into Project Coast by the TRC's Human Rights Violations Committee. Lourens's application was vague and uninformative, but it named individuals and front companies associated with Project Coast and referred to the production of assassination weapons.

Shortly after Basson was arrested, the four trunks of Project Coast documents were found at the home of his associate Samuel Bosch. These documents detailed the nature of the research conducted at the Project's front companies, the finances of the companies and details of service companies. The TRC was notified of the discovery of the trunks and an agreement was reached between the National Intelligence Agency, the Office for Serious Economic Offences, the office of the Gauteng Attorney-General and the TRC, that each of these bodies would have unhindered access to the documents in order to pursue their investigations. The conditions under which the investigators were allowed access to the documents were strict. The documents could not be used outside of the secure offices of the National Intelligence Agency.

The debriefing of Jan Lourens provided names of some of the scientists involved in the programme who were interviewed by the TRC investigators. A few scientists were willing participants in the process, and others saw themselves as having no option but to co-operate. Most, however, were

afraid of public exposure and many declined to see the investigators or were impossible to find. More than 40 interviews were conducted and a relational database of all documents relevant to the investigation was created.

Two weeks before the scheduled hearing date, TRC Commissioners and investigators were summoned to urgent meetings with the Ministry of Defence, the Ministry of Foreign Affairs, the Surgeon-General and the National Intelligence Agency. The TRC delegation was shocked to find the government bodies united in their wish to prevent public exposure of the programme. The TRC was warned of the threat the hearing posed to foreign affairs, not least because documents relating to the 1993 and 1994 démarches of the United States and the United Kingdom were found in the trunks. It was argued that if details of these démarches were to emerge, trust between the three countries would be severely compromised.

The TRC remained steadfast in its determination to expose the programme to the country and the world, in accordance with its mandate. TRC investigators, Commissioners and their scientific advisor Peter Folb were required to sit around a table with Col. Ben Steyn, Gen. Knobel, and NIA agents to determine which documents could and which could not be used in the public hearing. A policy was finally agreed upon: not to make public any documents that could provide technical information to people wishing to prepare chemical or biological weapons.

Three categories were devised in which to classify the documents (1) those that could not be used because they were of a technical nature or related to the démarche; (2) those which the TRC could use but not make public and (3) those documents which the TRC could use and make public. By far the largest number of documents fell into this latter category.

On Friday 5 July, three days before the hearing, Gen. Knobel handed to the investigators a new set of documents, which he tabled subsequently at the TRC hearing, thus placing them into the public domain. He explained that he would require these documents in his personal defence.⁸⁷²

Before the hearing began on Monday 8 June 1998, the government, represented by its legal advisor Fink Haysom, again presented an argument to the TRC that the hearing be held in camera. He was supported by legal representatives from the Department of Foreign Affairs and the head of the

Council for the Non-proliferation of Weapons of Mass Destruction, Abdul Minty. The TRC determined that the hearing should go ahead with full public disclosure. The witnesses were:

Jan Lourens

Charles Van Remoortere (One-time owner of Protechnik, Hazmat and Technotech, and associate of Basson)

Dr Daan Goosen (first managing director of Roodeplaat Research Laboratories)

Dr Schalk Van Rensburg (former director at RRL and head of the Animal Ethics Committee there)

Dr Mike Odendaal (former head of Microbiology at RRL)

Dr Johan Koekemoer (former head of Research at Delta G Scientific, the person responsible for the manufacture of MDMA)

Gen. Lothar Neethling (former head of the Police Forensics Laboratory and close associate of Basson)

Dr Wynand Swanepoel (former MD of RRL)

Dr Philip Mijburgh (former MD of Delta G)

Gen. Daniel Knobel (former Surgeon-General and Project Manager)

Dr Wouter Basson (former Project Officer).

Whilst Lourens, Van Remoortere, Odendaal, Van Rensburg, Goosen, Koekemoer and Knobel agreed to give their testimony willingly, Mijburgh, Swanepoel and Basson were reluctant witnesses. They had denied TRC investigators interviews prior to the hearing, and their legal counsel argued that they should not be called upon to testify because there were indications that all three were to be indicted by the Attorney-General. Basson maintained that his right to silence and his right not to incriminate himself were protected by the Constitution. On the basis of this argument he challenged the TRC in the Cape Town High Court. The court decided in favour of the TRC. On 31 July, after more than a month of delays, the TRC finally heard Basson's evidence.

The hearing was closely monitored by the world media. It was the first time that the managers, scientists and architects of any country's CBW programme had been called to publicly account for their actions. The

media coverage of the hearing was extensive, albeit sensationalist and often inaccurate. The Freedom of Expression Institute demanded that the in-camera bail hearing of Basson be made available to the public. They won their court case.⁸⁷³ Their out-of-court agreement also ensured that the criminal trial of Basson could not be held in camera.

The TRC process allowed the scientists an opportunity to talk about and question their involvement in the programme. It was a cathartic experience for many of them. They spoke afterwards of a tremendous sense of relief that could lead to some atonement for what they had done. A number of the scientists have since pledged to support any processes to prevent other scientists from finding themselves trapped in similar circumstances.⁸⁷⁴

At the outset of the TRC investigation, National Intelligence Agency agents told the investigators they were concerned that exposure of the scientists could put them in physical danger, as well as the temptations of being recruited by CBW proliferating countries. None of the scientists has so far reported threats to their safety.

The scientists who also went on to give evidence at the Basson trial have found themselves receiving much media attention over the past two years.

The personal experiences of scientists who testified at the TRC hearings has varied. Until the TRC hearings, some had successfully kept the nature of their work at the warfare facilities a secret, even from their families. Revelations of their involvement in the production of warfare agents understandably caused enormous personal stress. Some experienced difficulties at work. Several had to prove their co-operation with and commitment to the TRC process to their employers. Others found that colleagues were reluctant to work with them or to include them in research teams, despite their professional abilities. Nor did their families escape persecution.⁸⁷⁵ Nevertheless, despite the difficulties of speaking out, most of the scientists who testified at the TRC agreed to work closely with the authors in revealing the nature of the programme and in formulating policies to educate young scientists to prevent them from finding themselves in similarly unethical situations.

It remains unclear to the TRC investigators why the post-apartheid government was so reluctant to expose Project Coast. Perhaps it was concerned about protecting foreign countries that may have assisted the former apartheid government in developing chemical and biological weapons. Government officials explained that since they had so little information about the CBW programme themselves, they would not be able to predict what the scientists were going to say at the hearing, and were worried that the scientists might reveal information that could lead to proliferation. The government representatives also argued that revelations about international assistance to the programme could have a negative impact on South Africa's foreign relations.⁸⁷⁶

Findings of the Truth and Reconciliation Commission with regard to the Chemical and Biological Warfare programme⁸⁷⁷

The Commission found that:

- Scientists were recruited to the CBW programme from universities and research institutions in South Africa because of their 'patriotism' and loyalty to the government of the day. They were lured by generous conditions of service, facilities, working arrangements and pay packages.
- Work was conducted on a need-to-know basis, subverting the very purpose of science. The free discourse of information and ideas that characterises scientific endeavour was subverted. Moreover, those who were appointed were intimidated and threatened, even with their lives, if they stepped out of line.
- Overall understanding of the programme, and its co-ordination and direction, were vested in the hands of one person, Dr Wouter Basson, whose ability and (it was assumed) integrity were unquestioned both by those who served under him and by those to whom he had to report. It emerged in the hearings that the military command was dependent on Dr Basson for the conduct and command of the programme, even at a time when there were sufficient indications that Dr Basson might not be trustworthy and that there were serious aberrations taking place.
- The military command, and pre-eminently the surgeon general, Dr DP Knobel, were grossly negligent in approving programmes and allocating large sums of money for activities of which they had no understanding, and which they made no effort to understand.
- The CBW programme made the self-enrichment of individuals possible and opened the way for a cynical subversion of its ostensible

aims in the production of murder weapons for use against individuals.

- An extremely complicated arrangement of front companies supported the programme, a part of whose intention was a plan for its own ultimate privatisation. This, it appears, was intended from the start.
- The development of the programme would not have been possible without some level of international co-operation and support.

The role of the management committee:

- The CBW programme, and in particular its gross aberrations, would not have succeeded without the support, active and tacit, of the Co-ordinating Management Committee over the period 1988 to 1995.
- The Committee knew of the large-scale production of mandrax and Ecstasy and their purported use, but did not seek to establish reasons for this. It approved of the idea and lent its support directly... [T]here was no scientific basis for thinking that it would be an appropriate, safe or sensible form of crowd control.
- The Committee was aware of and authorised Basson's trips to Croatia, at great expense, to purchase 500kg of methaqualone as late as 1992, and assisted Basson when he was arrested in Switzerland in possession of fraudulent bearer bonds.

The surgeon general in particular:

- Knew of the production of murder weapons but refused to address the concerns that were raised with him, on the grounds that they did not fall under his authority. He was nevertheless fully aware that these activities happened in facilities under his direct control and were perpetrated by staff under his chain of command.
- Did not understand, by his own admission, the medical, chemical and technical aspects and implications of a programme that cost tens, if not hundreds of millions of rands.
- Made no effort to come to grips with these technical and medical issues, notwithstanding the fact that he was the highest-ranking medical professional in the military and that others in the military were wholly dependent on his judgement and discretion.
- Advised the Minister of Defence, on 7 January 1993, that South Africa should conceal from the Chemical Weapons Convention that the country possessed NGT (a new generation of teargas related closely to CR), recommending that South Africa should proceed with the research and development of NGT in a covert manner.

- Approved the budget for projects (in some cases alone, and in others in conjunction with his fellow officers on the management committee, with or without the full understanding of what he was doing) that had as their purpose the murder of individuals, and the undermining of the health, if not the elimination, of entire communities (for example, projects involving cholera, fertility drugs, botulinum, mandrax and Ecstasy).
- Agreed to the destruction of documents describing the activities and the financial aspects of these programmes. Instead, he should have ensured that the details of the programme were recorded and accessible, while limiting their accessibility to authorised persons. This would have safeguarded the massive investment, both financial and intellectual, while on the other hand guarding against use of the information for purposes of proliferation or criminal activities.

THE CRIMINAL TRIAL OF DR WOUTER BASSON

Wouter Basson was arrested by the Police Narcotics Division in January 1997, suspected of being involved in a deal to sell capsules of the street drug Ecstasy to an associate.

His bail application hearing followed ten months later. Applications were received from the office of the Attorney-General, the Ministry of Foreign Affairs, the South African National Defence Force, the National Intelligence Agency and the Council for the Non-Proliferation of Weapons of Mass Destruction, for the bail hearing to be held *in camera*. These State bodies argued for the need to maintain State secrets and claimed that the revelations of the bail hearing might lead to proliferation. The presiding judge ruled in their favour. It was only two years later, in 1999, after a lengthy legal battle fought by the Freedom of Expression Institute and the press, that the bail application hearing on the drug charges was made public.⁸⁷⁸

Basson was indicted for the possession of 3,158 capsules and 38.6 grams of Ecstasy (charges 25 and 28), for dealing in methaqualone (charge 29), for the possession of cocaine (charge 30—the alternative to this charge was a charge of possession of 100,000 mandrax pills and 1, 200 kilograms of methaqualone). He was also indicted for the procurement of 500 grams of the Thymus peptide, Thymosin⁸⁷⁹ and 500 kilograms of methaqualone (2-Methyl-3-(2-methylphenyl)-4(3H)-quinazolinone) which, it was alleged, he had intended to purchase in Croatia in 1992 (charge 19). Basson stood indicted on charges of murder, attempted murder, and assault with intent to do grievous bodily harm. All the charges related to activities alleged to have taken place while he was at Project Coast.

Basson's trial started in the Pretoria High Court in October 1999 before Judge R. Hartzenberg, with intense interest from the press. Soon after the trial began, legal argument by Basson's defence team, and a ruling by the judge, led to 6 of the original 64 charges against Basson being dropped.

One charge related to use of biological agents in Namibia prior to Namibia's independence in 1989. Others referred to murders in Mozambique and Swaziland. The judge ruled that Basson qualified for the general amnesty applicable to all South African security force members who had operated in Namibia prior to 1989. He also declared that incidents that had taken place outside the borders of South Africa could not be prosecuted in South Africa despite the fact that they may have been planned in the country and carried out by South African citizens.⁸⁸⁰

The amnesty the judge referred to was promulgated by the South African Administrator-General in South West Africa on 7 June 1989, shortly before the first Namibian democratic elections. The proclamation read:

“No criminal procedures may be instituted or continued following the date of this proclamation in any law court against any person included in sub-section (2) or (3) in respect of a crime committed by such person at any time prior to the date mentioned in the territory or elsewhere”.⁸⁸¹

Section (2) of the promulgation initially listed “a certain category of persons” but sub-section (3) of section 2 was later amended to specify “... persons who, while members of the South African Police, the South West African Police and the South African Defence Force, including the South West African Territorial Force, in the execution of their duties and activities in the territory committed an act or neglected to commit an act which represents a crime as covered by that sub-section”.⁸⁸²

Basson's legal team argued that in terms of Section 140 of the current Namibian Constitution, all Acts in place immediately prior to independence of Namibia in March 1990 remained in force. State Prosecutor Dr Torie Pretorius argued that the amnesty was applicable only to criminal proceedings in Namibia, and that Namibian law does not extend to South Africa. He said that the amnesty could not be used in South African courts to “protect South African soldiers who conspired to murder prisoners of war and throw their bodies into the sea”. He also noted that Basson had not applied to the TRC for amnesty and had therefore not availed himself of the opportunity to receive amnesty. Pretorius also argued that poison murders could never be justified as having been part of Basson's military duties.⁸⁸³ His arguments were rejected by the judge.

The first two weeks of the trial focused on the drug-related charges and evidence was heard from the South African Narcotics Bureau officials responsible for arresting Dr Basson in 1997. Evidence was presented by witnesses who claimed to have been involved in drug deals with Basson, including Grant Wentzel. After forensic evidence was presented to the court, Basson's defence counsel, Adv. Jaap Cilliers, conceded that the Ecstasy found in the boot of Basson's car was from the same batch as that found in the office of Delta G Scientific chief researcher, Dr John Koekemoer. Basson maintained that he had not sold Ecstasy to Wentzel.

The court heard extensive evidence from the former Surgeon-General, Gen. Niel Knobel, who made it clear that Basson had been left to run Project Coast without strict controls. He said that the Co-ordinating Management Committee had not wanted to know the details of Basson's activities. Knobel admitted on numerous occasions during the trial to not knowing the details of the scientific aspects of the programme.⁸⁸⁴

Forensic auditor Hennie Bruwer testified from his 800-page report, the result of his seven-year investigation into the funds the State believed Basson had misappropriated from Project Coast for personal gain. Bruwer set out to prove that Project Coast funds had been "laundered" through an international network of companies of which Basson was at all times the beneficial owner and in which some of his colleagues, friends and family members had financial interests. Basson refuted these allegations, arguing that he had used the companies to launder SADF funds and therefore to distance the SADF from sensitive procurements and to substantiate his cover as an international businessman.

The court heard that documents on the financial dealings of these companies were retrieved from American lawyer David Webster's office after an American court ruled that Webster had to make the documents available to South African investigators, despite client-attorney privilege. Based on these and other documents from various foreign banks, Bruwer declared that both the WPW Group and the Wisdom Group (two holding companies established by Basson), and all subsidiaries controlled by them, were set up to serve Basson's personal interests. In October 2000 the court moved to Jacksonville, Florida for two weeks to hear the evidence of David Webster and his wife Jane Webster. David Webster testified that he was unaware of Basson's military links and that he had considered all the deals he had brokered to have been for Basson's personal business. In his

findings, Judge Hartzenberg rejected Webster's claims that he had not known the nature of Basson's relationship with the SADF⁸⁸⁵ and found that the companies established by Basson, including the WPW and Wisdom Group had acted in the interests of the SADF and not to the personal benefit of Basson.⁸⁸⁶

In early February 2000 the State applied for Justice Hartzenberg to recuse himself from the trial. The prosecutors argued that the judge was biased and had prejudged the case before all the facts had been presented to the court. The Judge responded that his understanding of the companies established by Basson rested on the premise that the SADF had to act in a clandestine manner. He said that Basson had been given freedom by the Co-ordinating Management Committee of Project Coast to create covers for people associated with the programme and to procure equipment and substances without explanation. He said that the testimony of Gen. Knobel, that the CMC did not want to know the details of Basson's activities, justified his perception and it would take little to convince him that Basson had acted in the interests of the Project.

Justice Hartzenberg declined to recuse himself from the case. In giving judgement on the recusal application, he gave his views on the fraud section of the case as follows:

- Basson had been ordered to develop both an offensive and defensive chemical and biological warfare capacity for South Africa;⁸⁸⁷
- The project was top-secret and managed by the SADF's Co-ordinating Management Committee, made up of a small number of the most senior military officers;⁸⁸⁸
- The "need to know" principle had been strictly enforced and Knobel had testified that if it took theft, bribery or any other normally unacceptable means to acquire what was needed for the project, Basson was to "get the goods";⁸⁸⁹
- The CMC did not want to know where or how Basson did what he had to do, nor the names of people or countries involved, nor when, how and to whom payments were made;⁸⁹⁰
- To this end, Basson had been issued with three false passports by the SADF to support his cover as a wealthy international businessman with chemical interests.⁸⁹¹

Knobel testified that the SADF would have had no problem if Basson had been required to pay collaborators or spend money to help them create plausible cover stories in their own countries in exchange for their assistance. For example, share capital in a company might be purchased to support such a cover story. Knobel also testified that Basson carried out other tasks for the SADF, not connected to Project Coast, which he would not know about.

On 28 February, during the cross examination of Hennie Bruwer, defence Adv. Jaap Cilliers disclosed that the total budget for Project Coast for the financial years April 1987 to March 1993 was R270 million, including establishment and privatisation costs of Delta G Scientific and Roodeplaat Research Laboratories (R 60 million to set up, R70 million to privatise).

Operating costs of the two facilities averaged R21 million a year—R 9 million for Delta G Scientific and R12 million for RRL—or about R105 million for the six years of their operation. Bruwer told the court that from March 1990 to February 1991, the project had R48 million available, of which R6 million was allegedly defrauded (Charge 16). From March 1991 to February 1992, the budget was R60 million (US\$ 21 million at 1992 exchange rates).

Details emerged during the testimony of Tjaart Viljoen and banker Samuel Bosch of the luxurious lifestyles led by Basson, Philip Mijburgh, Wynand Swanepoel and other people linked to Project Coast. Much evidence was presented about their numerous overseas trips. Advocate Cilliers told the court that on many of these trips Basson had been conducting Project Coast business under the guise of being an international businessman.

In May 2000 the court heard evidence on the human rights violation charges. For the first time in a South African court, details emerged about a clandestine operation known as Barnacle, a forerunner to the Civil Co-operation Bureau. Established under the auspices of Special Forces, and adopting the *modus operandi* of the Rhodesian Selous Scouts, Barnacle was allegedly responsible for the “elimination” of “enemies of the state”, and of “own forces” that posed a security threat. As SADF soldiers gave evidence, a picture emerged of a unit that spent much of its time disposing of the bodies of SWAPO members who, after interrogation, were of no use of the

defence force and whose release would pose a security threat. The State hoped to establish that Basson supplied the drugs scoline, tubarine and ketamine used by Barnacle operators to murder their victims. Basson repeatedly denied his involvement in these activities. Judge Hatzenberg found the soldiers accounts of their involvement in the murder of SWAPO members and those viewed as security threats by the SADF (which included both soldiers who spoke loosely and opponents of apartheid) were true. He found, however, that they had falsely implicated Basson in the supply of drugs for this purpose, in order to avoid their own prosecution.⁸⁹²

Scientists' testimony followed that of the soldiers. Jan Lourens told the court about the covert murder weapons he had designed. Scientists at RRL told the court of the production of biological toxins and the testing of covert weapons that they believed were used to murder enemies of the State. André Immelman testified about the "Verkope" list. He told the court it was a record he had kept of items he had provided to people introduced to him by Wouter Basson. He identified some of these people as members of the South African Police.

