

# South Africa's Project Coast: “Death Squads,” Covert State- Sponsored Poisonings, and the Dangers of CBW Proliferation

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## INTRODUCTION

On 11 April 2002, approximately seven months after the devastating terrorist attack launched by al-Qāida operatives on United States soil, a South African judge acquitted Dr. Wouter Basson, the Project Officer for the secret South African chemical and biological weapons (CBW) program, Project Coast (later Project Jota), of all that remained of the 46 criminal charges originally filed against him by state prosecutors. Several years' worth of controversial, high-profile hearings and judicial inquiries thereby ended with a whimper rather than a bang, to the astonishment of most

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observers.<sup>1</sup> Unfortunately, the judge's decision not only ignored masses of evidence that appeared to link Basson to kidnappings and assassinations of so-called "enemies of the state," but it also left many crucial questions about the possible proliferation of dangerous Project Coast materials and know-how to various unsavory regimes and non-state actors unanswered.

## **HISTORY OF THE SOUTH AFRICAN CBW PROGRAM**

### **Chemical Warfare Activities in South Africa before Project Coast**

South Africa's chemical industry was established at the end of the nineteenth century, but the country's leaders did not become aware of the importance of CW until they observed the battlefield effects of the chemical agents deployed by the Germans and other parties during World War I. The potential future importance of CW was further recognized when the Italians carried out mustard agent attacks in Ethiopia in 1936, and soon after the outbreak of the Second World War the Jan Smuts government agreed to assist the British Ministry of Supply in producing phosgene and mustard. These agents were manufactured by South Africa at the Klipfontein factory near Pretoria and the Firgrove factory in the Cape Province, which employed a total of 1,697 persons and were capable of producing 250 tons of different chemical substances each month. In July 1945 both of these factories were shut down—or, according to other accounts, redirected to the production of insecticides—and their stocks of chemicals were destroyed. Although the documentation concerning these projects was retained, for the next fifteen years there is no evidence that South Africa was involved in the production of CW agents.<sup>2</sup>

In 1960 a company named Mechem was established as the Chemical Defence Unit (CDU) of the Council for Scientific and Industrial Research (CSIR), and thereafter operated under the direction of Dr. J. P. De Villiers and the bureaucratic aegis of the Department of Trade and Industry. Although it was contracted solely by the South African Defence Force (SADF) to investigate chemical compounds and monitor the CW and BW threat to South Africa, the CSIR's policy of not working with lethal agents restricted Mechem's production to compounds such as teargas and CX (phosgene oxide) powder used for tracking. CS was then being manufactured at African Explosives and Chemical Industries (AECI) for the state Armaments Corporation of South Africa (ARMSCOR), after which it was added to pyrotechnic smoke munitions, grenades, and cartridges and at times used to suppress riots; and during this period three other chemicals were produced and tested at Mechem for use as Riot Control Agents: CN, DM, and CR. In 1961, a Nuclear Biological and Chemical (NBC) Defence School was established in Cape Town, but until the late 1980s the training there was restricted to the use of gas masks and tear gas. Hence no large-scale production of CW agents was undertaken.<sup>3</sup>

However, during this period De Villiers prepared several reports which revealed that he and some of his colleagues were developing a growing interest in the potential value of offensive CW usage. In one undated document, he argued that although South Africa was not threatened by CW attack from abroad, chemical weapons could nonetheless be useful for the SADF. In a 12 July 1977 report, he expanded upon that view by noting 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.”<sup>4</sup> In a collective 1977 report on CBW commissioned by the South African government, he declared that members of the family of lethal fluoroacetates, which are stable, odorless, and colorless, easily made, commercially available as rodenticides, and have delayed symptoms, were especially well-suited for use by enemy “terrorists and saboteurs” to poison water supplies. This statement takes on a somewhat more ominous connotation when one considers that these very tactics were then being employed by the Rhodesian security forces to fight guerrillas, something De Villiers may have been aware of. Finally, in his chapter on CBW from a 1970s SADF manual, he suggested that it might be advantageous to use lethal chemical agents against internal enemies, since in his view this was not explicitly forbidden by the 1925 Geneva Protocols.

Moreover, the CDU proved to be an ideal recruiting ground for the SADF when the need for more specialized CW services was recognized. In the early 1970s Dr. Jan Coetzee, head of CDU’s Department of Special Equipment, was personally recruited by SADF chief General Magnus Malan to head the Defence Research Institute, after which Coetzee worked out of ARMSCOR’s premises for a time. He was instructed to develop special counterintelligence equipment for the Special Operations Group (SOG) of the SADF, the forerunner of the Special Forces (SF). Eventually, procurement problems caused Prime Minister P. W. Botha to personally authorize the establishment of a new ARMSCOR subsidiary headed by Coetzee, Elektroniks, Meganies, Landbou en Chemies (EMLC: Electronic, Mechanical, Agricultural, and Chemical), which in August 1980 moved to SF headquarters at Speskop.<sup>5</sup> In the mid-1980s, the chemical component of EMLC was transferred to the new Midrand facility of Delta G Scientific.

### **Biological Warfare Activities in South Africa Before Project Coast**

There is no evidence that South Africa developed or produced BW agents of any type prior to the establishment of Project Coast, but by the early 1980s advanced research on many virulent biological pathogens had already been carried out for decades at several of the nation’s leading medical, veterinary, and agricultural facilities.<sup>6</sup> This is hardly surprising, given the large number of diseases endemic to the country and the substantial role played by diverse animals and plants in South Africa’s economy. Apart from clinical work performed at hospitals and animal facilities to treat or quarantine disease-stricken persons

and animals, research on various lethal bacteria was carried out at the Onderstepoort Veterinary Institute and the H. A. Grové Research Centre at the University of Pretoria, whereas dangerous viruses were studied at the National Institute for Virology, the only facility in South Africa that contained a P-4 safety level biological laboratory.<sup>7</sup> Some of the scientists employed at these facilities were later recruited to work at the principal Coast BW facility, Roodplaat Research Laboratories (RRL), and a few of these men later testified that they had earlier done contract research for the SADF. Perhaps the most noteworthy case is that of Dr. Daan Goosen, who was working on a snake venom project for the South African Army at the H. A. Grové Centre when he was approached by Basson in 1983 and asked to turn over some mamba toxin so that a security threat could be eliminated.<sup>8</sup>

In addition to the legitimate research conducted in South Africa to facilitate the management of natural outbreaks of diseases caused by biological agents, as noted above De Villiers' Chemical Defence Unit was charged with monitoring the BW as well as the CW threat to South Africa. Although its director had been one of the first government scientists to cultivate a keen interest in the offensive potential of CW agents, there are no indications that the CDU carried out research on BW agents.<sup>9</sup>

### **The Rhodesian CBW Program and its Influence on South Africa**

The Rhodesian Civil War was not the first conflict in Africa in which poisons were used as weapons of war, since as early as the 1960s the Portuguese army reportedly deployed defoliants and napalm, poisoned wells and waterholes, and drugged prisoners and threw them out of airplanes in their efforts to counter the actions of Angolan (and possibly also Mozambican) guerrillas.<sup>10</sup> However, the Rhodesian security forces used chemical and biological agents in some novel ways, and exerted a much more direct influence on their South African counterparts.

Faced with a deteriorating security situation as the 1970s wore on, Rhodesian authorities resorted to increasingly extreme counterinsurgency measures to resist nationalist guerrillas, including "pseudo-operations," psychological warfare, covert executions, and the deployment of ingenious booby traps and toxic substances.<sup>11</sup> On the basis of insider accounts, there can be no doubt whatsoever that the Rhodesians employed:

1. poisonous chemicals to impregnate clothing, canned food, drinks, and aspirin; and
2. lethal biological agents such as cholera bacteria and anthrax bacteria to contaminate water supplies and farmland.<sup>12</sup>

Although one former member of the Special Branch of the Rhodesian national police—a force that was still designated, quaintly, as the British South

Africa Police (BSAP)—claimed that he and his colleagues were aware of the use of poisons as early as 1973, the first clear evidence of this dates from 1975 or 1976, when the Rhodesian Central Intelligence Organisation (CIO) apparently asked doctors and chemists from the University of Rhodesia to identify and test a range of chemical and biological agents that could be used as a “fear factor” in the war against nationalist guerrillas.<sup>13</sup> Professor Robert Symington, head of the clinical program in the university’s Anatomy Department, then recruited several colleagues and students to carry out this research.<sup>14</sup>