Evidence was heard from Dr Jacobus Bothma, a member of the Special Operations unit under the command of Basson. Bothma had been a member of the quick response unit for dealing with medical emergencies at the CBW facilities. The prosecution succeeded in gaining a court order against publication in South Africa of any photographs of Bothma, on the grounds that he intended re-establishing himself as a medical practitioner in South Africa and feared that his wife and children might be victimised as a result of his testimony. Bothma testified about his involvement in an incident in which three men were murdered. He told the court that before leaving on the mission he had been given a substance which he was instructed to smear on the men's skins and to note the effect it had. After conducting the experiment the men were injected with a mixture of drugs that had caused their death.

Anton Ackermann, who had led the fraud case against Basson, put volumes of documents before the court to prove the State's case. He called witnesses from several countries abroad to testify to their role in the establishment of what the state referred to as Basson's business empire.

Belgian citizens Bernard Zimmer and Charles van Remoortere told the court how they had made bank accounts in Luxembourg available to

Basson for his use, but said that they were not aware of his using the accounts for acquisition on behalf of the chemical and biological warfare programme.⁸⁹³

David and Jane Webster said that they had helped Basson establish trust accounts in Jersey and the Cayman Islands, and that they had managed many of his other business interests. They maintained that they were not aware of his involvement in South Africa's chemical and biological warfare programme.⁸⁹⁴

Swiss pharmacologist David Chu told the court that he had become a close friend of Basson and that Basson was his son's godfather. He had visited Roodeplaats Research Laboratories with a view to marketing the company abroad. He too claimed to be unaware of Basson's military activities.⁸⁹⁵ The Judge rejected Webster, Zimmer and Chus' claims that they were unaware that, through Basson, they were assisting the SADF in sanctions busting activities.⁸⁹⁶

Judge Hartzenberg refused to allow the testimony of Roger Buffham, who Basson claimed was a former British intelligence agent with good connections at Porton Down. Buffham claimed in press interviews that he, too, was not aware of Basson's double role of businessman and head of the former CBW programme.

Basson insisted that his international associates were all selected for their sanctions-busting experience. He said that David Webster was particularly valued because of his ability to create false documentation. He said that most of the documents used by the State as evidence were in fact fabricated.⁸⁹⁷ He went further to claim that, with the full knowledge of his military superiors, he was allowed free range to establish a complex network of foreign intelligence agents. These included agents from the Soviet Union, East Germany and Libya, despite the fact that, at the time, the apartheid government claimed its greatest threat came from Soviet and Cuban forces in Angola backing the liberation movements fighting apartheid.

Basson claimed that German industrialist Herbert Blücher introduced him to a group Basson called "an international CBW mafia". Basson said he began operating on behalf of this group, with the approval of his SADF superiors.⁸⁹⁸ He claimed that one of the key figures in the group was the

man described by David Chu as a car rental agent, Dieter Dreier. Basson told the court that car rentals were only a sideline of the influential East German intelligence agent.⁸⁹⁹ In an interview with Swiss journalists, Dreier claimed never to have met Basson and said he had no connections with East Germany, having never visited the country.⁹⁰⁰ According to Basson, the person for whom he did the most work was a senior Libyan intelligence agent, Abdul Razzaq.⁹⁰¹

Basson explained in testimony that the many luxury homes and apartments purchased in South Africa and abroad were for his foreign “principals”. He maintained that the Tygerberg Zoo the in Western Cape had been purchased with the view to providing these principals with access to animals for furthering their research into chemical substances such as heavy metals elements and pheromones. Basson said that the research of Project Coast in these fields was carried out in various South African universities. The pheromone research, he said, was part of the quest for effective crowd control measures, since certain pheromones raise stress levels, and the first principle of crowd control is “break the cohesion”.⁹⁰² No other evidence was heard to support this contention.

Basson denied the State’s claim that the trunks of documents pertaining to the secret CBW programme had belonged to him. He said that he did not know to whom the trunks belonged, nor was he responsible for packing them. This made it impossible for the State to prove a charge illegal possession of top-secret documents and Basson was found not guilty on this charge by the judge.

One of the most serious and far-reaching allegations to be made by Basson was that the chief of Swiss Intelligence, Peter Regli, had co-operated with him in a joint deal to procure BZ for South Africa and enriched uranium for Switzerland. The prosecutors had attempted to call Regli as a witness at an early stage of the case but found that Regli was unwilling to testify. Regli still held the position of head of the Swiss Intelligence services at that time, and the Swiss authorities were unwilling to allow him to testify.

By the time the State closed its case, the Swiss authorities’ investigation into Regli’s relationship with Basson had been re-opened, and Regli was no longer in his position as head of intelligence. Regli repeatedly contacted the South African prosecutors requesting that he be allowed to testify. An application by the prosecutors for the court to call Regli, Dieter Dreier and

Libyan, Yusaf Murgham, failed. The judge argued that he did not believe that they would add materially to the case and that he had no reason to believe that the three men would tell the court the truth. The court therefore relied entirely on Basson's evidence regarding the nature of his relationship with them.

In June 2001, after the State had closed its case and the defence had argued for Basson's acquittal on many of the charges against him, Judge Hartzenberg acquitted Basson of the following charges:

- Charge 2: R 220,789 paid to Professor Aubin Heyndrickx for visit to Iran.
- Charge 6: R 200,000 paid to Roger Buffham's company, Contemporary Systems Design, for electronic circuit blueprints for reverse engineering of Chemical Agent Monitors.
- Charge 10: R 67,424 paid to Wilfred Mole's company, RF Telecommunications, for rental of offices for Project Coast.
- Charge 28: Possession of 38.6 grams of Ecstasy found in Basson's possession in blue steel trunks.
- Charge 29: Trafficking in Mandrax (96.9 grams) and cocaine (14 grams) found in trunks.
- Charge 30: Trafficking in Mandrax (100,000 tablets offered to Danie Phaal).
- Charge 36: Incitement to murder (five Renamo members who allegedly killed Secretary-General Orlando Cristina).
- Charge 37: Assault with intent to do grievous bodily harm (chemical interrogation of five Renamo assassins).
- Charge 38: Conspiracy to murder ANC spy Roland Hunter with mamba venom.
- Charges 39-41: Attempted murder (of three unidentified victims at Dukuduku on whom jelly-like substance was smeared by Dr Kobus Bothma).
- Charge 52: Murder (of Special Forces operator Victor de Fonseca).

Charge 57: Attempted murder (of the Rev. Frank Chikane).

Charge 60: Conspiracy to murder (of Dullah Omar).

At the time, the judge did not give his reasons for acquitting Basson of these charges.

The State's case was fraught with problems. Many witnesses were reluctant to testify, some refused to do so at all, and others were openly hostile to the prosecution. The prosecutors had to rely on testimony from operators who had carried out murders many years before and whose accounts of the incidents did not always tally. The greatest challenge for the State in proving the human rights violation charges was to link Basson directly to the manufacture and exchange of assassination weapons. While there was no dispute that Basson was head of the chemical and biological warfare programme, he denied that he had ever been involved in the development of assassination weapons, or that he had facilitated such weapons being given to operators by the scientists. While the scientists testified to the manufacture of assassination weapons and the operators testified to receiving and using (or intending to use) them, every suggestion of his involvement was denied by his advocate. Ultimately Basson's version of events was found to be the most believable by Judge Hartzenberg.

On 11 April 2002, after a trial lasting over two years and involving testimony from 153 witnesses, Judge Harzenberg found Basson not guilty on all charges. The judgement will be appealed by the State, they were given leave to appeal Hartzenberg's refusal to recuse himself, not leave to appeal the entire judgement. This means that, should their appeal be granted the case will have to start from the beginning before a new judge.

Notes

- ¹ Peter Batchelor and Susan Willett, *Disarmament and Defence Industrial Adjustment in South Africa*, Stockholm International Peace Research Institute, Oxford University Press: New York, 1998, p. 37.
- ² “Special Investigation into Project Coast: South Africa’s Chemical and Biological Warfare Programme”, Chapter 6, TRC Final Report, Vol. 2, 1999.
- ³ Verkleinde Verdedigingsbevelraad, Notule van vergadering gehou om 07H30 op 25 Oktober 1990 te Samik, Aanhangsel A: Voordrag aan Verkleinde VBR: Voorgestelde filosofie vir chemiese oorlogvoering vir die SA Weermag-Beginsels en teurgvoer oor huidige stand in die SA Weermag [Reduced Defence Command Council, Minutes of meeting held at 07h30 on 25 October 1990 at Samik, Appendix A: Proposed philosophy for chemical warfare for the South African Defence Force-Principles and feed-back about the current status in the SA Defence Force], SADF document handed to the TRC by Gen. Knobel during the TRC hearings into chemical and biological warfare in June and July 1998.
- ⁴ Ibid.
- ⁵ Weaponization means the making of a chemical or biological agent into an actual weapon, which is to say a war-fighting device that a potential user service has accepted into its operational inventory after due consideration. A weaponized agent is a substance that has been selected for its aggressive properties and for which routes to acquisition in adequate quantity have been worked out; that has then been formulated into disseminable payload for a munition whose dissemination characteristics are both militarily useful and predictable; and for which that same munition has been made into a weapon by virtue of acceptance into the arsenal and doctrine of potential user services. Chandré Gould electronic communication with J. Perry Robinson, 19 August 2000.
- ⁶ Certain of the charges against Basson, the presiding Judge ruled, were outside the jurisdiction of the South African courts. These charges must be regarded as not having been proved. The applies also to acts allegedly perpetrated in Namibia and for which the Judge ruled amnesty had been granted. (Judgement in the case of *The State vs Wouter Basson*, in the High Court of South Africa, Transvaal Provincial Division, Case number CC32/99, 12 October 1999.)

- ⁷ Chandré Gould and Peter Folb, "The South African Chemical and Biological Warfare Programme: An Overview", *Nonproliferation Review*, Vol. 7, No. 3, Fall-Winter 2000, p.15.
- ⁸ Maj.-Gen. B. Mortimer, "SA Defence Force involvement in the internal security situation in the Republic of South Africa", Submission in respect of the former SADF to the Truth and Reconciliation Commission, Cape Town, 21 October 1996.
- ⁹ Gavin Cawthra, *Brutal Force. The Apartheid War Machine*, London: IDAF, 1986, pp. 24-25.
- ¹⁰ Joseph Hanlon, *Beggar Your Neighbour*, London: CIIR, 1986, p. 7.
- ¹¹ *Ibid.*, p. 25.
- ¹² James Selfe, "The Total Onslaught and the Total Strategy: Adaptations to the Security Intelligence Decision-Making Structures under P.W. Botha's Administration", thesis submitted in fulfillment of the requirement for the degree of Master of Arts, University of Cape Town, 1987, p. 119.
- ¹³ Cawthra, *op. cit.* note 3, p. 29.
- ¹⁴ Quoted in Selfe, *op. cit.* note 12, p. 120.
- ¹⁵ Mortimer, *op. cit.* note 2, p. 4.
- ¹⁶ *Ibid.*, p. 5.
- ¹⁷ Gen. Magnus Malan, "Submission to the Truth and Reconciliation Commission", 7 May 1997, p. 9.
- ¹⁸ *Ibid.*, p. 13.
- ¹⁹ Mitchell Reiss, *Bridled Ambition: Why Countries Constrain Their Nuclear Capabilities*, Washington D.C.: Woodrow Wilson Center Press, 1995, p. 28.
- ²⁰ Personal discussion between Chandré Gould and Willem Steenkamp, Cape Town, 7 December 2000.
- ²¹ *Ibid.*
- ²² *Ibid.*
- ²³ *Ibid.*
- ²⁴ Chandré Gould interview with Gen. (ret.) Pierre Steyn, former Deputy Chief of the Defence Force, Pretoria, 17 January 2001. A second person, who we have agreed not to name, has confirmed the contents of the interview.
- ²⁵ *Ibid.*
- ²⁶ Chandré Gould interview with Gen. (ret.) Pierre Steyn, former Deputy Chief of the Defence Force, Pretoria, 17 January 2001.
- ²⁷ Steenkamp, *op. cit.* note 20, 7 December 2000.

- 28 During the political transition in the 1990s South Africa experienced a surge in the levels of political violence. This was blamed on a Third Force, which was understood to be disgruntled apartheid security force members and their paid assistants, people who were resistant to the imminent political change. The TRC's final report refers to the Third Force in the following way: "the term 'third force' began to be used increasingly to describe apparently random violence that could not be ascribed to political conflict between identifiable competing groups. Rather it appeared to involve covert forces intent on escalating violence as a means of derailing the negotiations process." TRC Final Report, Chapter 7, Vol. II, 1999, <http://www.polity.org.za/govdocs/commissions/1998/trc/2chap7.htm>.
- 29 "Moenie krap waar dit nie jeuk nie."
- 30 "Jy sukkel met die stelsel."
- 31 Chandré Gould interview with Gen. (ret.) Pierre Steyn, former Deputy Chief of the Defence Force, Pretoria, 17 January 2001.
- 32 David Fig, "Apartheid's nuclear arsenal: Deviation from development", in Jacklyn Cock and Penny McKenzie (eds.), *From Defence to Development: Redirecting Military Resources in South Africa*, Cape Town: David Philip, 1998, p. 164.
- 33 Ibid.
- 34 Testimony of Gen. Lothar Neethling in the transcript of the TRC hearing into chemical and biological warfare, Cape Town, 11 June 1998.
- 35 Chandré Gould interview with Gen. Constand Viljoen, Cape Town, 18 May 2000.
- 36 Gen. Constand Viljoen, correspondence with Chandré Gould, 30 March 2001.
- 37 Viljoen, op. cit. note 35, 18 May 2000.
- 38 Chandré Gould telephonic interview with Dr Vernon Joynt, 27 August 2001.
- 39 *Chandré Gould*: Can you please explain to me why it was that CR or New Generation Teargas was decided on. What was wrong with CS? Keeping in mind that you were looking for a calming agent and CR is more irritating than CS and is certainly not a calming agent.
Jannie Geldenhuys: It is not? It was my understanding that it was more calming. That is what Liebenberg told me. It was the intention to mix the MDMA with the teargas.
Chandré Gould: I have not seen any evidence to suggest that the MDMA was weaponised and certainly no evidence that the MDMA

was going to be mixed with CR. Swartklip Products said that they had never done any weaponisation of MDMA and they were the people responsible for the weaponisation of CR.

Jannie Geldenhuys: That was at the end of my tenure. When the issue of a calming gas became prominent Kat [Liebenberg] told me that they were doing that—making a calming teargas. It was what had been ordered and what was going to be produced.

Chandré Gould interview with Gen. Jannie Geldenhuys, Pretoria, 4 September 2001.

40 Batchelor and Willett, op. cit. note 1, p. 32.

41 Ibid., p. 2.

42 Ibid., p. 2.

43 Chandré Gould interview with Gen. Jannie Geldenhuys, Pretoria, 4 September 2001.

44 For a thorough examination of the conflicts in Angola and Mozambique and the role of the South Africans in these conflicts see William Minter, *Apartheid's Contras: an inquiry into the roots of war in Angola and Mozambique*, London: Zed Books, 1994.

45 Tony Weaver, "The South African Defence Force in Namibia", in Laurie Nathan and Jacklyn Cock (eds.), *War and Society: The Militarisation of South Africa*, Cape Town: David Philip, 1989.

46 Some members of the South African police were required to perform tours of duty in Rhodesia during the war of independence. The South Africans received training from the Rhodesian Light Infantry and the Rhodesian Special Air Services. During training courses they were exposed to the way in which members of the Selous Scouts and other covert units of the Rhodesian security forces operated. (See De Kock and Gordin, *A Long Night's Damage: Working for the Apartheid State*, Saxonwold: Contra, 1998, p. 58.)

47 Ibid., p. 71.

48 Ibid.

49 Peter Stiff, *The Silent War: South African Recce Operations 1969 -1994*, Johannesburg: Galago Press, 1999.

50 Jeremy Grest, The South African Defence Force in Angola, in Laurie Nathan, and Jacklyn Cock (eds.), *War and Society: The Militarisation of South Africa*, Cape Town: David Philip, 1989.

51 Aubin Heyndrickx, Toxicological report on the second mission, February 15-20, 1988 in Angola (UNITA, Mr. Savimbi), 8 March 1988.

52 Minter, op. cit. note 44, p. 6.

53 Ibid., p. 7.

- 54 Viljoen, op. cit. note 35, 18 May 2000.
- 55 Hendrik Ellert, *The Rhodesian Front War*, Gweru: Mambo Press, 1989. Ken Flower, *Serving Secretly*, Johannesburg: Galago, 1987. Peter Stiff, *See you in November*, Johannesburg: Galago, 1985. Tom Mangold and Jeff Goldberg, *Plague Wars: A true story of biological warfare*, London: Macmillan, 1999.
- 56 Stiff, op. cit. note 55.
- 57 *Black and White Films*, directed by Ingrid Sinclair, Zimbabwe, 1996.
- 58 Peta Thornycroft interview with Jan Lourens, Johannesburg, 1997.
- 59 Peta Thornycroft interview with M.J. McGuinness, Pretoria, October 2000.
- 60 Mike Woods, e-mail communication with Peta Thornycroft, 2000.
- 61 Reports from the Officer in Charge of Operations to Officer Commanding Special Branch Headquarters and the Director-General Central Intelligence Agency. Rhodesian Special Branch documents dated June-November 1977.
- 62 "Selous Scout 'Forts' were constructed by the military; police members merely being afforded office and cell accommodation therein. Irrespective of rank, the senior Army member in situ would automatically be in charge of the Fort. The prime objective of a fort was to facilitate the clandestine movement of Pseudo operators, provision of hospital facilities for friend and foe alike, and a secure communications network. " Written communication from M.J. McGuinness to Chandré Gould, 4 April 2001.
- 63 M.J. McGuinness written communication to Chandré Gould, 21 June 2002.
- 64 Ibid.
- 65 McGuinness, op. cit. note 62, 4 April 2001.
- 66 McGuinness, op. cit. note 59, October 2000.
- 67 Ibid.
- 68 Meryl Nass, "Zimbabwe's Anthrax Epizootic", *Covert Action*, No. 43, Winter 1992/3.
- 69 David Martin, *The Use of Poison and Biological Weapons in the Rhodesian War*, Harare: The Southern African Research and Documentation Centre, 1993.
- 70 Peta Thornycroft telephonic discussion with Peter Allum, September 2000.
- 71 Peta Thornycroft telephonic discussion with Lt.-Col. Reid Daly, September 2000.