According to former Officer Commanding Counter Terrorist Operations Michael J. McGuinness, the most senior Special Branch officer seconded to the CIO and the man who oversaw the CW program and other covert operations launched from the Selous Scouts fort at Bindura, 25-gallon drums of foul-smelling liquid were delivered to the base a dozen or so times in 1977. The chemicals were then poured into large sheets of tin and dried in the sun. When the liquid had dried, the leftover flakes were scooped up and pounded in a mortar with a pestle. The resulting powder was then brushed onto stocks of denim clothing favored by the guerrillas, mixed into processed meat such as bully beef before being repacked in new cans, or injected into bottles of alcohol with a micro-needle.<sup>15</sup> Moreover, several prisoners were forcibly brought to the fort and allegedly used as “human guinea pigs” to test the effects of the poisons, after which their bodies were secretly disposed of. Other accounts indicate that denim clothing was also brought to the André Rabie barracks of the Selous Scouts, where it was soaked in vats of odorless and colorless liquid chemicals.<sup>16</sup> The distribution of the contaminated items was generally organized by the Projects Section of the Special Branch and delivered by uniformed policemen to agents and intermediaries willing to sell them to the guerrillas, but some bottles of poisoned alcohol were instead disseminated by the Selous Scouts.<sup>17</sup> Secret Special Branch documents made available by Peter Stiff confirm the distribution of various poisoned items, and reveal that at least 800 people died after absorbing the poison through their soft body tissues. Indeed, the CW program was terminated by police commissioner Peter Allum after the Special Branch commander learned of the deaths of innocent rural villagers to whom some of the poisoned clothes had been sold by unscrupulous local agents, agents who had been recruited by the Selous Scouts and Special Branch and been paid a 1000 Zimbabwean dollar bonus for each “confirmed” guerrilla death.<sup>18</sup>

The Rhodesians also made several attempts to disseminate lethal BW agents, in particular *Vibrio cholerae* and *Bacillus anthracis*. McGuinness claimed that two unsuccessful efforts were made by the Selous Scouts to contaminate the Ruhena River in northeastern Rhodesia with cholera bacteria. A former Rhodesian intelligence officer who remained in Zimbabwe after the country’s independence stated that many other attempts to deploy cholera bacteria were made by the Rhodesian security forces, especially in order to pollute water sources close to guerrilla camps inside neighboring Mozambique. He

admitted, however, that “this tactic was said to be of very limited use due to the quick dispersal of the bacteria.” As for anthrax, this same source said that anthrax spores were “used in an experimental role in the Gutu, Chilimanzi, Masvingo, and Mberengwa areas . . . to kill off the cattle of tribesmen,” harmful incidents that were then attributed by Rhodesian Army psychological operations officers to infiltrating guerrillas. For his part, McGuinness said he was surprised to learn from some of his colleagues that anthrax bacteria had been disseminated on at least one occasion. The Selous Scouts had originally been asked to carry out the task, but their commander Lieutenant-Colonel Ron Reid-Daly had refused because he thought it would be too risky for his men. In the end, members of the Rhodesian Special Air Service (SAS) regiment delivered the anthrax bacteria by dropping it from an aircraft near Plumtree, on the Botswana border.<sup>19</sup> Even today, anthrax is only endemic to Matabeleland, where Plumtree is located. For this and other reasons, Dr. Meryl Nass’ argument that the Zimbabwean “anthrax epizootic” of 1979 and 1980 might also be attributable to intentional human dissemination must at least be seriously considered.<sup>20</sup> Finally, in 1979 the CIO allegedly activated a plan to assassinate either Zimbabwe African National Union (ZANU) leader Robert Mugabe or Zimbabwe African Peoples Union (ZAPU) leader Joshua Nkomo in London, and then recruited an expatriate former British SAS member nicknamed “Taffy” to do the job. After performing successful tests on dogs, he opted to use a rifle to shoot Mugabe with a dum dum bullet into which ricin toxin was inserted, but the operation was aborted at the last minute.<sup>21</sup>

Many of the CW and BW tactics employed by the Rhodesian security services were later emulated by their South African counterparts. This is mainly attributable to two factors. First, operatives from the SADF, the Bureau of State Security (BOSS) and its National Intelligence Service (NIS) successor, and especially the South African Police (SAP) were sent to Rhodesia to acquire firsthand counterinsurgency experience, where some received direct training from special operations units such as the Selous Scouts or the SAS, possibly in exchange for helping train the Rhodesians in mine-laying and intelligence work.<sup>22</sup> In such a collaborative context, it is almost inconceivable that scuttlebutt about some of the covert Rhodesian CW and BW operations did not reach the ears of their South African guests. Moreover, there are indications that South African scientists, soldiers, and policemen participated directly in such operations. According to former African National Congress (ANC) guerrilla Jeremy Brickhill, South African forensic experts and intelligence personnel had access to the most secret Rhodesian bases and likely played some role in the development of that country’s CBW agents, including organophosphates, thallium, warfarin (an anticoagulant rodenticide), anthrax bacteria, and other unspecified bacteriological agents.<sup>23</sup> A Dutch anti-apartheid activist named Klaas de Jonge claimed that various “dirty tricks” poisoning operations were carried out in Rhodesia in the mid- to late 1970s under the rubric of “Operation Alcora,” a joint Portuguese, Rhodesian, and South

African effort. In the course of this operation, “sophisticated” chemical weapons developed at the SAP Forensic Sciences Laboratory on Visagie Street, which was at that time headed by Major-General Lothar Neethling, were allegedly deployed.<sup>24</sup> Also, a former Rhodesian Army colonel named Lionel Dyck insisted that members of South African military intelligence were directly involved in the contamination of rivers with cholera bacteria during the Rhodesian civil war.<sup>25</sup> Although these specific statements have not yet been substantiated, a secret August 1977 Special Branch report may lend them some credence by noting that “there is a shortage of necessary ingredients that are to be obtained from South Africa within the next two weeks.”<sup>26</sup>

Second, on the eve of Zimbabwe’s independence, many frustrated and soon-to-be-unemployed Rhodesian special operations personnel left their former homeland and moved to South Africa to continue their fight against “terrorists.” Under the rubric of “Operation Winter,” Rhodesian special force assets may have been covertly transferred en masse across the border. This operation was allegedly carried out with the connivance of British government ministers in Rhodesia, and effectuated in part by British and American transport planes. Among these assets were members of the Selous Scouts, the SAS, and the CIO, as well as their black collaborators and “the poisoners and their poisons.”<sup>27</sup> Whether or not such a mass covert transfer of assets took place, there is no doubt that many former Rhodesian special operators or scientists—e.g., Fritz Loots, Philip Morgan, and perhaps even Robert Symington—were subsequently incorporated directly into compatible South African units or institutions.<sup>28</sup> Hence there seem to have been various intimate, organic links between the Rhodesian and South African CBW programs, even though the precise role that Rhodesians may have played in the scientific or operational orientation of Project Coast remains to be clarified.

## The Origins and Purposes of Project Coast

As the 1970s wore on, a few South African officials expressed more and more interest in the development of a CBW program. Other than the De Villiers reports cited above, which generally concluded that South Africa was not directly threatened by a CBW attack but that it might be useful for the nation to develop CW agents, few if any contemporary SADF documents provide a clear and explicit CBW threat analysis during the period prior to the establishment of Project Coast. Although it is likely that the looming collapse of Rhodesia and the escalation of the Angolan conflict between 1978 and 1980 altered SADF threat perceptions, most of the reports concerning this subject were prepared much later by Wouter Basson and his associates in order to justify the program’s initiation retrospectively. The official line was that the program was created entirely for defensive purposes, since Marxist Movimento Popular de Libertação de Angola (MPLA: Popular Movement for the Liberation of Angola) and Cuban forces in Angola were reportedly equipped for and perhaps planning to use—if they were not already

using—chemical agents against the SADF.<sup>29</sup> It is true that Soviet-made vehicles used by Cuban forces that were captured in Angola were outfitted with chemical air filters, CW antidotes, and gas masks, and that rumors abounded about supposed MPLA use of CW agents against the troops of South Africa's allies, the União Nacional para a Independência Total de Angola (UNITA: National Union for the Total Independence of Angola), but this equipment was standard issue and the allegations about communist CW usage were never actually confirmed. Nevertheless, this provided the rationale, whether militarily justifiable or merely convenient, for the establishment of Coast.