- ⁷² Peta Thornycroft telephonic discussion with Peter Walls, September 2000.
- ⁷³ Stiff, *op. cit.* note 55, pp. 308-310.
- ⁷⁴ Martin, *op. cit.* note 69, 1993.
- ⁷⁵ "Issue of Equipment: 8.8.77-17.8.77". Report from the Officer in Charge of Operations, Special Branch Headquarters to the Officer Commanding, Special Branch Headquarters and the Director-General Central Intelligence Organisation, 25 August 1977.
- ⁷⁶ Lt.-Col. D.J.C. Wiseman, *The Second World War 1939-1949 Army. Special Weapons and Types of Warfare, Vol I-Gas warfare*, London: The War Office, 1951, p. 46.
- ⁷⁷ J.P. De Villiers, Handleiding vir die SAW Bevelstelsel Vol I, Nasionale Veiligheid en Totale Oorlog, Hoofstuk 12, Aanwending van Chemiese en Biologiese Aspekte van Totale Oorlog [Guidelines for the SADF Command Structure Vol 1, National Security and Total War, Chapter 12, Application of Chemical and Biological aspects of Total War], undated document from the Mechem archives. (This document was probably written in the 1970s.)
- ⁷⁸ Lt.-Col. D.J.C. Wiseman, *op. cit.* note 76, p. 47.
- ⁷⁹ Chandré Gould interview with Dr Vernon Joynt, Pretoria, 6 October 1999.
- ⁸⁰ J.P. De Villiers, "Strategic Implications of Chemical Warfare", 17 May 1977, p. 1.
- ⁸¹ De Villiers, *op. cit.* note 77.
- ⁸² "[D]ie behandeling van 'n terroristebasis met 'n nie-nawerkende nie-dodende middel net voor 'n veiligheidsmag aanval kan beide die terroriste se verdediging en hulle kanse om te ontsnap baie nadelig beïnvloed." Quoted from J.P. De Villiers, "Chemiese Oorlogvoeringsmiddels van belang, of van moontlike belang, vir die RSA" [Chemical Warfare agents of importance, or of possible importance, for the RSA], 12 July 1977, p. 3.
- ⁸³ J.P. De Villiers, Col. G.E. McLouglin, V.P. Joynt, Cmdt. C.C. Van Der Westhuizen, "Chemical and Biological Warfare in a South African Context in the Seventies", 12 February 1971, p. 8.
- ⁸⁴ J.P. De Villiers, "Current Anti-Riot Chemicals, September 1976". Document from the Mechem archives.
- ⁸⁵ Hearing of the Subcommittee on Africa of the Committee on Foreign Affairs-United States House of Representatives On the Implementation of the United States Arms Embargo (against Portugal and South Africa, and related issues), 22 March and 6 April 1973.

- ⁸⁶ Joynt, op. cit. note 79, 6 October 1999.
- ⁸⁷ Ibid.
- ⁸⁸ Chandré Gould interview with Gen. (ret.) R. Badenhorst, Pretoria, 16 January 2001.
- ⁸⁹ De Villiers, op. cit. note 77.
- ⁹⁰ De Villiers, McLouglin, Joynt, Van Der Westhuizen, op. cit. note 83.
- ⁹¹ Stiff, op. cit. note 49, p. 204.
- ⁹² Gen. M. Malan was Chief of the Defence Force from September 1976 to October 1980, when he became Minister of Defence.
- ⁹³ Evidence of Dr Jan Coetzee in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 6 November 2000. All daily reports of the trial as prepared by Marlène Burger are unpublished documents which form part of the CCR archives. Weekly reports on the trial which summarised the daily reports are available on the CCR website: www.ccrweb.uct.ac.za.
- ⁹⁴ Ibid.
- ⁹⁵ Evidence of Sybrand Van der Spuy in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in daily trial report prepared for the CCR's CBW research project, 6 November 2000.
- ⁹⁶ Chandré Gould and Jerome Chaskalson, interview with Jan Lourens, Cape Town, 23 January 1998.
- ⁹⁷ Verkleinde Verdedigingsbevelraad, Notule van Vergadering gehou om 07h30 op 25 Oktober 1990 te Samik (HS PLAN/DP/302/6/COAST and HS PLAN/DP/302/6/KEYBOARD) [Reduced Defence Council, Minutes of Meeting held at 07h30 on 25 October 1990 at Samik], 31 November 1990, p. 2. Document made available to the public at the TRC hearing into chemical and biological warfare, June 1998.
- ⁹⁸ Ibid.
- ⁹⁹ Ibid.
- ¹⁰⁰ Ibid.
- ¹⁰¹ Ibid. Appendix A, p. 2.
- ¹⁰² Ibid. Appendix A, p. 2.
- ¹⁰³ Stockholm International Peace Research Institute, *The problem of chemical and biological warfare. Volume I: The Rise of CB Weapons*, Stockholm: Almqvist & Wiksell, 1971. Stockholm International Peace Research Institute, *The Problem Of Chemical And Biological Warfare. Volume II: CB Weapons Today*, Stockholm: Almqvist & Wiksell, 1973.
- ¹⁰⁴ Luther J. Carter, "Approval Sought for Nerve Gas Pilot Plant", *Science*, Vol. 206, 7 December 1979, p. 1164.

- ¹⁰⁵ Lois R. Ember, "Army seeks firm to make nerve gas chemicals", *C&EN*, Washington, 23 August 1982, p. 32.
- ¹⁰⁶ Verkleinde Vededigingsbevelraad, op. cit. note 97, Appendix A, p. 7.
- ¹⁰⁷ Wouter Basson and Gen. D.P. Knobel, Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te George op 7 Jan 1993 (GG/UG/302/6/J1282/5) [Presentation to the Minister of Defence about the course and current status of Projects Coast and Jota at George on 7 January 1993], 7 January 1993, p. 1. Document made available to the public at the TRC hearing into chemical and biological warfare, June 1998.
- ¹⁰⁸ Gen. Knobel was testifying in the trial of Dr Wouter Basson.
- ¹⁰⁹ Testimony of Gen. D.P. Knobel in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in daily trial report prepared for the CCR's CBW research project, 22 November 1999.
- ¹¹⁰ Chandré Gould, telephone conversation with Helmoed Heitman, July 2000. Heitman is the South African correspondent for Jane's Defence Weekly and spent 26 years as a serving SADF soldier and ranking officer.
- ¹¹¹ Wouter Basson, Voordrag aan Verkleinde VBR, Voorgestelde filosofie vir Chemiese oorlogvoering vir die SA Weermag-Beginsels en terugvoer oor huidige stand in the SA Weermag (GG/UG/306/3) [Presentation to the Reduced Defence Command Council, Proposed philosophy for Chemical warfare for the SA Defence Force-Principles and feedback with regard to the current position in the SA Defence Force], 25 October 1990. SADF document made available to the TRC hearing into chemical and biological warfare in June 1998. This document was released to the public by the TRC.
- ¹¹² Wouter Basson, Projek Coast: Voorligting aan Staatspresident (GG/UG/302/6/C123/BK) [Project Coast: Briefing of the State President], 26 March 1990. This SADF document was made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ¹¹³ Verkleinde Verdedigingsbevelraad, op. cit. note 3, Appendix A.
- ¹¹⁴ Brian Davey, "Degradation of Human Performance with use of chemical protective clothing: Overview of Research Programme". Paper presented at the Fourth International Symposium on Protection against Chemical Warfare Agents. Stockholm, Sweden, 8-12 June 1992.

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- ¹¹⁵ Testimony of Dr Brian Davey in *The State vs Wouter Basson*, High Court of South Africa, Transvaal Division as reported by Marlène Burger in the trial reports prepared for the CCR's CBW research project, 4 September 2000.
- ¹¹⁶ Steenkamp, *op. cit.* note 20, 7 December 2000.
- ¹¹⁷ Affidavit of Daniel Du Toit, entered into the court record on 13 November 2000 in *The State vs Wouter Basson*, High Court of South Africa, Transvaal Division.
- ¹¹⁸ Chandré Gould electronic communication with Rudolph Louw (former Project Officer of Project Keyboard), 21 August 2001.
- ¹¹⁹ *Ibid.*
- ¹²⁰ Chandré Gould telephonic discussion with Gen. Jan Breytenbach, 21 August 2001.
- ¹²¹ Louw *op. cit.* note 118, 21 August 2001.
- ¹²² *Ibid.*
- ¹²³ *Ibid.*
- ¹²⁴ Basson and Knobel, *op. cit.* note 107, p. 1.
- ¹²⁵ Gen. D.P. Knobel, *Ondersoek kragtens Artikel 5 van die Wet op die Ondersoek van Erenstige Ekonomiese Misdrywe, 117 van 1991: Krygkor, met spesifieke verwysing na Brigadier W. Basson* [Investigation in terms of Article 5 of the Act on the Investigation of Serious Economic Offences, 117 of 1991: Armscor, with Special Reference to Brig. W. Basson], 11 January 1992. Document handed to the TRC and public during the TRC hearings into chemical and biological warfare, Cape Town, June 1998.
- ¹²⁶ *Ibid.*
- ¹²⁷ Testimony of Gen. D.P. Knobel at the TRC hearing into chemical and biological warfare, Cape Town as reflected in the transcript of the hearing, 18 July 1998.
- ¹²⁸ *Ibid.*
- ¹²⁹ Basson and Knobel, *op. cit.* note 107, p. 2.
- ¹³⁰ *Ibid.*
- ¹³¹ *Ibid.*
- ¹³² *Ibid.*
- ¹³³ W. Basson and D.P. Knobel, *Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te Pretoria op 10/8/93* [Presentation to the Minister of Defence about the course and current status of Projects Coast and Jota in Pretoria on 10/8/93], 10 August 1993, p. 2. SADF document made

- available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ¹³⁴ Verkleinde Vededigingsbevelraad , op. cit. note 97, Appendix A, p. 3.
- ¹³⁵ Chandré Gould electronic communication with Caitroina McLeish, Harvard Sussex Programme on CBW Armament and Arms Limitation, 16 January 2001. Chandré Gould electronic communication with Julian Perry Robinson, 18 August 2001.
- ¹³⁶ Chandré Gould discussion with Daan Goosen, Pretoria, 18 January 2001.
- ¹³⁷ Testimony of Niel Kirstein in *The State vs Wouter Basson*, High Court of South Africa, Transvaal Division, as reported by Marlène Burger in the trial report prepared for the CCR's CBW research project, 9-10 November 1999.
- ¹³⁸ Testimony of Wouter Basson in *The State vs Wouter Basson*, High Court of South Africa, Transvaal Division, as reported by Marlène Burger in the trial report prepared for the CCR's CBW research project, 23 July 2001.
- ¹³⁹ Testimony of Gen. Lothar Neethling, op. cit. note 34, 10 June 1998.
- ¹⁴⁰ Testimony of Jan Van Jaarsvelt in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in the daily trial reports prepared for the CCR's CBW research project, 5 June 2000. Statement made by Adv. Jaap Cilliers in the *State vs Wouter Basson*, during the cross examination of Gen. D.P. Knobel, op. cit. note 109, 29 November 1999.
- ¹⁴¹ Testimony of Gen. D.P. Knobel, op. cit. note 109, 29 November 1999.
- ¹⁴² Testimony of Charles Van Remoortere in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in the daily trial reports prepared for the CCR's CBW research project, 11 September 2000.
- ¹⁴³ Ibid.
- ¹⁴⁴ Ibid.
- ¹⁴⁵ Testimony of Wouter Basson, op. cit. note 138, 23 July 2001.
- ¹⁴⁶ C.P. Van der Westhuizen, *Projek Jota*, SADF document number TI/202/1/10/1, 25 March 1993.
- ¹⁴⁷ Testimony of Dr. Johan Koekemoer in the Truth and Reconciliation Commission's hearing into chemical and biological warfare, Cape Town, 9 June 1998.
- ¹⁴⁸ Correspondence from Laura Pollecott to Chandré Gould, June 2000.
- ¹⁴⁹ Badenhorst, op. cit., 16 January 2001.

- ¹⁵⁰ Judgement in the case of *The State vs Wouter Basson*, South African High Court, Transvaal Division, paragraph 2130, 11 April 2002.
- ¹⁵¹ Indictment, Vol. II, in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 1999, p. 240. Testimony of Andre Immelman in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger for the CCR's CBW research project, 29 May 2000.
- ¹⁵² Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2007.
- ¹⁵³ Until 1982 this was Gen. Fritz Loots whereafter Gen. A.J. (Kat) Liebenberg assumed this position.
- ¹⁵⁴ Gen. Fritz Loots, *Verdere Implementering van Barnacle* [Further implementation of Barnacle], Exhibit 31B in *The State vs Wouter Basson*, South African High Court, Transvaal Division, document dated 9 January 1981.
- ¹⁵⁵ According to an order of the court Mr K. cannot be named.
- ¹⁵⁶ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 1978.
- ¹⁵⁷ This largely entailed deep-penetration reconnaissance-dropping a two-man team 600 kilometres behind enemy lines and leaving them there for up to seven weeks with no logistical support or contact with their own forces. Their task would be to identify terrorist infiltration routes and training camps and ultimately direct air strikes on such camps.
- ¹⁵⁸ S. Serfontein, *Organisasie-Ondersoek na Projek Barnacle*, 12 December 1980. (Exhibit 31(C) in *The State vs Wouter Basson*.)
- ¹⁵⁹ F. Loots, *Verdere Implimentering van Barnacle*, 9 January 1981. (Exhibit 31(B) in *The State vs Wouter Basson*.)
- ¹⁶⁰ Testimony of Mr K. in *The State vs Wouter Basson*, 2 May 2000, as reported in the daily trial report prepared by Marlène Burger.
- ¹⁶¹ *Ibid.*
- ¹⁶² *Ibid.*
- ¹⁶³ *Ibid.*
- ¹⁶⁴ "Turned" in this context means to work for their captors against their fellow guerrillas.
- ¹⁶⁵ Testimony of Johan Theron in *The State vs Wouter Basson* as reported by Marlène Burger in the daily trial report prepared for the CBW research project of the CCR, 3-8 May 2000. Testimony of Martin van der Linde in *The State vs Wouter Basson* as reported by Marlène Burger in the daily trial report prepared for the CBW research project of the CCR, 12 May 2000. Testimony of Mr K. in *The State vs Wouter*

- Basson as reported by Marlène Burger in the daily trial report prepared for the CBW research project of the CCR, 2 May 2000.
- ¹⁶⁶ Testimony of Mr K. in *The State vs Wouter Basson* as reported by Marlène Burger in the daily trial report prepared for the CBW research project of the CCR, 2 May 2000.
- ¹⁶⁷ Testimony of Johan Theron, *op. cit.* note 165, 3 May 2000.
- ¹⁶⁸ *Ibid.*
- ¹⁶⁹ *Ibid.*
- ¹⁷⁰ *Ibid.*
- ¹⁷¹ *Ibid.*
- ¹⁷² Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraphs 1982 and 1983.
- ¹⁷³ *Akte van Beskuldiging, Vol. II*, in *Die State vs Wouter Basson, Hooggeregshof, Transvaalse Afdeling [Indictment, Vol II, in The State vs Wouter Basson, High Court, Transvaal Division]*, 1999, p. 208.
- ¹⁷⁴ *Ibid.*, pp. 207-210.
- ¹⁷⁵ *Ibid.*, p. 208.
- ¹⁷⁶ Correspondence from Gen. D.P. Knobel to J. Swanepoel, *Ondersoek kragtens Artikel 5 van die Wet op die Ondersoek van Erenstige Ekonomiese Misdrywe, 117 van 1991: Krygkor, met spesifieke verwysing na Brigadier W. Basson [Investigation in terms of Article 5 of the Act on the Investigation of Serious Economic Offences, 117 of 1991: Armscor, with Special Reference to Brig. W. Basson]*, 11 January 1992. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ¹⁷⁷ *Akte van Beskuldiging, Vol II*, in *Die State vs Wouter Basson, Hooggeregshof, Transvaalse Afdeling [Indictment, Vol II, in The State vs Wouter Basson, High Court, Transvaal Division]*, 1999, p. 201. (Charge 63).
- ¹⁷⁸ Testimony of Jan Anton Nieuwoudt in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in the daily trial report prepared for the CCR's project on CBW, 16 May 2000.
- ¹⁷⁹ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2131, point 19.
- ¹⁸⁰ Testimony of D.P. Knobel, *op. cit.* note 109, 15 November 1999.
- ¹⁸¹ According to Jan Lourens, a close one-time associate of Basson, the name was an abbreviation of the Latin term *In flagrante delicto*, translated as "caught in the act".

- ¹⁸² Chandré Gould interview with Geoff Candy, Johannesburg, 24 May 2000.
- ¹⁸³ According to Dr Willie Basson, the Rector of the University had been approached by the Surgeon-General to request permission for Basson to do this work. Chandré Gould, personal communication with Dr Willie Basson, 2 April 1991. Chandré Gould and Peter Folb, "The Role of Professionals in the South African Chemical and Biological Warfare Programme", *Minerva*, No. 40, Netherlands, 2002, pp. 77-91.
- ¹⁸⁴ Infladel was established before the internet and had access to computerized international search vehicles including a link to United States databases. Infladel was one of only two facilities in South Africa which had this capability at the time. The person responsible for this was Antoinette Lourens.
- ¹⁸⁵ Jan Lourens, telephonic discussion with Chandré Gould, 21 May 2000.
- ¹⁸⁶ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 48 (reference to the testimony of Gen. Knobel regarding the structure of Project Coast and its front companies).
- ¹⁸⁷ Testimony of D.P. Knobel, *op. cit.* note 109, 15 November 1999.
- ¹⁸⁸ *Ibid.*
- ¹⁸⁹ Chandré Gould interview with Dr. Hennie Jordaan, Pretoria, 18 January 2001.
- ¹⁹⁰ *Ibid.*
- ¹⁹¹ Lourens opted for a thesis-based degree and used the CSIR labs for his research. This was completely separate from any work that he was doing for Special Forces and the CSIR was not aware that he was also employed by Special Forces.
- ¹⁹² Testimony of Jan Lourens in the transcript of the TRC hearing into chemical and biological warfare, Cape Town, 8 June 1998.
- ¹⁹³ Testimony of D.P. Knobel, *op. cit.* note 109, 15 November 1999.
- ¹⁹⁴ Candy, *op. cit.* note 182, 24 May 2000.
- ¹⁹⁵ Testimony of Gerald Cadwell in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in the trial report prepared for the CCR's CBW research project, 8 November 2000.
- ¹⁹⁶ *Ibid.*
- ¹⁹⁷ *Ibid.*
- ¹⁹⁸ *Ibid.*
- ¹⁹⁹ Personal electronic communication between H. Jordaan and C. Gould on 12 March 2001.

- 200 Ibid.
- 201 Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2131, point 46.
- 202 Delta G Scientific (Pty) Ltd Kwartaalverslag vir die Tweede Kwartaal 1987 (1/6/1987-31/8/87), a Delta G Scientific document found in the Basson's trunk at the time of his arrest in 1997 and made available to the public during the TRC Hearings into Chemical and Biological Warfare in June 1998, p. 17.
- 203 Jordaan, op. cit. note 189, 18 January 2001.
- 204 Chandré Gould telephonic discussion with Corrie Botha, 28 June 2000.
- 205 Jordaan, op. cit. note 189, 18 January 2001.
- 206 MDMA is the technical term for the rave drug commonly known as Ecstasy.
- 207 Delta G Scientific, Production: Mosrefcat, 31 August 1988. The author of this document is unknown. The document was made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998. A letter dated 9 November 1992 from Gen. D.P. Knobel (Surgeon-General) headed: "Bevestiging van Ontvangs van Produkte Gelewer: Projek Coast/Jota" (HSF/UG/302/6/C119) [Confirmation of Receipt of Products Delivered: Project Coast/Jota]. This document was handed to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 208 Jordaan, op. cit. note 189, 18 January 2001.
- 209 Researchers at the facility were required to submit research proposals to the managers; projects that were authorised were registered internally.
- 210 Freek Swart, Onvrugbare swart vroue Tukkie-professor praat oor WVK se valse propaganda [Infertile black women-Pretoria University professor talks about TRC false propaganda], 9 August 1998.
- 211 Testimony of Dr Daan Goosen in the transcript of the TRC hearings into Chemical and Biological warfare, Cape Town, 10 June 1998.
- 212 Jordaan, op. cit. note 189, 18 January 2001. Chandré Gould and Peter Folb interview with Lucia Steenkamp, Johannesburg, 27 June 2000.
- 213 Testimony Schalk Van Rensburg, in the transcript of the TRC Hearing on Chemical and Biological Warfare, Cape Town, 9 June 1998.
- 214 Jordaan, op. cit. note 189, 18 January 2001. Candy, op. cit. note 182, 24 May 2000.