If Project Coast had really been initiated primarily in order to provide defensive CBW protection to SADF troops and their allies, all along its primary focus should have been on the purchase or manufacture of protective clothing and on the training of fighting troops to defend against CBW attacks. Yet this was never the case. According to Dr. Brian Davey, the scientist responsible for developing these defensive measures, even these most basic steps only began to be taken in 1986, and it was not until 1988 that the actual training of SADF troops to respond to CW commenced. This assessment is confirmed by several soldiers who underwent the training. Willem Steenkamp said that at an SADF camp he and other soldiers attended lectures and tried on NBC suits, which almost immediately caused them to faint in the hot African sun, but was told afterwards that the lecture was merely a propaganda exercise designed to convince their Angolan enemies that the SADF was prepared for a CW attack. According to Danie Du Toit, the CW protection courses were only offered to select groups, not the SADF in general. At the time of "Operation Modular" in Angola in 1987, he said there were no NBC suits available to SADF troops in the field. Instead, the troops were told that in the event of a CW attack they should dig a foxhole, crawl in, and cover themselves with their ponchos, a wholly inadequate response. Even specialized medical units only had a total of 10–20 NBC suits at their disposal.<sup>30</sup> This is all the more astonishing given that a succession of companies owned by bioengineer Jan Lourens had by then succeeded in designing and manufacturing some of the world's best protective CBW equipment and clothing, stocks of which were already in great demand overseas. This gear had been successfully tested in the field using actual CBW agents rather than simulants, yet virtually none of it was being supplied to South African troops or their allies operating in neighboring states.<sup>31</sup> As Chandré Gould and Peter Folb rightly emphasize, such a lackluster reaction suggests that the SADF did not take the purported communist CBW threat all that seriously.

Moreover, from the outset the South African CBW program also had offensive features and capabilities. This should come as no real surprise. The apartheid-era South African government viewed itself as the target of a "total onslaught" by Soviet-backed Marxist guerrillas in neighboring states and black nationalists at home, and to meet this all-encompassing "red-black danger" it was apparently willing to use almost any means at its disposal to defend itself.<sup>32</sup> It was in this highly-charged political and military context, which

precipitated a “bunker” or “laager” mentality, that Project Coast was secretly initiated in 1981 under the aegis of the SADF Special Forces (SF). In a top secret November 1989 military report prepared by Basson on the privatization of Project Coast, he explicitly acknowledged the many offensive dimensions of the program. Among other things, he said that it was designed “To conduct research with regard to basic aspects of chemical warfare (offensive). . . To conduct research with regard to basic aspects of biological warfare (offensive) . . . To conduct research with regard to covert as well as conventional [delivery] systems . . . To establish an industrial capacity with regard to the production of offensive and defensive CBW equipment . . . [and] To give operational and technical CBW support (offensive and defensive) . . .”.<sup>33</sup> Note that these particular statements directly contradict his public testimony before the Truth and Reconciliation Commission (TRC) and at his trial, during which he repeatedly stated that the project was defensive in orientation and denied that it had sponsored any offensive CBW actions. They also confirm the testimony of the many scientists who actually carried out research, testing, and production activities at the CW and BW facilities. Even though most of them had been recruited with the understanding that Coast was a defensive program, it soon became clear to them that it was in large part offensive.<sup>34</sup> Furthermore, there were various other covert SADF projects that focused exclusively on defensive CBW procurement and preparation, such as Project Academic, Project Galvanise, and Project Fargo.

In early 1981 Defence Minister Constand Viljoen, who was reportedly very concerned about the threat posed by potential Cuban use of CW, ordered Basson to travel abroad and covertly collect information about Western CBW programs that might be used as a model for South Africa's own program. Basson was also instructed to make contact with people who could provide him with information on East Bloc programs. To this end he embarked on an international fact-finding mission, and in May 1981 attended an international CBW conference in San Antonio, Texas, and visited the Army Chemical School in Taiwan. In August 1981, after Basson had reported back to the Defence Command Council, Viljoen allocated funds for the completion of a feasibility study on the establishment of a South African CBW program. Toward the end of 1981, Defence Minister Magnus Malan approved the idea and authorized the release of funding for such a program.<sup>35</sup> Thus was born Project Coast, for which Basson was at once appointed Project Officer.

At the time he was summoned by Viljoen and asked to gather CBW information, Wouter Basson was a brilliant young SADF medical officer specializing in internal medicine who was working at 1 Military Hospital in Pretoria. In March 1981 he was appointed as a specialist advisor at SADF headquarters and as Project Officer for Special Projects of the Army Surgeon-General, but was also seconded to SF headquarters. There he worked under the operational command of the Commanding Officer SF, who henceforth oversaw all of his military activities. One of his appointed tasks there was to head the Special Operations

(SO) unit of the South African Medical Services (SAMS), an elite medical team that provided health-related logistical support and hands-on medical treatment to SF, Parabat, SAP, and NIS elements operating clandestinely in the field.<sup>36</sup> Members of the SO themselves received specialized military training of the type generally reserved for special operations personnel, including parachute, diving, and survival training. In January 1985 this SO unit was officially renamed 7 Medical Battalion Group, though Basson remained its commander. Not coincidentally, most of the individuals who later held senior positions in the Coast-related SADF front companies and in affiliated private companies dependent upon SADF contracts had started out as trusted members of the SO unit of SAMS. This indicates, as Gould and Folb point out, that in general the entire project was “built on personal relationships and informal networks.”<sup>37</sup>