- ²¹⁵ United States of America vs Jerry Brandt, United States District Court Eastern District of New York, Judgement including sentence under the Sentencing Reform Act, Case No. CR 90-0919, Conspiracy to violate Export Administration Act, 2 June 1992.
- ²¹⁶ Testimony of Grant Wentzel in The State vs Wouter Basson, South African High Court, Transvaal Division, as reported by Marlène Burger in the trial report prepared for the CCR's CBW research project, 27 October 1999.
- ²¹⁷ H.J. Bruwer, Projek Coast. Forensiese Ondersoek. Aanvullende Verslag van H.J. Bruwer [Project Coast. Forensic Investigation. Supplementary Report of H.J. Bruwer]. Presented in The State vs Wouter Basson by the State, 10 August 2000, p. 6.
- ²¹⁸ Testimony of Barry Pithey in The State vs Wouter Basson, South African High Court, Transvaal Division, 8 November 2000, as reported in the daily trial report prepared by Marlène Burger.
- ²¹⁹ Jordaan, op. cit. note 189, 18 January 2001.
- ²²⁰ Testimony of Dr Hennie Jordaan in The State vs Wouter Basson, 15 August 2000, as reported in the daily trial report prepared by Marlène Burger.
- ²²¹ Medchem Consolidated Investments was a holding company directed by Philip Mijburgh who was also MD of Delta G Scientific. Medchem became the holding company of Delta G during privatization.
- ²²² Steenkamp, op. cit. note 212, 27 June 2000.
- ²²³ Jordaan, op. cit. note 189, 18 January 2001.
- ²²⁴ Wouter Basson and A.J. Liebenberg, Voorstelle mbt die Beeindiging van Kontraktuele verbintenis met die Medchem Groep miv 1 September 1991-Implikasies en opsies: Projek Coast (HSF/UG/302/6/C123) [Proposal with regard to the termination of contractual obligations with the Medchem Group with effect from 1 September 1991-Implications and Options: Project Coast], 19 August 1991. SADF document made available to the public during the TRC hearings into chemical and biological warfare, Cape Town, June/July 1998.
- ²²⁵ Alternatiewe tot die verandering van die SAW se belang by CO navorsing & ontwikkeling mbt die Medchem groep van maatskappye [Alternatives to the change in the SADF's interests in Chemical Warfare research and development with regard to the Medchem group of companies], 12 August 1988. SADF document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.

- ²²⁶ Hennie Bruwer, Projek Coast Forensiese Ondersoek [Project Coast Forensic Audit], submitted in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 10 November 1999, p. 30.
- ²²⁷ *Ibid.*, p. 6.
- ²²⁸ Testimony of Dr Daan Goosen in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 22 May 2000, as reported in the daily trial report prepared by Marlène Burger.
- ²²⁹ *Ibid.*
- ²³⁰ *Ibid.*
- ²³¹ Testimony of Dr Daan Goosen, *op. cit.* note 228, 22 May 2000.
- ²³² *Ibid.*
- ²³³ *Ibid.*
- ²³⁴ *Die Staat teen Wouter Basson, Akte van Beskuldiging, Vol. II [Indictment, Vol. II, in The State vs Wouter Basson]*, in the Pretoria High Court, 1999.
- ²³⁵ Reference to testimony of Dr Wouter Basson as reflected in the Judgement in *The State vs Wouter Basson*, 11 April 2002, paragraph 1429.
- ²³⁶ Testimony of Wouter Basson, *op. cit.* note 138, 3 September 2001. Judgement in *The State vs Wouter Basson*, 11 April 2002, paragraphs 966-969.
- ²³⁷ Lourens, *op. cit.* note 96, 22-23 January 1998.
- ²³⁸ Testimony of Dr Daan Goosen, *op. cit.* note 228, 22 May 2000.
- ²³⁹ *Ibid.*
- ²⁴⁰ Testimony of Dr Wouter Basson, *op. cit.* note 138, 3 September 2001.
- ²⁴¹ *Ibid.*
- ²⁴² *Ibid.*
- ²⁴³ Personal communication between Chandré Gould and Dr Schalk Van Rensburg on 23 May 2000.
- ²⁴⁴ Testimony of André Immelman, *op. cit.* note 151, 29 May 2000.
- ²⁴⁵ Testimony of Dr Daan Goosen, *op. cit.* note 228, 22 May 2000.
- ²⁴⁶ *Ibid.*
- ²⁴⁷ *Ibid.*
- ²⁴⁸ *Produkligtingstuk oor Botulinum Toksien*, [Product information about Botulinum toxin], an undated report from RRL found in Basson's trunks at the time of his arrest in 1997 and used by the TRC in its public hearing in 1998.
- ²⁴⁹ Ionophore antibiotics are widely used in the poultry industry as growth promoters. Their mode of action links with their ability to transport cations across biological membranes. They have antiparasitic

- properties and are commonly used as growth promoters. Ionophores are potentially toxic for susceptible species.
- 250 Verslag aangaande die ionofoor antibiotika en hulle gebruik [Report regarding the ionophore antibiotic and their (sic) use], a report to the RRL shareholders in August 1985; document used and made public in the TRC hearings in 1998.
- 251 Klaus Psotta and Erica Joubert, Roodeplaat Navorsingslaboratorium Projekverslag: Isolasië van Monensin [Roodeplaat Research Laboratories Project Report: Isolation of Monensin], 13 May 1986. Verslag aangaande die ionofoor antibiotika en hulle gebruik [Report about the ionophore antibiotics and their use], 1985. These are RRL documents which were made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 252 J. Davies, Fenielsilitrane in Bobbejane [Phenylsilitrane in Baboons], Roodeplaat Research Laboratory Research Report, 26 February 1987. Exhibit 54D in *The State vs Wouter Basson*.
- 253 A. Immelman, and J. Davies, Roodeplaat Research Laboratories research report: Evaluering van die absorpsie van Salitrane deur middel van verskeie toedieningsroetes [Evaluation of the absorption of Salitrane through various application routes], 5 January 1988. Exhibit 54D in *The State vs Wouter Basson*, Pretoria High Court, 2000.
- 254 James Davies, RRL research report. Fenielsilitrane in bobbejane [Phenylsilitrane in baboons], 26 February 1987. Exhibit 54D in *The state vs Wouter Basson*, High Court of South Africa, Transvaal Division, 2000.
- 255 Testimony of Dr Daan Goosen, op. cit. note 228, 22 May 2000.
- 256 Testimony of Dr Mike Odendaal in transcript of the TRC hearing into Chemical and Biological Warfare, Cape Town 9 June 1998.
- 257 Testimony of Dr Daan Goosen, op. cit. note 228, 22 May 2000.
- 258 Ibid.
- 259 Ibid.
- 260 Ibid.
- 261 Cross-examination of Dr Daan Goosen, as reflected in the Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 966.
- 262 Chandré Gould and Jerome Chaskalson, interview with Daan Goosen, Pretoria, 17 March 1998.

- ²⁶³ Testimony of Dr Schalk van Rensburg, in the transcript of the TRC hearing into chemical and biological warfare, Cape Town, 9 June 1998.
- ²⁶⁴ Chandré Gould and Peta Thornycroft interview with Daan Goosen, Adriaan Botha, and Mike Odendaal, Pretoria, 1 December 1999.
- ²⁶⁵ Testimony of André Immelman, *op. cit.* note 151, 29 May 2000.
- ²⁶⁶ Testimony of Dr Daan Goosen, *op. cit.* note 228, 22 May 2000.
- ²⁶⁷ Until the end of 1987.
- ²⁶⁸ Schalk Van Rensburg, in the transcript of the TRC hearing into chemical and biological warfare, Cape Town, 9 June 1998.
- ²⁶⁹ *Ibid.*
- ²⁷⁰ Testimony of André Immelman *op. cit.* note 151, 29 May 2000.
- ²⁷¹ *Ibid.*
- ²⁷² Chandré Gould interview with Dr Mike Odendaal, Pretoria, 1 September 2001.
- ²⁷³ Testimony of André Immelman *op. cit.* note 151, 29 May 2000.
- ²⁷⁴ *Ibid.*
- ²⁷⁵ W.A. Augustyn, Biochemie Projekte [Biochemistry projects], July 1991. An RRL document used by the TRC in its public hearing into chemical and biological warfare in 1998.
- ²⁷⁶ Klaus Psotta, Roodeplaat Navorsingslaboratoriums: Aansoek om 'n projek te registreer, Tabak as 'n toedieningsroete [Roodeplaat Research Laboratories: Application to register a project, Tobacco as a route of administration], 23 July 1986 RRL research document, Exhibit 63U4 in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 2000. André Immelman, Roodeplaat Navorsingslaboratoriums Werksopdrag: Opmaak van 50 mg PXN, [Roodeplaat Research Laboratories, Work Instruction: Make up of 50 mg PXN], 27 January 1986, RRL research document, Exhibit 63U5 in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 2000.
- ²⁷⁷ The authors approached Dr Psotta with a request for an interview but were turned down. The information herein is from his testimony in *The State vs Wouter Basson* on 8 November 2000 as reported by Marlène Burger.
- ²⁷⁸ Testimony of Dr K. Psotta in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 8 November 2000, as reported in the daily trial report prepared by Marlène Burger.
- ²⁷⁹ Roodeplaat Research Laboratories research protocols: Project 86/H/4/30: synthesis of paraoxon, 7 February 1986. RRL work order:

- formulation of paraoxon in whisky and gin, 27 January 1986. RRL Project registration form and project report: Ondersoek na die geskiktheid van KMR as analitiese tegnieke om P.O. in tabak te bepaal. [Investigation into the appropriateness of nuclear magnetic resonance as an analytic technique to determine paraoxon in tobacco.] Exhibits 63U5 and 63U4 in *The State vs Wouter Basson*, Pretoria High Court.
- ²⁸⁰ J. Davies and A. Immelman, Bepaling van die toksiteit van P.O. en nikotien as 'n kombinasie in die hond. [Determination of the toxicity of P.O. and nicotine as a combination in the dog.] Roodeplaat Research Laboratories Research Protocol. 20 July 1986. Document made available during the TRC hearings.
- ²⁸¹ Goosen, op. cit. note 136, 18 January 2001.
- ²⁸² Testimony of Klaus Psotta, op. cit., 8 November 2000.
- ²⁸³ Cross-examination of Dr Klaus Psotta, as reflected in the Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 1106 and 1107.
- ²⁸⁴ Testimony of Dr. André Immelman, op. cit. note 151, 29 May 2000. The State Security Council was a permanent sub-committee of the Cabinet and the only committee whose membership and functions were enacted in law. The SSC was chaired by the President (from 1979-1989 this was P.W. Botha) and served by a permanent secretariat. James Selfe, "South Africa's National Security Management System", in Laurie Nathan and Jacklyn Cock (eds), *War and Society: The Militarisation of South Africa*, David Philips: Cape Town, 1989, p. 151. Other members of the SSC included the Ministers of Defence, Law and Order, Justice and Foreign Affairs, the civil service heads of these departments and the National Intelligence Service. According to Selfe the SSC met approximately once every two weeks to consider suggestions "as to how the 'revolutionary onslaught' can most effectively be counteracted by coordinated state activity. The recommendations of the SSC are then submitted for approval to the full Cabinet, which usually meets the next day.", p. 151.
- ²⁸⁵ Testimony of Dr André Immelman op. cit. note 151, 29 May 2000.
- ²⁸⁶ Testimony of Dr. Schalk Van Rensburg in the transcript of the Truth and Reconciliation Commission hearing into chemical and biological warfare, Cape Town, 10 June 1998.
- ²⁸⁷ Candy, op. cit. note 182, 24 May 2000.
- ²⁸⁸ Brodifacoum is classified as a superwarfarin. It prevents the clotting of blood and is used in rat poison. It is an off-white powder, highly poisonous by ingestion. It blocks the blood clotting cascade causing

bleeding for weeks to months. Bleeding starts 36-48 hours after ingestion. Death is caused by blood loss and brain haemorrhage.

289 Phaal said that he recalled the operation taking place between 1983 and 1986, although the indictment places it as 1985.

290 Testimony of Danie Phaal in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 8-9 May 2000, as reported in the daily trial report prepared by Marlène Burger.

291 *Ibid.*

292 *Ibid.*

293 In terms of Section 204 of the South African Criminal Procedures Act, witnesses who testify against an accused and in so doing incriminate themselves in criminal acts can be indemnified against prosecution for those acts if they are found to have testified honestly and accurately.

294 Correspondence from Gen. D.P. Knobel to J. Swanepoel, *op. cit.* note 176, 11 January 1992.

295 Knobel, *op. cit.* note 127, 7 July 1998.

296 Bothma put the date at 1983 whereas Johan Theron could recall that the incident took place in December 1984—he remembered that he and Bothma had slipped away to vote in the referendum that took place at that time. Testimony of Dr Kobus Bothma in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in the trial report prepared for the CCR's CBW research project, 12-13 June 2000.

297 *Ibid.*

298 Dormicum is the trade name for the well known benzodiazepine midazolam. More than 20 of these agents are on the market of which Valium (diazepam) and Ativan (lorazepam) are well known representatives. The benzodiazepines are primarily indicated for the treatment of anxiety states and as hypnotics (sleeping pills). They are relatively safe in overdose, but intravenous administration may cause respiratory arrest.

Midazolam is a short acting benzodiazepine. It is effective for the induction of general anaesthesia and as an agent to induce sleep before minor, non-painful and short surgical procedures. For the above indications it is given intravenously. Midazolam is also well absorbed by mouth and intramuscularly. It is also used orally as a sleeping tablet.

299 Testimony of Dr Kobus Bothma, *op. cit.* note 296, 12-13 June 2000.

300 *Ibid.* and testimony of Johan Theron, *op. cit.* note 165, 3-8 May 2000.

301 Testimony of Dr Kobus Bothma, *op. cit.* note 296, 12 June 2000 and the testimony of Johan Theron, *op. cit.* note 165, 3 May 2000.

- 302 Judgement in *The State vs Wouter Basson*, South African High Court,
Transvaal Division, 11 April 2002, paragraphs 1990-1993.
- 303 Testimony of Andre Immelman, *op. cit.* note 151, 29 May 2000.
- 304 Testimony of Wouter Basson, *op. cit.* note 138, 30 July 2001.
- 305 *Ibid.*, 5 September 2001.
- 306 Testimony of Dr Gerbus Muller in *The State vs Wouter Basson*, South
African high Court, Transvaal Division, 8 June 2000, as reported in the
daily trial report prepared by Marlène Burger.
- 307 Natrium asied [Sodium azide]. An RRL report which was made
available to the public during the TRC hearing into chemical and
biological warfare in 1998. This report is undated and no author is
identified.
- 308 James Davies and André Immelman, Projekverslag (Nr. 1),
Projeknommer 86/H/010/50; Doel: Bepaling van toksisiteit van
Brodifakum in die blou-aap [Project Report (No. 1), Project number
86/H/010/50; Aim: Determination of toxicity of Brodifacum in the
blue ape] An RRL document which was found in the trunks discovered
at the time of Basson's arrest and made available to the public during
the TRC hearing into chemical and biological warfare in 1998. The
document is dated 23 June 1986.
- 309 Andre Immelman, Verkope [Sales], document found in the trunks
seized after Basson's arrest and used in the TRC hearing into chemical
and biological warfare, Cape Town, June/July 1998. Immelman
admitted to having authored the document in an affidavit to the TRC
and in his testimony in *The State vs Wouter Basson*, the document is
dated 1989.
- 310 *Ibid.*
- 311 Indictment, Vol. II, *The State vs Wouter Basson*, *op. cit.*
- 312 Immelman, *op. cit.* note 309, 1989.
- 313 *Ibid.*
- 314 *Ibid.*
- 315 *Ibid.*
- 316 *Ibid.*
- 317 *Ibid.*
- 318 *Ibid.*
- 319 Testimony of Dr Kobus Bothma, *op. cit.* note 296, 12 June 1990.
- 320 *Ibid.* and the testimony of Johan Theron, *op. cit.* note 165, 3 May
2000.
- 321 A.W.M. Hay, "Surviving the impossible: the long march from
Srebrenica. An investigation of the possible use of chemical warfare

- agents”, *Medicine in Conflict*, 1998, Vol. 14, No. 2, pp. 120-155, <http://www.mitrotek.org>.
- 322 Personal electronic communication between C. Gould and A. Botha, 19 March 2001.
- 323 Ibid.
- 324 Ibid.
- 325 Ibid.
- 326 Ibid.
- 327 M.W. Odendaal, RRL research document, 6 February 1989.
- 328 Immelman, *op. cit.* note 309, 1989.
- 329 Summary of the evidence used in the State’s argument against the acquittal of Dr Basson on the human rights violation charges in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 24 May 2001, as reported in the daily trial report prepared by Marlène Burger.
- 330 Evidence of Abram Van Zyl in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 12 May 2000, as reported in the daily trial report prepared by Marlène Burger.
- 331 Evidence of Dr Mike Odendaal in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 24 May 2000, as reported in the daily trial report prepared by Marlène Burger.
- 332 Evidence of Pieter Botes in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 15 May 2000, as reported in the daily trial report prepared by Marlène Burger.
- 333 Chandré Gould and Peter Folb interview with Mike Odendaal, Pretoria, 30 October 2000.
- 334 Ibid.
- 335 Odendaal did not know who else was party to the decision.
- 336 Testimony of Wynand Swanepoel as reflected in the transcript of the TRC hearings into chemical and biological warfare, Cape Town, 11 June 1998.
- 337 Ibid.
- 338 Bruwer, *op. cit.* note 217, 10 August 2000.
- 339 South African submission to the BTWC, Confidence Building Measure F: Declaration of past activities, 15 December 1993.
- 340 South African submission to the BTWC, Confidence Building Measure F: Declaration of past activities, 1995.
- 341 Ibid.
- 342 Mangold and Goldberg, *op. cit.* note 55, p. 244.