### **The Overall Organization and Command Structure of Project Coast**

The SADF originally asked ARMSCOR to assist them in developing the South African CBW program, but ARMSCOR officials—who already had exclusive control over the country’s nuclear program—refused to do so unless they were given full control. In the end the authorities decided to place the program solely under the control of the SADF. After returning from his travels overseas Basson had informed members of the Defence Command Council that foreign CBW programs utilized ostensibly “civilian” front companies to conduct all offensive R&D up to the point of actual weaponization. Although this claim was not entirely accurate, the SADF nonetheless decided to create new front companies rather than use its own components or the existing structures under its control.<sup>38</sup>

Project Coast, like the unspecified foreign CBW programs upon which it was supposedly modeled, included both a chemical weapons (CW) component and a biological weapons (BW) component. In contrast to the CBW programs in certain other countries, however, the chemical and biological components were not completely separate in South Africa. Not only did they both have the same official chain of command, the same Project Officer, and integrated secret funding mechanisms, but the actual testing of certain chemical agents was sometimes carried out at the principal BW facility, Roodeplaats Research Laboratories (RRL), rather than at the facilities responsible for CW. Likewise the primary CW facility, Delta G Scientific (Delta G), sometimes provided assistance with RRL’s biochemistry projects.<sup>39</sup> Both the CW and BW programs in South Africa consisted of one principal production facility and a variety of other facilities that, for administrative, security, or technical reasons, carried out specialized research, testing, or production tasks.

In theory, the apex of the official chain of command for both the CW and BW components of Project Coast was the President of the Republic himself

(P. W. Botha), who under the militarized National Security Management System (NSMS) established in August 1979 exercised his authority primarily through the State Security Council (SSC) rather than the Cabinet. Within this elaborate security-oriented and largely covert power structure, the SADF coordinated the activities of the various armed services (Army, Air Force, Navy, and—later—both SAMS and the SF) through the Defence Command Council.<sup>40</sup> However, although administratively subordinate to this latter body, the entity that officially managed Project Coast was known as the Co-ordinating Management Committee (CMC), which typically met two to four times per year and normally comprised the Army Surgeon-General (who served as its titular chair and was also the head of SAMS), the SADF chief, the Chief of Staff (COS) Intelligence, the COS Finance, representatives from ARMSCOR, personnel from the Auditor-General's office, and Project Officer Basson, who served as CMC secretary. Directly under the auspices of the CMC, three "work groups" were supposedly formed to deal with specialized matters on a regular basis. The Technical Work Group, which was headed by Basson and included a rotating group of directors and leading scientists from the front companies, performed scientific research planning for each company. The Financial Work Group, which included the Surgeon-General and the COS Finance, was responsible for budgetary planning and controlled the movement of money through various front companies so as to hide the SADF's role. The Security Work Group, which consisted of the COS Intelligence and other members of the intelligence community, handled security arrangements in order to assure the secrecy of the project.<sup>41</sup> It may be, however, that these "work groups" were little more than ad hoc collections of people brought together as needed to deal with particular issues that affected their work, since several senior scientists and officials later testified that they were unaware of their very existence.

Operating under the control and direction of these "work groups," at least in theory, was Basson. As Project Officer, his appointed task was to act as an intermediary between the CMC and the directors and scientists at the various CBW facilities. Although Basson modestly claimed that his function was to deal with the practical aspects of the project in accordance with the "strategic guidelines" provided by the CMC and its "work groups," and always insisted that he did not have a "free hand," his nominal superiors all concur that he personally supervised or managed the day-to-day affairs of the project, operated with a very high degree of autonomy and independence, and provided the CMC with the bulk of the crucial scientific and operational information that its members needed to make important managerial decisions, including the authorization of requested project expenditures.<sup>42</sup> In effect, the CMC seems to have become dependent upon Basson for its functioning, rather than the other way around. By the mid-1990s, when it became apparent that some portion of the funds requested by Basson had been used for his own personal gain rather than legitimate project needs, several of Basson's erstwhile supervisors

complained that all along he had misled them or kept them in the dark about what he was really doing.