- 343 Chandré Gould telephonic discussion with Dr. R Swanepoel, 25 January 2001.
- 344 Lourens, *op. cit.* note 96, 22-23 January 1998.
- 345 *Ibid.*
- 346 *Ibid.*
- 347 *Ibid.* Testimony of Jan Lourens in *The State vs Wouter Basson*, South African High Court Transvaal Division, 19 May 2000, as reported in the daily trial report prepared by Marlène Burger.
- 348 Lourens, *op. cit.* note 96, 22-23 January 1998.
- 349 *Ibid.*
- 350 *Ibid.*
- 351 *Ibid.*
- 352 *Ibid.*
- 353 *Ibid.*
- 354 *Ibid.*
- 355 Testimony of Jan Lourens, *op. cit.* note 347, 19 May 2000.
- 356 *Ibid.* Testimony of Trevor Floyd in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 9-12 May 2000, as reported in the daily trial report prepared by Marlène Burger.
- 357 Testimony of Wouter Basson, *op. cit.* note 138, 4 September 2001.
- 358 Testimony of Jan Lourens, *op. cit.* note 347, 19 May 2000.
- 359 *Ibid.*
- 360 Lourens, *op. cit.* note 96, 22-23 January 1998.
- 361 Bruwer, *op. cit.* note 217, 10 August 2000.
- 362 Testimony of Wouter Basson, *op. cit.* note 138, 23 July 2001.
- 363 Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraphs 2045 and 2131, pp. 33-39.
- 364 Lourens was M.D. of Hazmat for the last few months of his involvement in the programme in 1993.
- 365 Testimony of Bernard Zimmer in *The State vs Wouter Basson*, South African High court, Transvaal Division, 21-25 August 2000, as reported in the daily trial report prepared by Marlène Burger.
- 366 C.M. Erasmus, "Protechnik 1987-1997: The first ten years", company brochure of Protechnik, 1997.
- 367 Those documents are still available and housed at Armscor.
- 368 At the time of writing, 2002.
- 369 Lourens, *op. cit.* note 192, 8 June 1998.
- 370 Jerusalem Post, 18 June 98, p. 1, "Manbar convicted of selling poison gas to Iran", via Nexis; Reuter from Jerusalem, 0846 hrs ET 18 June 98,

- “Netanyahu wants Israeli to pay for arms sale”, via Infoseek; Uzi Mahnaimi (from Tel Aviv) and Yvonne Ridley, Sunday Times (London), 19 July 98, p. 18, “Briton reveals Israeli traitor's hidden heroics”.
- 371 Mideast Mirror, 16 July 98, “Manbar to appeal 16-year sentence for Iran dealings and judge's decision not to disqualify himself”, and 17 July 98, “The Manbar trial: there are still too many questions after the unambiguous verdict”, via Nexis.
- 372 Lourens op. cit. note 192, 8 June 1998.
- 373 Erasmus, op. cit. note 366.
- 374 Testimony of Hennie Bruwer in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 29 August 2000, as reported in the daily trial report prepared by Marlène Burger.
- 375 Erasmus, op. cit. note 366.
- 376 Chandré Gould interview with Brian Davey, Wilderness, notes approved on 7 February 2001.
- 377 Bruwer, op. cit. note 217, 10 August 2000.
- 378 Chandré Gould, interview with Brian Davey, Wilderness, South Africa, 13 September 2000.
- 379 Testimony of Roelf Louw in *The State vs Wouter Basson*, South African High Court Transvaal division, 23 February 2001, as reported in the daily trial report prepared by Marlène Burger.
- 380 Ibid.
- 381 R. Louw and A. Savides, Voorligting mbt Defensiewe CBO vir die SA Leër [Briefing with regard to Defensive Chemical and biological warfare for the SA Army], 24 March 1988, Exhibit RL1 in *The State vs Wouter Basson*, South African High Court, Transvaal Division.
- 382 Chandré Gould telephonic discussion with Brig. A. Savides, 26 February 2001.
- 383 Testimony of Roelf Louw, op. cit. 379, 23 February 2001.
- 384 List of items in stock at the South African Medical Services Depot, Exhibit RL3 in *The State vs Wouter Basson*, South African High Court, Transvaal Division. This document was presented as evidence on 23 February 2000.
- 385 Ibid.
- 386 R. Louw, Lys van CBO Uitrusting [List of CBW equipment], 3 October 1989, Exhibit RL2 in *The State vs Wouter Basson*, South African High Court, Transvaal Division.
- 387 R Louw, Impak van Beëindiging van Projek Academic [Impact of the ending of Project Academic], 10 November 1990, Exhibit RL4 in *The State vs Wouter Basson*, South African High Court, Transvaal Division.

- 388 Testimony of Charles van Remoortere, op. cit. note 142, 11 September 2000.
- 389 Ibid.
- 390 Chandré Gould, interview with Charles Van Remoortere, Pretoria, 18 March 1998.
- 391 Ibid.
- 392 Testimony of Charles van Remoortere, op. cit. note 142, 11 September 2000.
- 393 Testimony of Bernard Zimmer, op. cit. note 365, 25 August 2000.
- 394 Ibid.
- 395 Bruwer, op. cit. note 226, 10 November 1999, p. 21, Diagram 2.
- 396 Ibid.
- 397 Correspondence from Gen. D.P. Knobel to J. Swanepoel, op. cit. note 176, p. 8.
- 398 Ibid.
- 399 Ibid.
- 400 D.P. Knobel, P. Murray and M. Bekker, Projek Coast: Gekonsolideerde Begroting: April 1991-Maart 1992 [Project Coast: Consolidated budget: April 1991-March 1992], Exhibit J in *The State vs Wouter Basson*, South African High Court, Transvaal Division.
- 401 Ibid.
- 402 D.P. Knobel, Lys van uitstaande Navorsingskontrakte: Projek Jota [List of Research Contracts: Project Jota], Appendix A to D.P. Knobel and W. Basson, *Fondsebehoefte en Fondshantering: Projek Jota* [Funding requirements and Handling of Funds: Project Jota], 6 July 1992, Exhibit K2 in *The State vs Wouter Basson*, South African High Court, Transvaal Division.
- 403 Testimony of Hennie Bruwer, op. cit., 29 August 2000.
- 404 Ibid.
- 405 Testimony of Wynand Swanepoel and Philip Mijburgh as reflected in the transcript of the TRC hearing into chemical and biological warfare, Cape Town, 10 and 11 June 1998.
- 406 De Kock and Gordin, op. cit. note 46, p. 143.
- 407 TRC Final Report, Vol. 2, Chapter 3, 1998, <http://www.polity.org.za/govdocs/commissions/1998/trc/2chap3.htm>.
- 408 De Kock and Gordin, op. cit. note 46, p. 145.
- 409 Testimony of Corrie Ferreira in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 16 August 2000, as reported in the daily trial report prepared by Marlène Burger.
- 410 De Kock and Gordin, op. cit. note 46, p. 163.

- ⁴¹¹ Inquest into the death of Anton Lubowski in the High Court of Namibia, 3 June 1994. Final Report of the TRC, Vol II, Chapter 2, 1998.
- ⁴¹² Testimony of Pieter Botes, op. cit. note 332, 15 May 2000.
- ⁴¹³ Alastair Sparks, *Tomorrow is Another Country*, London: Arrow Books Limited, 1995, p. 12.
- ⁴¹⁴ Nelson Mandela, *Long Walk to Freedom: The Autobiography of Nelson Mandela*, Abacus, London, 1994, p. 62.
- ⁴¹⁵ De Kock and Gordin, op. cit. note 46, p. 185.
- ⁴¹⁶ Batchelor and Willett, op. cit. note 1, p. 55.
- ⁴¹⁷ Louise Flanagan and Chandré Gould, "De Kock linked to more killings", *Mail & Guardian*, 20 May 1994.
- ⁴¹⁸ Louise Flanagan and Chandré Gould, "What the Generals didn't tell Modise", *Mail & Guardian*, 24 June 1994.
- ⁴¹⁹ Sparks, op cit., pp. 129-130.
- ⁴²⁰ H. Ebrahim, *The Soul of A Nation. Constitution-making in South Africa*, Oxford: Oxford University Press, 1998, pp. 127-129.
- ⁴²¹ Steven Friedman and Doreen Atkinson (eds.), "The Small Miracle: South Africa's Negotiated Settlement", *South African Review*, No. 7, Randburg, South Africa, 1994.
- ⁴²² Chandré Gould interview with Gen. Pierre Steyn, Pretoria, 17 January 2001.
- ⁴²³ Staff Paper prepared for the Steyn Commission on alleged dangerous activities of SADF components. December 1992. Document made available to the TRC by Gen. D.P. Knobel during his testimony at the TRC hearings into chemical and biological warfare 12 June 1998. The document was made available to the public.
- ⁴²⁴ Batchelor and Willett, op. cit. note 1, p. 58.
- ⁴²⁵ Basson, op. cit. note 112.
- ⁴²⁶ Robinson, op. cit. note 135.
- ⁴²⁷ Basson, op. cit. note 112, 26 March 1990.
- ⁴²⁸ Basson and Knobel, op. cit. note 107.
- ⁴²⁹ Testimony of Schalk van Rensburg, op. cit. note 286, 9 June 1998.
- ⁴³⁰ Testimony of Mike Odendaal, op. cit. note 331, 24 May 2000.
- ⁴³¹ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2131, point 2, p. 33-39.
- ⁴³² Wouter Basson, *Projek Coast: Moontlikhede vir privatisering* [Project Coast: Possibilities for privatisation], 28 November 1989, Exhibit 23B in *The State vs Wouter Basson*, South African High Court, Transvaal Division.

- ⁴³³ Ben Steyn, Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te George op 7 Jan 1993 (GG/UG/302/6/J1282/5) [Briefing of the Minister of Defence about the chronology and current status of Projects Coast and Jota at George on 7 January 1993], p. 5, 7 January 1993. This document was made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁴³⁴ Basson, op. cit. note 432, 11 November 1989.
- ⁴³⁵ Chandré Gould interview of Gen. R. Badenhorst, Pretoria, 16 January 2001.
- ⁴³⁶ Testimony of Roelf Louw, op. cit. note 379, 23 February 2001.
- ⁴³⁷ Ibid.
- ⁴³⁸ Testimony of Floris Laubscher in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in the trial report prepared for the CCR's CBW research project, 7 June 2000.
- ⁴³⁹ Chandré Gould telephonic discussion with Gen. J. Geldenhuys, 3 January 2002.
- ⁴⁴⁰ Notule van die vergadering van die Beheerkomitee van Projek Jota wat gehou is op 9 Januarie 1995 by die Kantoor van HNW (G/UG/302/6/J1282) [Minutes of the meeting of the Co-ordinating Management Committee of Project Jota held on the 9 January 1995 in the office of the Chief of the National Defence Force], 9 January 1995.
- ⁴⁴¹ Wouter Basson, Voordrag aan verkleinde VBR: Voorgestelde filosofie vir Chemiese oorlogvoering vir die SA Weermag-Beginsels en terugvoer oor huidige stand in the SA Weermag (GG/UG/306/3) [Presentation to the reduced Defence Council: Proposed philosophy for Chemical warfare for the SA Defence Force-Principles and feedback with regard to the current position in the SA Defence Force] 25 October 1990. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁴⁴² Testimony of Floris Labuscher op. cit. note 438, 7 June 2000.
- ⁴⁴³ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2131, point 2, pp. 33-39.
- ⁴⁴⁴ Testimony of Gen. Lothar Neethling, op. cit. note 34, 10 June 1998.
- ⁴⁴⁵ *Die Staat teen Wouter Basson; In die Hooggeregshof van Suid-Afrika (Transvaalse Provinsiale Afdeling): Akte van Beskuldiging [The State vs Wouter Basson in the High Court of South Africa (Transvaal Division): Indictment]*, Vol. II, p. 211. EMLC (Elektronies, Meganies, Landbou en

Chemies) was a special technical unit to provide specialist support to Special Forces. The agriculture and chemical divisions broke away and under the leadership of Basson became part of Project Coast. Although registered as a private company it was situated at Speskop, headquarters of Special Forces.

- 446 Dr Vernon Joynt, personal communication with Chandré Gould, 1998. Pepper gas was a common term for CR.
- 447 Statement made during the cross examination of Hennie Bruwer in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 24 January 2000, as reported in the daily trial report prepared by Marlène Burger.
- 448 Testimony of Corrie Ferreira, *op. cit.* note 409, 16 August 2000.
- 449 *Ibid.*
- 450 Testimony of Roelf Louw, *op. cit.* note 379, 23 February 2001.
- 451 Gen. D.P. Knobel, *Fondsbehoefte en fondshantering: Projek Jota* [Funding needs and the handling of funds: Project Jota], 6 July 1992, p. 2. Exhibit K2 in the *State vs Wouter Basson*, South African High Court, Transvaal Division.
- 452 *Ibid.*
- 453 Notule van die vergadering van die Beheerkomitee van Projek Jota gehou op 31 Maart 1993 in die HF Verwoerdgebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on the 31 March 1993 in the HF Verwoerd Building, Cape Town], 31 March 1993. SADF document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 454 Gen. D.P. Knobel and Col. B. Steyn, *Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te George op 7 Januarie 1993* [Briefing of the Minister of Defence about the chronology and current status of Project's Coast and Jota at George on 7 January 1993], 7 January 1993, p. 8. SADF document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 455 *Ibid.* Signed acceptance and authorisation from the Minister of Defence.
- 456 Methaqualone is commonly known as mandrax or Quaaludes.
- 457 Testimony of Gen. Lothar Neethling, *op. cit.* note 34, 10 June 1998.
- 458 J.M. Koekemoer and R.I. Thompson, "An investigation into the synthesis of FP/00/T52 analogues with particular reference to their psychological impact", 28 August 1989. A Delta G Scientific research

- document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 459 Ibid.
- 460 Candy, *op. cit.* note 182, 24 May 2000.
- 461 Jordaan, *op. cit.* note 189, 18 January 2001.
- 462 Delta G Scientific, Production report, Mosrefcat, 31 August 1988. Delta G report made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 463 Testimony of Gen. D.P. Knobel, *op. cit.* note 109, 17 November 1999.
- 464 Ibid.
- 465 Ibid.
- 466 Correspondence from Gen. D.P. Knobel to J. Swanepoel, *op. cit.* note 176, 11 January 1993, p. 12.
- 467 Gen. D.P. Knobel, *Kronologiese verloop van gebeure tov Kroatiese Transaksies (GG/UG/302/6/J1282)* [Chronology of incidents with regard to Croatian Transactions], undated. (“Aanvanklik is produkte en wapentuig ontwikkel wat al drie klasse agense ingesluit het nl irriterend, inkapasiterend en dodend.”) This document was written after 1992 and before 1994. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June and July 1998. This was a subject of one of the fraud charges against Basson. The prosecution claimed that the alleged deal between Basson and Croatia never took place and that it had been a ruse on Basson’s behalf to move money out of the country. Basson testified that the deal had taken place and his testimony was supported by that of Knobel. Basson was found not guilty on the charge against him.
- 468 Ibid.
- 469 Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2063.
- 470 *Nadere Besonderhede ten Aansien van Klagtes 25-64 soos vervat in Volume 2 van die Akte van Beskuldiging* [Further particulars in respect of Charges 25-64 as contained in the Indictment] in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 1999.
- 471 Testimony of Steven Beukes in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 29 October 1999, as reported in the daily trial report prepared by Marlène Burger.
- 472 Ibid.
- 473 The Civil Co-operation Bureau was a State sanctioned hit quad acting under the auspices of the SADF’s Special Forces.

- ⁴⁷⁴ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraphs 1996 and 1997.
- ⁴⁷⁵ J.P. De Villiers, "Perspectives in Chemical Warfare: Lecture to be given to a joint meeting of the Northern Transvaal Branch of the SA Chemical Institute and the Institute for Strategic Studies", University of Pretoria, August 1982. This document comes from the Mechem (formerly the Applied Chemistry Unit of the CSIR) archives and was made available to the author by the Director of Mechem.
- ⁴⁷⁶ In this case "weaponisation" refers to weapons filling.
- ⁴⁷⁷ Testimony of Wouter Basson, *op. cit.* note 138, 7 September 2001.
- ⁴⁷⁸ Testimony of Gen. D.P. Knobel, *op. cit.* note 109, 19 November 1999.
- ⁴⁷⁹ Wouter Basson, Afskryfwaardes [Write-off Values], SADF document used at the TRC hearing into chemical and biological warfare, Cape Town June/July 1998. This document is dated 1 February 1994.
- ⁴⁸⁰ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2131, points 33-39.
- ⁴⁸¹ *Ibid.*, paragraph 2081.
- ⁴⁸² Letter from Philip Mijburgh to Brig. Basson dated 30 July 1992 and headed: "Offer for the manufacture of 'Baxil'", 30 August 1992. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁴⁸³ A letter from the Surgeon-General, Gen. D.P. Knobel to Philip Mijburgh dated 7 August 1992: "Produksie van d-N,a-DIMETHYLPHENETHYLAMINE (BAXIL)" [Production of d-N,a-DIMETHYLPHENETHYLAMINE (Baxil)] This document was made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁴⁸⁴ Testimony of Dr. Johan Koekemoer, *op. cit.* note 147, 11 June 1998.
- ⁴⁸⁵ This is despite the fact that MDMA was publicly known to have been studied during the United States Army incapacitating-agent research programme in the 1960s.
- ⁴⁸⁶ Final report of the Truth and Reconciliation Commission, Special Investigation into Project Coast: South Africa's Chemical And Biological Warfare Programme, Vol. 2, Chapter 6, 1999.
- ⁴⁸⁷ Steyn, *op. cit.* note 433, 7 January 1993.
- ⁴⁸⁸ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2131, point 46.
- ⁴⁸⁹ Steyn, *op. cit.* note 433.
- ⁴⁹⁰ Statement made by Adv. Jaap Cilliers during the cross-examination of Gen. D.P. Knobel, *op. cit.* note 109, 29 November 1999.

- ⁴⁹¹ Testimony of Wouter Basson, *op. cit.* note 138, 7 September 2001.
- ⁴⁹² Jordaan, *op. cit.* note 189, 18 January 2001.
- ⁴⁹³ Verkleinde Verdedigingsbevelraad: Notule van Vergadering gehou om 07h30 op 25 Oktober 1990 te Samik (HS Plan/DP/302/6/COAST and HS PLAN/Dp/302/6/KEYBOARD) [Reduced Defence Council: Minutes of Meeting held at 07h30 on 25 October 1990 at Samik]. Document handed to the TRC by Gen. Knobel during the TRC hearings into Chemical and Biological Warfare, June/July 1998.
- ⁴⁹⁴ See the detailed discussion of the alleged chemical attack in Mozambique later in this chapter.
- ⁴⁹⁵ Knobel, *op. cit.* note 207. "Tans is daar in voorraad by die SAGD die volgende spesialis chemikalie wat in die 1993/1994 FJ verwerk sal word vir die bepaalde produkte: (a) 1000kg produk B; (b) 500kg produk M; (c) 30kg produk C." Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, June 1998.
- ⁴⁹⁶ Knobel, *op. cit.* note 107.
- ⁴⁹⁷ J.G. De Bruyn, Sertifiseering tov die vernietiging van Chemiese produkte op 27 Januarie 1993 (AI/UG/302/6/C123-2) [Certification with regard to the destruction of Chemical Products on 27 January 1993], 30 March 1993. This document was made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁴⁹⁸ Affidavit of Brig. H.F. Strauss, South African Police Forensic Laboratory, 9 June 1993. This document was made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁴⁹⁹ Statement made by Adv. Cilliers during the cross-examination of Hennie Bruwer in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 25 February 2000, as reported in the daily trial report prepared by Marlène Burger.
- ⁵⁰⁰ Bruwer, *op. cit.* note 217, 10 August 2000.
- ⁵⁰¹ Testimony of Floris Laubscher, *op. cit.* note 438, 7 June 2000.
- ⁵⁰² Testimony of Wouter Basson, *op. cit.* note 138, 23 July 2001.
- ⁵⁰³ OPCW document. Report of the Temporary Working Group of the OPCW Scientific Advisory Board on the issue of low concentration limits for Schedule 2A/2A chemicals, 6 November 2000.
- ⁵⁰⁴ Personal electronic communication between Col. Ben Steyn and C. Gould, 1 March 2001.