Indeed, Project Coast may well have had some sort of parallel, unofficial command structure that operated alongside the official CMC chain of command. Former Army Surgeon-General Niel Knobel claimed that Basson was often either doing things on his own initiative or, as Basson himself later acknowledged, being given operational instructions directly by other parties, including the Defence Minister, the head of the SADF, the Commanding Officer of the SF, the COS Intelligence, the Director-General of the NIS, the Commissioner of the SAP, and possibly also members of the SSC or Cabinet who he treated medically. After receiving at least some of his orders from these powerful figures, above all SADF generals A. J. “Kat” Liebenberg and Magnus Malan, Basson then passed instructions on—always verbally—to Project Coast scientists and select members of covert SADF or SAP units with a “need to know,” frequently without informing his nominal superiors on the CMC.<sup>43</sup> As noted above, several of the directors and scientists employed at BW or CW facilities and other SADF front companies were formerly members of 7 Medical Battalion Group or its SO predecessor, and the covert operatives with whom Basson collaborated were almost all ex-members of the SF or various other South African and Rhodesian counterinsurgency and special operations units. Perhaps it was just such a parallel command structure, to which Basson clearly belonged, that the NIS referred to as the Binnekring (“Inner Circle”) in its December 1992 report on illegal SADF activities.<sup>44</sup>

### **South African Chemical Warfare Facilities**

The CW program was centered at one large biochemical research and production facility, Delta G Scientific, but it also relied upon the services of several other research facilities and laboratories in order to conduct additional testing or carry out the actual weaponization of various chemical substances. Delta G was a large, highly sophisticated CW research and production facility that cost approximately 30 million rand to build and equip. Originally, some of its functions had been performed at the smaller technical laboratories located at SF headquarters, in particular those operated by the aforementioned entity known as EMLC, which was officially designed to provide the SF with a defensive CBW capability and other specialized equipment. In April 1982, Delta G was established to take over EMLC’s CW tasks. It was originally located in the Pretoria suburb of Weldegraan, but in 1985 or 1986 the company moved to new facilities on the corner of George and Old Pretoria roads in Midrand, north of Johannesburg. Eventually, it consisted of two manufacturing plants, a pilot or pre-production plant, a large laboratory complex, workshops, and administrative offices.

Though ostensibly a private company that did commercial contract work for industry, a “cover” which facilitated its recruitment of top scientists and its

acquisition of materials overseas, Delta G was in fact an SADF front company that worked primarily on “hard” (military) projects rather than “soft” (commercial) or “in-house” (researcher-generated) projects. At its height Delta-G’s staff numbered around 120, most of whom either worked in production or in the Research Unit headed by Dr. Gert Lourens, which was itself divided into several scientific divisions—including the Biochemical Division under Dr. Hennie Jordaan. These essential units were supported logistically by administrative, financial, and security departments. The company’s managing director was Dr. Willie Basson (who was replaced in 1985 by Dr. Philip Mijburgh, the nephew of General Magnus Malan), its technical director was Dr. Gerrie Rall, its marketing director was Barry Pithy, and its administrative director was Dr. André Redelinghuys. Although Delta G had the ability to make virtually any synthetic chemical, its efforts were focused on various military projects geared toward the preservation of public order:

1. the large-scale production of chemical Riot Control Agents, including irritants such as CS and CR, and incapacitants;
2. the relatively small-scale production of various illegal mind-altering narcotics in an effort to develop and test their potential viability as “calmatives”;
3. a peptide synthesis program, headed by Dr. Lucia Steenkamp, one of whose goals was apparently to enhance the physiological effects of bioregulators; and
4. a CW research and analysis program, which manufactured small quantities of toxic substances on demand for various purposes.<sup>45</sup>

There was no actual weaponization of chemical crowd control agents at Delta G itself—this was handled by other companies to which Delta G’s materials were shipped, such as Swartklip Products—but various dangerous chemicals were acquired, researched, and/or prepared by scientists working for Gert Lourens, whose own instructions came directly from Basson or Mijburgh. Among these were CW agents like BZ and mustard, and a wide array of other toxic chemicals. Some of Delta G’s riot control products were then apparently tested at the pyrotechnical labs at SF headquarters, the SAP’s Forensic Sciences Laboratory, or other facilities at various state companies, semi-state companies, private companies, and universities. These latter included the defensive CBW company Systems Research and Development (whose purely protective components were later expanded, relocated, and renamed Protechnik) and the weapons manufacturer Swartklip, an ARMSCOR subsidiary. In the midst of a privatization phase in the early 1990s, Delta G was briefly sold by its shareholders back to the government armaments company ARMSCOR before being acquired by the chemical conglomerates Sentrachem Ltd and Dow Chemical. A handful of key Delta G personnel, in particular managing

director Mijburgh, seem to have profited considerably from this privatization scheme.