- 505 Staff Paper prepared for the Steyn Commission on alleged dangerous activities of SADF components, December 1992. This document was handed to the TRC by Gen. D.P. Knobel during the TRC hearing into Chemical and Biological Warfare. It was made public at the time of the hearing.
- 506 S. Persson, H. Staub and J.P. Thompson, Report of the Mission dispatched by the Secretary-General to investigate an alleged use of chemical weapons in Mozambique, United Nations, 12 June 1992.
- 507 J.P. Thompson, Chemical & Biological Defence Establishment: Report on an investigation into the alleged use of chemical weapons in Mozambique, January 1992, 17 February 1992.
- 508 *Ibid.*, p. 3.
- 509 Persson, Staub, and Thompson, *op. cit.* note 506, p. 9.
- 510 *Ibid.*, p. 10.
- 511 *Ibid.*, p. 10.
- 512 Staff Paper prepared for the Steyn Commission on alleged dangerous activities of SADF components, December 1, 1992. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 513 Persson, Staub and Thompson, *op. cit.* note 506, p. 11.
- 514 Thompson, *op. cit.* note 507.
- 515 B. Davey, Chemical Incident Verification Mission Mozambique 22-24 January 1992, 29 January 1992. Document made available to the press and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 516 Casualty 13 interviewed by Thompson on 30 January 1992.
- 517 Davey, *op. cit.* note 515, p. 1.
- 518 *Ibid.*, p. 2.
- 519 *Ibid.*, p. 2.
- 520 *Ibid.*, p. 1.
- 521 Lourens, *op. cit.* note 96, 23 January 1998.
- 522 A. Andersson and S. Persson, The final report given by the experts appointed by ASDI to assist the government of Mozambique in order to investigate the alleged use of chemical warfare agent(s) in the Ngungue Incident, 3 March 1992, p. 8.
- 523 *Ibid.*
- 524 B. Davey, Report on a meeting in Maputo with the United Nations team investigating the alleged use of chemical weapons by Renamo in January 1992, 27 March 1992. This was a document prepared for

- internal circulation within the SADF and was made available to the public during the TRC hearing in 1998.
- 525 Ibid., p. 1.
- 526 Ibid., p. 2.
- 527 De Bruyn, op. cit. note 497, 30 March 1993.
- 528 Candy, op. cit. note 182, 24 May 2000.
- 529 Daniel Goosen and Dawid Spamer, *Ontvangstes en Betalings: Oktober/November 1983 [Income and Expenditure: October/November 1983]*. Daniel Goosen, André Immelman and Dawid Spamer, *Presensielys van die Tweede Direksievergadering gehou op 28 Februarie 1984 [Attendance list of the Second Directors meeting held on 28 February 1984]*. Documents handed to the author by Dr. Schalk Van Rensburg.
- 530 Wouter Basson and Gen. D.P. Knobel, *Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te Pretoria op 10/8/93 [Briefing of the Minister of Defence about the chronology and current status of Projects Coast and Jota in Pretoria on 10/8/93]*, 10 August 1993, p. 4-5. Document made available to the public by the TRC during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- 531 Ibid.
- 532 Basson, op. cit. note 432, 28 November 1989.
- 533 Basson and Knobel, op. cit. note 530, 1993.
- 534 Immelman, op. cit. note 309.
- 535 Basson and Knobel, op. cit. note 530, 1993.
- 536 Interview with Chandré Gould in Cape Town, 7 December 2000.
- 537 *Notule van die vergadering van die Beheerkomitee van Projek Jota wat gehou is op 9 Januarie 1995 by die Kantoor van HNW (G/UG/302/6/J1282) [Minutes of the meeting of the Control Committee of Project Jota held on the 9 January 1995 in the office of the Chief of the National Defence Force]*, 9 January 1995. This document was made available to the press and public during the TRC hearings into chemical and biological warfare, Cape Town, June 1998.
- 538 Testimony of Dr Wynand Swanepoel as reflected in the transcript of the Truth and Reconciliation Commission's hearing into chemical and biological warfare, 9 June 1998.
- 539 *Openingsbetoog-Dr Basson [Opening statement-Dr Basson]*, made by Anton Ackerman in *The State vs Wouter Basson*, High Court of South Africa, Transvaal Division, November 1999.

- 540 Ibid. The sale of protective CBW clothing as outlined in Charge 65 took
place this way.
- 541 Ibid.
- 542 Ibid.
- 543 Ibid.
- 544 Bruwer, *op. cit.* note 226, 10 November 1999.
- 545 Ibid.
- 546 Testimony of Wouter Basson, *op. cit.* note 138, 24 July 2001.
- 547 Ibid.
- 548 Judgement in *The State vs Wouter Basson*, South African High Court,
Transvaal Division, 11 April 2002, paragraph 2131, point 56.
- 549 Ibid.
- 550 Philip Mijburgh, MD of Delta G Scientific, purchased half the shares in
an import export company known as Kowalski International which was
initially owned solely by Dr. Z.E. Kowalski, a Polish citizen. Kowalski
introduced Basson and Mijburgh to a Russian by the name of Evstigne
which acted as a translator during Basson and Mijburgh's trips to
Russia. They used the Jetstar for these visits.
- 551 Testimony of Philip Mijburgh as reflected in the transcript of the TRC
hearing into chemical and biological warfare, Cape Town, 7 July 1998.
- 552 Ibid.
- 553 Ibid.
- 554 Judgement in *The State vs Wouter Basson*, South African High Court,
Transvaal Division, 11 April 2002, paragraph 2131 point 55.
- 555 A.J. Liebenberg, *Voorstelle mbt die Beeindiging van Kontraktuele
verbintenis met die Medchem Groep miv 1 September 1991-
Implikasies en opsies: Projek Coast (HSF/UG/302/6/C123)* [Proposals
with regard to the termination of contractual ties with the Medchem
Group with effect from 1 September 1991-Implications and Options:
Project Coast), 9 August 1991. SADF document made available to the
TRC and public at the TRC hearings into chemical and biological
warfare, June and July 1998.
- 556 Ibid.
- 557 Ibid.
- 558 Ibid.
- 559 Gen. A.J. Liebenberg and Wouter Basson, *Magtiging vir die afverkoop
van bates: Projek Coast (HSF/UG/302/6/C123)* [Authorisation for the
sale of assets: Project Coast], 19 August 1991. Document made
available to the TRC and public during the TRC hearing into chemical
and biological warfare, Cape Town, 1998.

- 560 Alternatiewe tot die verandering van die SAW se belang by CO navoring & ontwikkeling mbt die Medchem groep van maatskappye [Alternatives to the change in the SADF's interests in Chemical Warfare research and development with regard to the Medchem group of companies], 12 August 1988. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, 1998. Testimony of Gen. D.P. Knobel, op. cit. note 109, 16 November 1999.
- 561 Testimony of Barend du Plessis in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 8 August 2000, as reported in the daily trial report prepared by Marlène Burger.
- 562 Liebenberg and Basson, op. cit. note 559.
- 563 Ibid.
- 564 Ibid.
- 565 Ibid.
- 566 Ibid.
- 567 Bruwer, op. cit. note 226, 10 November 1999, p. 291.
- 568 Testimony of Gen. D.P. Knobel, op. cit. note 127, 12 June 1998.
- 569 Basson, op. cit. note 432, 11 November 1989.
- 570 Ibid.
- 571 Ibid.
- 572 Ibid.
- 573 D.P. Knobel, Briefing to President Mandela on the Defensive Chemical and Biological Warfare Programme of the SADF and the RSA's position with regard to the CWC and BWC (GG/UG/302/6/J1282/5), 18 August 1994. Top Secret SADF document made public by the TRC during the hearings into chemical and biological warfare in 1998.
- 574 Ruling in response to the State's request for the Judge's recusal, as reported by Marlène Burger for the CCR's CBW research project, 16 February 2000.
- 575 Testimony of Gen. D.P. Knobel, op. cit. note 127, 12 June 1998.
- 576 Ibid.
- 577 Ibid.
- 578 Basson, op. cit. note 432, 11 November 1989.
- 579 Knobel, op. cit. note 467.
- 580 Lourens, op. cit. note 96, 23 January 1998.
- 581 ANC submission to the Truth and Reconciliation Commission, August 1996, <http://www.truth.org.za/submit/anctruth.htm>.
- 582 "United Nations Says South Africa Used Gas in Angola Raid", *New York Times*, 3 August 1979.

- ⁵⁸³ Correspondence between Col. B Redelinghuys (South African Defence and Armed Forces Attaché) to The Dean, Hampshire College, 13 September 1979.
- ⁵⁸⁴ Die Staat teen Wouter Basson: Akte van Beskuldiging, Vol. II, Dwelm-, Moord-, Sameswering en aanverwanteklagtes, in die Hooggeregshof van Suid-Afrika (Transvaalse Provinsiale Afdeling), [The State vs Wouter Basson: Indictment, Vol. II, Drug-, Murder-, Conspiracy and related charges, in the High Court of South Africa (Transvaal Provincial Division)], 1998.
- ⁵⁸⁵ Testimony of Johan Theron, op. cit. note 165, 3 May 2000.
- ⁵⁸⁶ Basson denied the allegation of his involvement in this and contested the evidence of Johan Theron through his defence advocate, Jaap Cilliers during argument in support of the acquittal of charges against Basson.
- ⁵⁸⁷ Testimony of Johan Theron, op. cit. note 165, 3 May 2000.
- ⁵⁸⁸ Judgement in The State vs Wouter Basson, South African High Court, Transvaal Division, 11 April 2002, paragraph 1987.
- ⁵⁸⁹ The name given to the covert Special Forces Operation aimed at “eliminating” those who were identified as a threat to the security of the State. The operation changed its name to the Civil Co-operation Bureau later.
- ⁵⁹⁰ Testimony of Trevor Floyd, op. cit. note 356, 9 May 2000.
- ⁵⁹¹ Truth and Reconciliation Commission Amnesty Committee, Decision with regard to the amnesty applications of Nicolaas Jacobus Janse Van Rensburg, Herman Jacobus Du Plessis, Gerrit Nicholas Erasmus and Gideon Johannes Nieuwoudt, 2000, <http://www.truth.org.za/decisions/2000/ac200034.htm>. Jacques Pauw, Lothar se Doepa, in the *Vrye Weekblad*, 1 December 1989.
- ⁵⁹² Truth and Reconciliation Commission Amnesty Committee, Decision with regard to the amnesty applications of Dirk Coetzee, David Tshikalange and Butana Almond Nofomela, 5 August 1997, <http://www.truth.org.za/decisions/1997/970805CotezeeTshikalangeNofomela.htm>.
- ⁵⁹³ Jacques Pauw, *In the heart of the whore: The story of apartheid's death squads*, Johannesburg: Halfway House, 1991, p. 187.
- ⁵⁹⁴ Truth and Reconciliation Commission Amnesty Committee, Decision with regard to the amnesty applications of Nicolaas Janse Van Rensburg, Hermanus Barend Du Plessis, Johannes Gottfried Raath and Gerrit Nicholas Erasmus, 1999, <http://www.truth.org.za/decisions/1999/99van%20rensburg.html>.

- 595 This was word used to refer to former liberation movement members
who were captured and began working for their captors as members
of the South African police.
- 596 Pauw and se Doepa, op. cit. note 591.
- 597 Testimony of Dirk Coetzee in his amnesty hearing, from the transcript
of the amnesty proceedings held at Durban on 5 November 1996
(pp.1-278), <http://www.truth.org.za/amntrans/durban2/coetzee1.htm>.
- 598 ANC submission to the Truth and Reconciliation Commission, August
1996, <http://www.truth.org.za/submit/anctruth.htm>.
- 599 *Resister: Bulletin of the Committee on South African War Resistance,*
Chemical War Threat, No. 3, London, December-January 1983.
- 600 Testimony of Danie Phaal, op. cit. note 290, 8 May 2000.
- 601 Testimony of Johan Theron, op. cit. note 165, 3 May 2000. Testimony
of Dr Kobus Bothma, op. cit. note 296, 12 June 2000.
- 602 Testimony of Danie Phaal, op. cit. note 290, 8 May 2000.
- 603 Chandré Gould and Peter Folb interview with Daphne White, London,
30 August 2000.
- 604 Testimony of Trevor Floyd, op. cit. note 356, 10 May 2000.
- 605 Testimony of Johan Theron, op. cit. note 165, 3 May 2000. Die Staat
teen Wouter Basson: Akte van Beskuldiging, Vol. II, Dwelm-, Moord-,
Sameswering en aanverwanteklagtes, in die Hooggeregshof van Suid-
Afrika (Transvaalse Provinsiale Afdeling), 1998.
- 606 ANC submission to the Truth and Reconciliation Commission, August
1996, <http://www.truth.org.za/submit/anctruth.htm>.
- 607 Testimony of Johan Theron, op. cit. note 165, 3 May 2000. Testimony
of Danie Phaal, op. cit. note 290, 8 May 2000. Die Staat teen Wouter
Basson: Akte van Beskuldiging, Vol. II, Dwelm-, Moord-, Sameswering
en aanverwanteklagtes, in die Hooggeregshof van Suid-Afrika
(Transvaalse Provinsiale Afdeling), 1998.
- 608 Judgement in *The State vs Wouter Basson*, South African High Court,
Transvaal Division, 11 April 2002, paragraph 2038.
- 609 Pauw, op. cit. note 593.
- 610 Lourens, op. cit. note 96, 23 January 1998.
- 611 Pauw, op. cit. note 593.
- 612 Ibid.
- 613 Mangold and Goldberg, op. cit. note 55, p. 227.
- 614 Testimony of Johan Theron, op. cit. note 165, 3 May 2000.
- 615 Truth and Reconciliation Commission Amnesty Committee, Lubane
Matter-Argument, 4 November 1999, [http://www.truth.org.za/
amntrans/1999/99110212pre/991104pt.htm](http://www.truth.org.za/amntrans/1999/99110212pre/991104pt.htm).

- ⁶¹⁶ Truth and Reconciliation Commission Amnesty Committee, Decision with regard to the amnesty application of Jan Hattingh Cronjé (AM2773/96), 1999, <http://www.truth.org.za/decisions/1999/99Cronje.html>.
- ⁶¹⁷ Testimony of Trevor Floyd, op. cit. note 356, 10 May 2000. Testimony of Jan Lourens op. cit. note 347, 19 May 2000.
- ⁶¹⁸ Testimony of Jan Anton Nieuwoudt, op. cit. note 178, 16 May 2000. Die Staat teen Wouter Basson: Akte van Beskuldiging, Vol II, Dwelm-, Moord-, Sameswering en aanverwanteklagtes, in die Hooggeregshof van Suid-Afrika (Transvaalse Provinsiale Afdeling), 1998.
- ⁶¹⁹ Ibid.
- ⁶²⁰ Testimony of Dr André Immelman, op. cit. note 151, 29 May 2000. Testimony of Dr Gerbus Muller, op. cit. note 306, 26 February 2001. Testimony of Rev Frank Chikane in the State vs Wouter Basson, South African High Court, Transvaal Division, as reported by Marlène Burger in the daily trial reports prepared for the CCR's CBW research project, 30 October 2000. Testimony of Charles Zeelie in the State vs Wouter Basson, South African High Court, Transvaal Division, 31 October 2000, as reported in the daily trial report prepared by Marlène Burger.
- ⁶²¹ Testimony of Pieter Botes, op. cit. note 332, 15 May 2000.
- ⁶²² Testimony of Abraham Van Zyl in the State vs Wouter Basson, South African High Court, Transvaal Division, 12 May 2000, as reported in the daily trial report prepared by Marlène Burger. Die Staat teen Wouter Basson: Akte van Beskuldiging, Vol II, Dwelm-, Moord-, Sameswering en aanverwanteklagtes, in die Hooggeregshof van Suid-Afrika (Transvaalse Provinsiale Afdeling), 1998.
- ⁶²³ Jacques Pauw, *Into the Heart of Darkness: Confessions of Apartheid's Assassins*, Johannesburg: Jonathan Ball, 1997.
- ⁶²⁴ De Kock and Gordin, op. cit. note 46, p. 83.
- ⁶²⁵ Johan Koekemoer, electronic correspondence with Chandré Gould, 4 April 2001.
- ⁶²⁶ Testimony of Dr Mike Odendaal, op. cit. note 331, 24 May 2000.
- ⁶²⁷ Testimony of Danie Phaal, op. cit. note 290, 8 May 2000. The State vs Wouter Basson: Indictment, Vol. II, Drugs, Murder, Conspiracy and related charges, in the High Court of South Africa, Transvaal Provincial Division, 1998.
- ⁶²⁸ See detailed discussion earlier in this chapter.
- ⁶²⁹ Brian Davey, Chemical Incident Verification Mission, Mozambique 22-24 January 1992, SADF document made available to the public

- during the TRC's hearing into chemical and biological warfare, June 1998, 29 January 1992.
- ⁶³⁰ Staff paper prepared for the Steyn Commission on alleged dangerous activities of SADF components, December 1992. Document handed to the TRC by Gen. Knobel during the TRC hearings into chemical and biological warfare. The document was made available to the public in June 1998.
- ⁶³¹ ANC submission to the Truth and Reconciliation Commission, August 1996, <http://www.truth.org.za/submit/anctruth.htm>.
- ⁶³² Testimony of Gen. D.P. Knobel, *op. cit.* note 109, 15 November 1999. Chandré Gould interview with Gen. Jannie Geldenhuys, Pretoria, 4 September 2001.
- ⁶³³ Chandré Gould interview with a former military officer who requested not to be named, Pretoria, 17 January 2001.
- ⁶³⁴ A table listing CMC members can be found at the end of this chapter.
- ⁶³⁵ For example Mr Wally Van Heerden, representative of the Auditor-General, took part in a meeting of the Co-ordinating Management Committee on 31 March 1993 where one of the issues for discussion was the privatisation of the front companies, RRL and Delta G. Notule van die vergadering van die Beheerkomitee van Projek Jota gehou op 31 Maart 1993 in die HF Verwoerdgebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on the 31 March 1993 in the HF Verwoerd Building, Cape Town]
- ⁶³⁶ Testimony of Gen. D.P. Knobel, *op. cit.* note 127, 12 June 1998.
- ⁶³⁷ *Ibid.*
- ⁶³⁸ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraphs 113 and 114.
- ⁶³⁹ *Ibid.*
- ⁶⁴⁰ Testimony of Gen. D.P. Knobel, *op. cit.* note 109, 15 November, 1999.
- ⁶⁴¹ Goosen, Odendaal and Botha, *op. cit.* note 264, 1 December 1999.
- ⁶⁴² Testimony of Gen. D.P. Knobel, *op. cit.* note 127, 11 June 1998.
- ⁶⁴³ Testimony of Jan Lourens, *op. cit.* note 192, 8 June 1998.
- ⁶⁴⁴ *Ibid.*
- ⁶⁴⁵ Testimony of Daan Goosen *op. cit.* note 211, 11 June 1998.
- ⁶⁴⁶ Chandré Gould interview with Gen. R. Badenhorst, Pretoria, 16 January 2001.
- ⁶⁴⁷ Testimony of Gen. D.P. Knobel, *op. cit.* note 127, 18 June 1998.
- ⁶⁴⁸ Interview of Gen. R. Badenhorst *op. cit.* note 646, 11 June 1998.

- 649 Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 113.
- 650 *Borgaansoek van Dr. Wouter Basson in die Streekhof vir die Streekafdeling van Noord-Transvaal gehou in Pretoria* [Bail application of Dr Wouter Basson in the Regional Court of the Northern Transvaal, held in Pretoria], Vol 8. 3 November 1997.
- 651 Testimony of Vice Admiral Paul Murray in *The State vs Wouter Basson*, Pretoria High Court, as reported by Marlène Burger on behalf of the CCR's CBW research project, 20 February 2001.
- 652 Ibid.
- 653 Ibid.
- 654 Ibid.
- 655 Ibid.
- 656 Ibid.
- 657 Ibid.
- 658 Testimony of Gen. D.P. Knobel, *op. cit.* note 127, 18 June 1998.
- 659 Testimony of Gen. D.P. Knobel, *op. cit.* note 109, 23 November 1999.
- 660 Cross examination of Gen. D.P. Knobel, *op. cit.* note 109, 23 November 1999.
- 661 Testimony of Dr Wouter Basson as reflected in the transcript of the TRC hearing into Chemical and Biological Warfare, Cape Town, 31 July 1998.
- 662 Testimony of Gen. R. Badenhorst in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger on behalf of the CCR's CBW research project, 7 November 2001.
- 663 Ibid.
- 664 Ibid.
- 665 Ibid.
- 666 Badenhorst, *op. cit.* note 646, 16 January 2001.
- 667 Testimony of Maj. Hercules Orffer in *The State vs Wouter Basson*, 1 March 2000, as reported in the daily trial report prepared by Marlène Burger.
- 668 Ibid.
- 669 Ibid.
- 670 Testimony of Hercules Orffer, *op. cit.* note 667, 1 March 2000.
- 671 Testimony of Hein Pfeil in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 2 March 2000, as reported in the daily trial report prepared by Marlène Burger.
- 672 Ibid.
- 673 Ibid.

- 674 Ibid.
- 675 Testimony of Gen. D.P. Knobel, op. cit. note 109, 15 November 1999.
- 676 Ibid.
- 677 Testimony of Pierre Theron in the State vs Wouter Basson, 1 August 2000, as reported in the daily trial report prepared by Marlène Burger.
- 678 No date was provided during the evidence.
- 679 Wouter Basson, Kommentaar tov ouditnavraag van Mnr W. Van Heerden [Comments with regard to audit inquiries of Mr W Van Heerden], Exhibit 3A in The State vs Wouter Basson, South African High Court, Transvaal Division.] The document is undated.
- 680 Ibid.
- 681 Gen. D.P. Knobel, Ondersoek Ingevolge Artikel 5 van Wet 117 van 1991: Projek Jota [Investigation in terms of Article 5 of Act 117 of 1989: Project Jota], 7 September 1994. Exhibit O2 in The State vs Wouter Basson, South African High Court, Transvaal Division.
- 682 Ibid.
- 683 Testimony of Gen. D.P. Knobel, op. cit. note 127, 18 June 1998.
- 684 Testimony of Gen. D.P. Knobel, op. cit. note 109, 23 November 1999.
- 685 Ibid.
- 686 Ibid., 15 November 1999.
- 687 Founding Affidavit of Dawid Fouché in support of an application for a restraining order on Certain Immovable Property Situated At 41 Queen Wilhelmina Avenue, Lukasrand, Pretoria, and Other Properties, sought by the National Director of Prosecutions in 1999.
- 688 Knobel, op. cit. note 451.
- 689 Ibid.
- 690 Ibid.
- 691 “The European banks are these days implementing strict controls to prevent money laundering from the drug business. Where we often have to do with questionable suppliers (especially with regard to controlled chemicals), we have to be careful not to create this impression. It takes us now an average of two months from the time the money is sent out of South African until it is in position in Europe.” From Knobel, op. cit. note 451, paragraph 12.
- 692 Judgement in The State vs Wouter Basson, South African High Court, Transvaal Division, 11 April 2002, paragraph 2047.
- 693 Testimony of Charles van Remoortere, op. cit. note 142, 11-13 September 2000.
- 694 Judgement in The State vs Wouter Basson, South African High Court, Transvaal Division, 11 April 2002, paragraph 2094.

- 695 Testimony of Gen. Dirk Verbeek in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 6 November 2000, as reported in the daily trial report prepared by Marlène Burger.
- 696 Ibid.
- 697 Ibid.
- 698 Ibid.
- 699 Ibid.
- 700 Testimony of Johan Theron, *op. cit.* note 165, 4 May 2000.
- 701 Comments made during the cross examination of Gen. Dirk Verbeek, *op. cit.* note 695, 6 November 2000.
- 702 This information is derived from selected minutes of meetings of the CMC made available to the TRC by Gen. Knobel. The dates provided correspond with dates of the meetings: Verkleinde Verdedigingsbevelraad: Notule van Vergadering gehou om 07h30 op 25 Oktober 1990 te Samik (HS Plan/DP/302/6/COAST and HS PLAN/Dp/302/6/KEYBOARD) [Reduced Defence Council: Minutes of Meeting held at 07h30 on 25 October 1990 at Samik]; Notule van die vergadering van die Beheerkomitee van Projek Jota gehou op 31 Maart 1993 in die HF Verwoerdgebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on the 31 March 1993 in the HF Verwoerd Building, Cape Town]; Notule van 'n Spesiale KBK Vergadering wat gehou is op 2 Desember 1994 in die kantoor van HNW (GG/UG/302/6/J1282) [Minutes of a Special Co-ordinating Control Committee held on 2 December 1994 in the office of the Chief of the Defence Force]; Notule van die Beheerkomitee van Projek Jota wat gehou is op 29 Maart 1994 by die Kantoor van HSAW (GG/UG/302/6/J1282) [Minutes of the Co-ordinating Management Committee of Project Jota held on 29 March 1994 in the Office of the Chief of the South African Defence Force]; Notule van die vergadering van die Beheerkomitee van Projek Jota gehou op 24 Januarie 1994 in die kantoor van HSAW (GG/UG/302/6/J282) [Minutes of a meeting of the Control Committee of Project Jota held on 24 January 1994 in the office of the Chief of the South African Defence Force]; Notule van die vergadering van die Beheerkomitee van Projek Jota wat gehou is op 9 Januarie 1995 by die Kantoor van HNW (G/UG/302/6/J1282) [Minutes of the meeting of the Control Committee of Project Jota held on the 9 January 1995 in the office of the Chief of the National Defence Force]; Notule van die vergadering van die beheerkomitee van Projek Jota gehou op 29 Jan 1993 in die HF Verwoerd gebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of

- the meeting of the Control Committee of Project Jota held on 29 January 1993 in the HF Verwoerd Building, Cape Town].
- 703 Testimony of Floris Laubscher, op. cit. note 438, 7 June 2000.
- 704 Testimony of Gen. D.P. Knobel, op. cit. note 127, 12 June 1998.
- 705 South African Press Agency report, "Basson spied on Iraq for the West", *Independent On-line*, 1998 (the report obtained via the internet did not carry a specific date).
- 706 Testimony of Gen. D.P. Knobel, op. cit. note 127, 12 June 1998.
- 707 Ibid.
- 708 Testimony of Dr Wouter Basson, op. cit. note 661, 31 July 1998.
- 709 Ibid.
- 710 Swiss parliamentary delegation report, Le rîle Des Services reassignments Suites Dan le cadre Des relations entree la Sues et l'Afrique du Sud, 12 November 1999.
- 711 Chandré Gould interview of Gen. Chris Thirion, Pretoria, 4 September 2001.
- 712 Ibid.
- 713 Wouter Basson, Report . Week ending 9 May 1981. This document was found in trunks after Basson's arrest in 1997 and was made available to the public during the TRC hearing in 1998. It is a hand written document.
- 714 Personal electronic communication between Chandré Gould and Dr W.S. Augerson, 15 February 2001.
- 715 Ibid., 16 February 2001.
- 716 Thirion, op. cit. note 711, 4 September 2001.
- 717 Steenkamp, op. cit. note 20, 6 December 2000.
- 718 Milton Leitenberg, written communication with Chandré Gould, August 2001.
- 719 The document in question was: Notule van die Beheerkomitee van Projek Jota wat gehou is op 29 Maart 1994 by die Kantoor van HSAW (GG/UG/302/6/J1282) [Minutes of the Co-ordinating Management Committee of Project Jota held on 29 March 1994 in the Office of the Chief of the South African Defence Force]. This document was handed to the TRC by Gen. Knobel and distributed to the press and public during the hearing.
- 720 Swiss parliamentary delegation report, op. cit. note 710, 12 November 1999.
- 721 Ibid.
- 722 Ibid.
- 723 Ibid.

- 724 Ibid.
- 725 Ibid.
- 726 Ibid.
- 727 Ibid.
- 728 Cross examination of Gen. D.P. Knobel, op. cit. note 109, 29 November 1999.
- 729 Swiss parliamentary delegation report, op. cit. note 710, 12 November 1999.
- 730 Knobel, op. cit. note 467. It is believed that this document was drawn up in 1993.
- 731 Swiss parliamentary delegation report, op. cit. note 710, 12 November 1999.
- 732 Knobel, op. cit. note 467, p. 2 [Na 'n besoek deur die projekoffisier aan Moskou in Februarie 1991, is die projekoffisier bekendgestel aan 'n reeks persons wat in die gebied van die chemiese oorlogvoering werksaam is of was, onder andere 'n groep in Kroasie.]
- 733 Lt.-Gen. C.P. van der Westhuizen, Projek Jota [Project Jota], SADF document TI/202/1/20/1, 25 March 1992, p. 4, paragraph 16. This document was made available to the press and public during the TRC hearing into chemical and biological warfare held in Cape Town in June and July 1998.
- 734 Testimony of Wouter Basson, op. cit. note 138, 27 July 2001.
- 735 Ibid.
- 736 Gen. D.P. Knobel, op. cit. note 109, 18 November 1999.
- 737 This is how the chemical was referred to in the transactions although there is no reference to such chemical in *The Merck Index: An Encyclopedia of Chemicals, Drugs and Biologicals*, Twelfth Edition, 1996.
- 738 Letter from Jurg Jacomet to Wouter Basson, 5 November 1992, Exhibit F19.13 in *The State vs Wouter Basson*, South African High Court, Transvaal Division. Referred to on page 1203 of the official court transcript of proceedings.
- 739 Testimony of Wouter Basson, op. cit. note 138, 27 July 2001.
- 740 Ibid.
- 741 Bernard Zimmer testified in *The State vs Wouter Basson* on August 21-25, and December 13, 2000. David Webster testified in *The State vs Wouter Basson* on 10-13 October, 16 October and 23 October 2000. Charles van Remoortere testified in *The State vs Wouter Basson* on 11-13 September 2000 and 27-28 September 2000. David Chu testified in *The State vs Wouter Basson* on 29 January and 1 February 2001.

- ⁷⁴² Goosen, Botha and Odendaal, op. cit. note 264, 1 December 1999.
- ⁷⁴³ Jack Leonard, "Disease-Causing Bacteria Found in Biofem Probe", *LA Times*, 30 April 2000, <http://www.latimes.com/editions/orange/20000430/t000040778.html>.
- ⁷⁴⁴ Jack Leonard, "No Sign That Doctor Used Deadly Germs on Patients", *LA Times*, 2 May 2000, <http://www.latimes.com/editions/orange/20000502/t000041336.html>.
- ⁷⁴⁵ Scott Martelle and Jack Leonard, "Explosives Found in Exec's Yard", *LA Times*, 11 March 2000, <http://www.latimes.com/cgi-bin>.
- ⁷⁴⁶ Chelsea J Carter, "Suicide leads to cache of weapons", *Contra Costa Times*, 3 November 2000.
- ⁷⁴⁷ Jeff Collins, "Ford Advised S.Africa on Warfare Devices", *Orange County Register*, March 15, 2000. <http://www.ocregister.com>.
- ⁷⁴⁸ Testimony of André Immelman, op. cit. note 151, 29 May 2000.
- ⁷⁴⁹ Scott Martelle, Jeff Gottlieb and Jack Leonard, "A Doctor, A Deal Maker and A Mystery", *LA Times*, 20 March 2000, <http://www.latimes.com>.
- ⁷⁵⁰ Jack Leonard & Jeff Gottlieb, "Biofem Case: Focus Now on 80s Attache", *LA Times*, 17 July 2000, <http://www.latimes.com>.
- ⁷⁵¹ Ibid.
- ⁷⁵² Martelle, Gottlieb and Leonard, op. cit. note 749.
- ⁷⁵³ Julian Rademeyer, "Illegal Tests on SA Prostitutes?", *Pretoria News*, 22 July 2000. www.geocities.com/project_coast/ptabio.htm.
- ⁷⁵⁴ Ibid.
- ⁷⁵⁵ Milton Leitenberg, personal electronic communication with Chandré Gould on 7 September 2000.
- ⁷⁵⁶ Tony Saavedra, Bill Rams and Heather Lourie, "Biofem intrigue heightens", *Orange County Register*, 5 May 2000.
- ⁷⁵⁷ Arthur Allen, "Mad Scientist", *Salon magazine*, 26 June 2000, <http://slaon.com>.
- ⁷⁵⁸ Martelle and Leonard, op. cit. note 745.
- ⁷⁵⁹ Testimony of Graeme Gibson in *The State vs Wouter Basson*, South African High Court, Transvaal Division, as reported by Marlène Burger in the trial report prepared for the CCR's CBW research project, 6 June 2000.
- ⁷⁶⁰ Ibid.
- ⁷⁶¹ Wouter Basson, Verslag: Week Eindigende 09/05/81 [Report: Week ending 09/05/81]. Document made available during the TRC hearings in 1998, found in one of Basson's trunks.

- ⁷⁶² Itinerary for the visit of LTC Basson, the Republic of South Africa May 26 1981, document made available during the TRC hearings in 1998, found in one of Basson's trunks.
- ⁷⁶³ Testimony of Martin Van Der Linde op. cit. note 165, 12 May 2000.
- ⁷⁶⁴ "SA experts went abroad-UK publication 'Defence against nerve gas sought'", *The Star*, Johannesburg, 10 February 1988.
- ⁷⁶⁵ Testimony of David Webster in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 12 October 2000, as reported in the daily trial report prepared by Marlène Burger.
- ⁷⁶⁶ *Ibid.*, 13 October 2000.
- ⁷⁶⁷ *Ibid.*
- ⁷⁶⁸ *Ibid.*
- ⁷⁶⁹ *Ibid.*
- ⁷⁷⁰ Testimony of Samuel Bosch in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 14-29 March 2000, as reported in the daily trial report prepared by Marlène Burger.
- ⁷⁷¹ *Ibid.*
- ⁷⁷² Testimony of Tjaard Viljoen in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 3-14 March 2000, as reported in the daily trial report prepared by Marlène Burger.
- ⁷⁷³ Testimony of Samuel Bosch, op. cit. note 770, 14-29 March 2000.
- ⁷⁷⁴ Testimony of Tjaard Viljoen, op. cit. note 772, 3-14 March 2000.
- ⁷⁷⁵ Knobel, op. cit. note 467.
- ⁷⁷⁶ Testimony of Tjaard Viljoen, op. cit. note 772, 3-14 March 2000.
- ⁷⁷⁷ Testimony of David Webster, op. cit. note 765, 13 October 2000.
- ⁷⁷⁸ Testimony of Samuel Bosch, op. cit. note 770, 14-29 March 2000.
- ⁷⁷⁹ Testimony of Niel Kirstein op. cit. note 137, 9-10 November 1999. Testimony of Tjaard Viljoen, op. cit. note 772, 14 March 2000.
- ⁷⁸⁰ Wouter Basson and D.P. Knobel, *Finale Verslag: VSA Dollar Voorskot* [Final report: USA Dollar Advance], 7 May 1994. SADF document justifying the advance payment of US\$ 75,000 to Basson to pay landing fees, fuel and bribes. This document was made available to the TRC and public during the TRC's hearing into chemical and biological warfare, Cape Town, June 1999.
- ⁷⁸¹ *Ibid.*
- ⁷⁸² Claim made by Adv. Cilliers in Basson's defence. Knobel claimed during his testimony in the trial that Basson made this trip to sort out the problems with a deal in Croatia for the purchase of drugs. Testimony of Gen. D.P. Knobel, op. cit. note 109, 15 November 1999.

- ⁷⁸³ Testimony of Gen. D.P. Knobel in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 15 November 1999, as reported in the daily trial report prepared by Marlène Burger.
- ⁷⁸⁴ *Borgaansoek van Dr. Wouter Basson in die Streekhof vir die Streekafdeling van Noord-Transvaal gehou in Pretoria* [Bail application of Dr Wouter Basson in the Regional Court of the Northern Transvaal Regional Division held in Pretoria], Vol 8. 3 November 1997, p. 360.
- ⁷⁸⁵ Testimony of Christopher Marlow in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 5 February 2001, as reported in the daily trial report prepared by Marlène Burger.
- ⁷⁸⁶ Adv. Jaap Cilliers, during the cross examination of Samuel Bosch in *The State vs Wouter Basson*.
- ⁷⁸⁷ Testimony of Charles Van Remoortere, *op. cit.* note 142, 11-13 September 2000.
- ⁷⁸⁸ Testimony of Roelf Louw, *op. cit.* note 379, 23 February 2001.
- ⁷⁸⁹ R. Louw, *Verslag: Buitelandse Besoek Kmdt R. Louw (H Leer/D PROJ/UG/302/6/A576)* [Report: Overseas Visit Commandant R Louw], 5 August 1988, p. 1. This document was made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁷⁹⁰ S. Brummer, "How Ehlers sold arms to the Hutus", *Mail and Guardian*, 15 November 1996. Joost Hilterman, "Post-Mortem on the International Commission of Inquiry (Rwanda)", Human Rights Watch Arms Project published in the *Bulletin of Concerned Africa Scholars*, http://www.iansa.org/documents/research/res_archive/r19.htm.
- ⁷⁹¹ Electronic communication between Chandré Gould and Jan Lourens, 14 February 2001.
- ⁷⁹² *Ibid.*
- ⁷⁹³ *Ibid.*
- ⁷⁹⁴ Telephonic discussion between Chandré Gould and André Immelman, 16 February 2001. The contents of this discussion has been confirmed subsequently with the authors.
- ⁷⁹⁵ *Ibid.*
- ⁷⁹⁶ Testimony of Christopher Marlow, *op. cit.* note 785, 2-6 February 2001. Testimony of Sol Pienaar in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 14 February 2001, as reported in the daily trial report prepared by Marlène Burger.
- ⁷⁹⁷ Testimony of Christopher Marlow, *op. cit.* note 785, 2 February 2001.
- ⁷⁹⁸ Testimony of Sol Pienaar, *op. cit.* note 796, 14 February 2001.

- 799 Testimony of Cobus Engelbrecht in The State vs Wouter Basson, South African High Court, Transvaal Division, 13 February 2001, as reported in the daily trial report prepared by Marlène Burger.
- 800 Chandré Gould telephonic interview with former United States Ambassador Princeton Lyman, 14 June 2001.
- 801 Ibid.
- 802 Ibid.
- 803 Ibid.
- 804 Knobel, *op. cit.* note 573.
- 805 Ibid.
- 806 “The South African CBW Programme”, undated document. This document was made available to the public during the TRC hearing into chemical and biological warfare in June 1998. (TRC document number 25.)
- 807 Electronic communication between Chandré Gould and Julian Perry Robinson, 12 February 2001.
- 808 Lyman, *op. cit.* note 800, 14 June 2001.
- 809 Ibid.
- 810 Ibid.
- 811 On 1 April 1995, Graham Pearson’s position as Director-General of the United Kingdom Defence Ministry’s Chemical and Biological Defence Establishment was abolished as part of a reorganization which removed the autonomy of the CBDE, folding the CBDE into a new super-agency, DERA. Pearson thereupon spent the last few months of his pre-retirement career as an Assistant Chief Scientific Advisor to the Defence Secretary.
- 812 Chandré Gould interview of Graham Pearson, Brighton, United Kingdom, 31 August 2000.
- 813 Lyman, *op. cit.* note 800, 14 June 2001.
- 814 Confidence Building Measure F, Declaration of past activities in offensive and/or defensive research and development programmes, South African submission to the BTWC, 1995.
- 815 There was no independent verification that the agents were destroyed.
- 816 Goosen, *op. cit.* note 136, 18 January 2001.
- 817 Odendaal, *op. cit.* note 264, 1 December 2000.
- 818 Basson and Knobel, *op. cit.* note 107. Ben Steyn, Bevestiging Notas: Voorligting aan die Minister van Verdediging oor die verloop en huidige status Projekte Coast en Jota te George op 7 Jan 1993 (GG/UG/302/6/J1282/5) [Confirmatory Notes: Presentation to the Minister of

- Defence about the course and current status of Projects Coast and Jota in George on 7 January 1993].
- 819 Ibid.
- 820 Convention on the Prohibition of the Development, Production, Stockpiling and use of Chemical Weapons and on their Destruction, Part IV, Section C: Destruction, *South African Government Gazette*, 2 May 1997, p. 72.
- 821 Notule van die vergadering van die beheerkomitee van Projek Jota gehou op 29 Jan 1993 in die HF Verwoerd gebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on 29 January 1993 in the HF Verwoerd Building, Cape Town], 29 January 1993.
- 822 Gen. D.P. Knobel, Bevestiging Notas: Voorligting aan die Minister van Verdediging oor die verloop en huidige status Projekte Coast en Jota te George op 7 Jan 1993 (GG/UG/302/6/J1282/5) [Confirmatory Notes: Presentation to the Minister of Defence about the course and current status of Projects Coast and Jota in George on 7 January 1993].
- 823 J.G. De Bruyn, op. cit. note 497, 30 March 1993.
- 824 Chandré Gould conversation with Milton Leitenberg, Pretoria, 30 October 2000.
- 825 Notule van die vergadering van die beheerkomitee van Projek Jota gehou op 29 Jan 1993 in die HF Verwoerd gebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on 29 January 1993 in the HF Verwoerd Building, Cape Town], 29 January 1993.
- 826 De Bruyn, op. cit. note 497, 30 March 1993.
- 827 Affidavit of Heinrich Frederick Strauss, a Brigadier South African Police at the Forensic Laboratory, 9 June 1993.
- 828 Judgement in *The State vs Wouter Basson*, 11 April 2002, paragraph 2131, points 33-39.
- 829 Testimonies of Steven Beukes and André Koch op. cit. note 471, 29 October 1999.
- 830 Testimony of Dr J. Koekemoer in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 26 February 2001, as reported in the daily trial report prepared by Marlène Burger.
- 831 Ibid.
- 832 Correspondence from Philip Mijburgh to Wouter Basson, "Offer for the manufacture of Baxil", 30 July 1992, document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.

- ⁸³³ D.P. Knobel, op. cit. note 483, 7 August 1992. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁸³⁴ Knobel, op. cit. note 467.
- ⁸³⁵ Ibid. and Gen. D.P. Knobel, op. cit. note 207.
- ⁸³⁶ Ibid. "Tans is daar in voorraad by die SAGD die volgende spesialis chemikalië wat in die 1993/1994 FJ verwerk sal word vir die bepaalde produkte: (a) 1000kg produk B; (b) 500kg produk M; (c) 30kg produk C."
- ⁸³⁷ Knobel, op. cit. note 467.
- ⁸³⁸ Notule van die vergadering van die beheerkomitee van Projek Jota gehou op 29 Jan 1993 in die HF Verwoerd gebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on 29 January 1993 in the HF Verwoerd Building, Cape Town], 29 January 1993.
- ⁸³⁹ De Bruyn, op. cit. note 497, 30 March 1993.
- ⁸⁴⁰ Knobel, op. cit., undated document.
- ⁸⁴¹ Affidavit of Stephen Beukes, handed to the TRC at the TRC Hearing into chemical and biological warfare, Cape Town, 1998.
- ⁸⁴² Knobel, op. cit., undated document.
- ⁸⁴³ Affidavit of Brig. H.F. Strauss, South African Police Forensic Laboratory, 9 June 1993.
- ⁸⁴⁴ Notule van die vergadering van die Beheerkomitee van Projek Jota gehou op 24 Januarie 1994 in die kantoor van HSAW (GG/UG/302/6/J282) [Minutes of a meeting of the Control Committee of Project Jota held on 24 January 1994 in the office of the Chief of the South African Defence Force], 24 January 1994.
- ⁸⁴⁵ Wouter Basson, Afskryfwaardes [Write-off values], 1 February 1994. Document made available to the TRC and public during the TRC hearing into chemical and biological warfare, Cape Town, June 1998.
- ⁸⁴⁶ Correspondence from Viljoen French and Coter on behalf of J. Brandt to John Truter, Sefmed Information Systems, 18 February 1994.
- ⁸⁴⁷ Ben Steyn, Voordrag aan die Beheerkomitee van Projek Jota oor die toekomstige bestuur van Chemies-Biologiese en Stralings Beskerming en Verdediging in die SANW (GG/V/306/3) [Presentation to the Controlling Committee of Project Jota about the management of Chemical-Biological and Nuclear Protection and Defence in the South African National Defence Force], 9 January 1995.
- ⁸⁴⁸ Notule van die Beheerkomitee van Projek Jota wat gehou is op 29 Maart 1994 by die Kantoor van HSAW (GG/UG/302/6/J1282)

- [Minutes of the Control Committee of Project Jota held on 29 March 1994 in the Office of the Chief of the South African Defence Force], 29 March 1994.
- 849 Charges 25-28 in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 1999.
- 850 J.P. Pretorius, *Verlangde inligting en verklarings: Chemiese Biologiese Oorlogvoeringondersoek: Dr. D'Oliveira Spesiale Ondersoekspan: Navraag Nommer 276/96* [Information and Statements required: Chemical and Biological Warfare Investigation: Dr D'Oliviera Special Investigating Team: Query Number 276/96], 12 May 1997.
- 851 Lt.-Gen. Hechter, *Verlangde Inligting en Verklarings: Chemiese Biologiese Oorlogvoeringsondersoek: Dr D'Oliviera Spesiale Ondersoekspan: Navraag Nommer 276/96* [Required Information and statements: Chemical Biological Warfare Investigation: Dr. D'Oliviera Special Investigating Team: Query Number 276/96], 27 May 1999.
- 852 Wouter Basson and D.P. Knobel, *Toestemming vir vernietiging van Projekdokumentasie: Projek Coast (GG/UG/302/6/COAST/5/1)* [Approval for destruction of Project documentation: Project Coast], 21 November 1989.
- 853 *Ibid.*
- 854 *Ibid.*
- 855 Testimony of Philip Mijburgh as reflected in the transcript of the TRC Hearings into Chemical and Biological Warfare, Cape Town, 7 July 1998.
- 856 *Ibid.*
- 857 Testimony of Gen. D.P. Knobel, *op. cit.* note 127, 18 June 1998.
- 858 Testimony of Philip Mijburgh, *op. cit.* note 855.
- 859 *Ibid.*
- 860 Testimony of Col. Ben Steyn in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 6 September 2000, as reported in the daily trial report prepared by Marlène Burger.
- 861 Testimony of Gen. D.P. Knobel, *op. cit.* note 127, 8 July 1998.
- 862 *Notule van die vergadering van die Beheerkomitee van Projek Jota wat gehou is op 9 Januarie 1995 by die Kantoor van HNW (G/UG/302/6/J1282)* [Minutes of the meeting of the Control Committee of Project Jota held on the 9 January 1995 in the office of the Chief of the National Defence Force].
- 863 *Judgement in The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraphs 2042 and 2043.
- 864 Testimony of Grant Wentzel, *op. cit.* note 216, 27 October 1999.

- 865 Organochem was the company responsible for procurement activities for Delta G Scientific. Brandt had previously been involved in procurement for Armscor. He was arrested in the United States for attempting to export an ion implanter to East Germany.
- 866 Testimony of Grant Wentzel, *op. cit.* note 216, 27 and 28 October 1999.
- 867 *Ibid.*
- 868 *Ibid.*
- 869 *Ibid.*
- 870 Comments made by Adv. Jaap Cilliers during the cross-examination of Grant Wentzel *op. cit.* note 216, 27 and 28 October 1999.
- 871 Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2031, point 1.
- 872 The following documents were handed to the TRC by Gen. Knobel and made available to the public:
- Notule van die vergadering van die Beheerkomitee van Projek Jota gehou op 31 Maart 1993 in die HF Verwoerdgebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on the 31 March 1993 in the HF Verwoerd Building, Cape Town], 31 March 1993.
 - D.P. Knobel, A letter from the Surgeon-General to Philip Mijburgh dated 7 August 1992 headed: "Produksie van d-N,a-dimethylphenethylamine (baxil)" [Production of d-N,a-dimethylphenethylamine (baxil)], 7 August 1992.
 - A letter from Philip Mijburgh to Brig. Basson dated 30 July 1992 and headed: "Offer for the manufacture of 'Baxil'", 31 July 1992.
 - A letter dated 9 November 1992 from Gen. D.P. Knobel (Surgeon-General) headed: "Bevestiging van Ontvangs van Produkte Gelewer: Projek Coast/Jota" (HSF/UG/302/6/C119) [Confirmation of Receipt of Products Delivered: Project Coast/Jota], 9 November 1992.
 - J.G. De Bruyn, Sertifiseering tov die vernietiging van Chemiese produkte op 27 Januarie 1993 (AI/UG/302/6/C123-2) [Certification with regard to the destruction of Chemical Products on 27 January 1993], 30 March 1993.
 - Affidavit from Heinrich Frederick Strauss, a Brigadier South African Police at the Forensic Laboratory, 9 June 1993.
 - A further affidavit from Heinrich Frederick Strauss. Undated.
 - W. Basson, Afskryfwaardes [Write-off values], 1 February 1994.

- B. Raubenheimer, Vernietiging van Grondstowwe en Produkte: Projek Jota (GG/UG/302/6/J1282) [Destruction of Raw materials and Products: Project Jota], January 1995.
- Notule van die vergadering van die beheerkomitee van Projek Jota gehou op 29 Jan 1993 in die HF Verwoerd gebou, Kaapstad (GG/UG/302/6/J1282/5) [Minutes of the meeting of the Control Committee of Project Jota held on 29 January 1993 in the HF Verwoerd Building, Cape Town].
- J.P. Pretorius, Verlangde inligting en verklarings: Chemiese Biologiese Oorlogvoeringondersoek: Dr. D'Oliveira Spesiale Ondersoekspan: Navraag Nommer 276/96 [Information and Statements required: Chemical and Biological Warfare], 12 May 1997.
- Lt.-Gen. Hechter, Verlangde Inligting en Verklarings: Chemiese Biologiese Oorlogvoeringsondersoek: Dr D'Oliviera Spesiale Ondersoekspan: Navraag Nommer 276/96 [Required Information and statements: Chemical Biological Warfare Investigation: Dr. D'Oliviera Special Investigating Team: Query Number 276/96], 27 May 1999.
- D.P. Knobel, Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te George op 7 Jan 1993 (GG/UG/302/6/J1282/5) [Presentation to the Minister of Defence about the course and current status of Projects Coast and Jota in George on 7 January 1993].
- D.P. Knobel, Kronologiese verloop van gebeure tov Kroatiese Transaksies (GG/UG/302/6/J1282) [Chronology of incidents with regard to Croatian Transactions].
- Statement by Jürg Jacomet addressed to Gen. D.P. Knobel, 12 May 1993.
- Affidavit of Jürg Jacomet, signed by the Director of the South African Embassy in Bonn on 13 August 1994.
- D.P. Knobel, Verslag oor die verloop en huidige stand van Projek Coast/Jota met Spesiale verwysing na die posisie van Brig. W. Basson (GG/UG/302/6/J1282/5) [Report about the course and current status of Project Coast/Jota with Special Reference to the position of Brig. W. Basson], 24 September 1993.
- Viljoen, French and Coter attorneys, Bacsil Project, 1999.
- A letter from Viljoen French & Coter on behalf of J. Brandt and addressed to John Truter, Sefmed Information Systems, 18 February 1994.

- W. Basson, Eis van Mnr. Brandt vir Tegnologie verskaf deur hom aan Projek Jota [Claim from Mr. Brandt for Technology supplied by him to Project Jota], 24 November 1994.
- W. Basson, Projek Coast: Voorligting aan Staatspresident (GG/UG/302/6/C123/BK) [Project Coast: Briefing of the State President], 26 March 1990.
- Notule van 'n Spesiale KBK Vergadering wat gehou is op 2 Desember 1994 in die kantoor van HNW (GG/UG/302/6/J1282) [Minutes of a Special Co-ordinating Control Committee held on 2 December 1994 in the office of the Chief of the Defence Force], 2 December 1994.
- B. Steyn, Voordrag aan die Beheerkomitee van Projek Jota oor die toekomstige bestuur van Chemies-Biologiese en Stralings Beskerming en Verdediging in die SANW (GG/V/306/3) [Presentation to the Controlling Committee of Project Jota about the management of Chemical-Biological and Nuclear Protection and Defence in the South African National Defence Force], 9 January 1995.
- Notule van die Beheerkomitee van Projek Jota wat gehou is op 29 Maart 1994 by die Kantoor van HSAW (GG/UG/302/6/J1282) [Minutes of the Co-ordinating Management Committee of Project Jota held on 29 March 1994 in the Office of the Chief of the South African Defence Force].
- Notule van die vergadering van die Beheerkomitee van Projek Jota gehou op 24 Januarie 1994 in die kantoor van HSAW (GG/UG/302/6/J282) [Minutes of a meeting of the Control Committee of Project Jota held on 24 January 1994 in the office of the Chief of the South African Defence Force].
- Notule van die vergadering van die Beheerkomitee van Projek Jota wat gehou is op 9 Januarie 1995 by die Kantoor van HNW (G/UG/302/6/J1282) [Minutes of the meeting of the Control Committee of Project Jota held on the 9 January 1995 in the office of the Chief of the National Defence Force].
- P. Mijburgh, Claim for expenses during travel in support of Brig. W. Basson, 29 December 1994.
- P. Mijburgh, Temporary cessation of Project T101/94, 28 December 1994.
- Verkleinde Verdedigingsbevelraad: Notule van Vergadering gehou om 07h30 op 25 Oktober 1990 te Samik (HS Plan/DP/302/6/COAST and HS PLAN/Dp/302/6/KEYBOARD) [Reduced Defence Council: Minutes of Meeting held at 07h30 on 25 October 1990 at Samik].

- P. Steyn, Staff paper prepared for the Steyn Commission on alleged dangerous activities of SADF components, December 1992.
 - D.P. Knobel, Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te George op 7 Jan 1993 (GG/UG/302/6/J1282/5) [Presentation to the Minister of Defence about the course and current status of Projects Coast and Jota in George on 7 January 1993].
 - J. Swanepoel, Ondersoek kragtens Artikel 5 van die Wet op die Ondersoek van Erenstige Ekonomiese Misdrywe, 117 van 1991: Krygkor, met spesifieke verwysing na Brigadier W. Basson [Investigation in terms of Article 5 of the Act regarding the Investigation of Serious Economic Offences, 117 of 1991: Armscor, with specific reference to Brig. W. Basson], 8 December 1992.
 - D.P. Knobel, Ondersoek kragtens Artikel 5 van die Wet op die Ondersoek van Erenstige Ekonomiese Misdrywe, 117 van 1991: Krygkor, met spesifieke verwysing na Brigadier W. Basson [Investigation in terms of Article 5 of the Act on the Investigation of Serious Economic Offences, 117 of 1991: Armscor, with Special Reference to Brig. W. Basson], 11 January 1992.
 - B. Steyn, Voorligting aan die Minister van Verdediging oor die verloop en huidige status van Projekte Coast en Jota te Pretoria op 10/8/93 [Presentation to the Minister of Defence about the course and current status of Projects Coast and Jota in Pretoria on 10/8/93], 10 August 1993.
- 873 The transcript of that hearing is now available on the internet at www.fxj.org.za.
- 874 Minutes of a workshop organised by the Centre for Conflict Resolution which brought together scientists who had worked for Project Coast and leading South African scientists, Pretoria, 4 August, 2001.
- 875 Based on interviews with all the scientists involved.
- 876 At a meeting of the TRC investigators and government officials, including representatives from the Department of Foreign Affairs.
- 877 Extract from the TRC Final Report; Vol 2, Chapter 6, Special Investigation into Project Coast: South Africa's Chemical and Biological Warfare Programme, 1999.
- 878 The transcript of the subsequent bail application hearing which dealt with the fraud charges against Basson is still inaccessible to the public.
- 879 Allegedly procured by David Chu in Switzerland.
- 880 Dropped charges included, Charge 55: conspiracy to murder Gibson Mondlane in Mozambique; Charge 58: conspiracy to murder Enoch

- Dlamini in Swaziland; Charge 46: conspiracy to murder an unknown man in Ovamboland, Namibia; Charge 61: conspiracy to murder SWAPO members in a transit camp by contaminating the water with cholera, Charge 31: conspiracy to murder SWAPO members and own forces that posed a security threat; Charge 54: conspiracy to murder Ronnie Kasrils and Pallo Jordan in London.
- ⁸⁸¹ Extraordinary Official Gazette for South West Africa, No. 5725.
- ⁸⁸² The amended Act was passed in 1990 as the Administrator-General Government Notice, No. 16 of 1990.
- ⁸⁸³ Legal argument in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 October 1999, as reported in the daily trial report prepared by Marlène Burger.
- ⁸⁸⁴ Testimony of Gen. D.P. Knobel, *op. cit.* note 560, 15-30 November 1999.
- ⁸⁸⁵ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraphs 2092, 2131 point 30.
- ⁸⁸⁶ *Ibid.*, paragraphs 2089 and 2090.
- ⁸⁸⁷ Ruling of Judge Willie Hartzenberg, 16 February 2000, as reported in the daily trial report prepared by Marlène Burger.
- ⁸⁸⁸ *Ibid.*
- ⁸⁸⁹ *Ibid.*
- ⁸⁹⁰ *Ibid.*
- ⁸⁹¹ *Ibid.*
- ⁸⁹² Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 1978.
- ⁸⁹³ Testimony of Charles Van Remoortere, *op. cit.* note 142, 11-13 September and 28 September 2000. Testimony of Bernard Zimmer, *op. cit.* note 365, 21-25 August and 13 December 2000.
- ⁸⁹⁴ Testimony of David and Jane Webster in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 10-23 October 2000, as reported in the daily trial report prepared by Marlène Burger.
- ⁸⁹⁵ Testimony of Dr David Chu in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 29 January-1 February 2001, as reported in the daily trial report prepared by Marlène Burger.
- ⁸⁹⁶ Judgement in *The State vs Wouter Basson*, South African High Court, Transvaal Division, 11 April 2002, paragraph 2092.
- ⁸⁹⁷ Testimony of Wouter Basson, *op. cit.* note 138, 24 July 2001.
- ⁸⁹⁸ *Ibid.*, 23 July 2001.
- ⁸⁹⁹ *Ibid.*, 31 July 2001.

⁹⁰⁰ Jean Philippe Ceppi and Philippe Burkardt interview with Dieter Dreier, Basel, Switzerland, 25 September 2001.

⁹⁰¹ Testimony of Wouter Basson, *op. cit.* note 138, 31 July 2001.

⁹⁰² Testimony of Wouter Basson, *op. cit.* note 138, 26 July 2001.