### **South African Biological Warfare Facilities**

The BW program was also centered at one large research, development, and production facility, Roodeplaat Research Laboratories, and it too tapped the resources of several commercial firms, university laboratories, and even zoos in order to effectuate supplementary research and testing. RRL was a large, highly sophisticated BW research, testing, and production facility that cost approximately 40 million rand to build and equip and 10 million rand per annum to operate. It was built specifically for this purpose on a farm 12–15 km north of Pretoria, near the Roodeplaat Dam, beginning in November 1983. By 1985 it consisted of a farmhouse, a small 3- or 4-room lab complex, and some animal cages, but it was thereafter expanded in phases to include a restricted BSL-3 basement Compression Lab and a security dog-breeding subsidiary (Roodeplaat Breeding Enterprises). There were also plans to build a BSL-4 facility further north.

Like Delta G, RRL was an SADF front company that worked primarily on military projects and only rarely (on average, about 10% of the time) on commercial or “in-house” projects. At its height RRL’s staff numbered around 70, including 40 scientists and technicians, and was divided into several scientific departments—Toxicology, Molecular Biology, Organic Chemistry, Physiology, Microbiology, an Animal Unit, etc.—that were supported logistically by administrative, financial, and security departments. Its managing director was Dr. Daan Goosen (who was replaced in 1986 by Wynand Swanepoel), its R&D director was Dr. André Immelman, its Animal Laboratory Services director was Dr. Schalk van Rensburg, and its administrative director was David Sparmer. Although RRL also did beneficial work on bovine vaccines, its efforts were focused on three types of military projects:

1. a toxin R&D program headed by Immelman, whose purpose was to develop and test lethal BW and CW agents that were untraceable;
2. a fertility program, headed by Dr. Riana Borman, one of whose primary purposes may have been—though this is bitterly debated, even by insiders—to limit the growth of the black population; and
3. a BW program linked to new developments in the genetic engineering field, headed by Dr. Mike Odendaal, whose aim was to research and develop antibiotic-resistant strains of pathogens by combining different biological agents.<sup>46</sup>

Although there was no large-scale production or weaponization of offensive BW agents at RRL, a plethora of toxic biological substances were acquired,

tested, and/or prepared by scientists working for Immelman, whose own instructions came directly from Basson. Among these were BW agents like anthrax bacterium, botulinum toxin, brucella bacterium, cholera bacterium, *Clostridium perfringens*, *Escheria coli*, plague bacterium, salmonella bacterium, HIV-infected blood, and snake venom, as well as CW nerve and blister agents and a wide array of other highly toxic chemicals. Some of these products may have then been tested at various other facilities. After being privatized for a brief period in the early 1990s, the company was sold by its shareholders back to the government and then liquidated. As with Delta G, a handful of key RRL personnel profited enormously from this privatization scheme, and several eventually found jobs at other biological or veterinary research facilities.

### **Project Coast Financing and Expenses**

The SADF provided funding to the Project Coast front companies through various “private” bank accounts that had been set up explicitly for such purposes. The COS Finance was primarily responsible for arranging the details of the transfer of funds after the requested amounts were approved by the CMC. Most of the funds were transferred from the SADF’s Secret Defence Fund directly to Inffadel, another SADF front company that in addition to disbursing funds was responsible for the technical information system, the operational coordination of the program, and the security and safety systems of Delta G and RRL. In 1990 Inffadel was dissolved and its functions were transferred to two new companies, Sefmed Information Services and D. John Truter Financial Consultants.<sup>47</sup> According to Hennie Bruwer, the Office of Serious Economic Offences (OSEO) auditor who conducted a ten-year investigation of Basson’s financial transactions, a total of around 418 million rand were allocated to the CBW program in the period between 1 April 1983 and 28 February 1992. From 1 March 1987 to 28 February 1993, the period covered by the Basson indictment, the project had access to nearly 340 million rand, of which 37 million rand were allegedly misappropriated by Basson and his collaborators.<sup>48</sup> These individuals set up an elaborate network of front companies and secret accounts in various parts of the world, through which SADF money could be funneled to procure embargoed materials, set up businesses, pay foreign collaborators, and bribe foreign officials in order to facilitate the transfer of materials and equipment to South Africa. All in all, Project Coast cost the SADF a total of 418,226,509 rand, of which 98,432,657 were expended on RRL and 127,467,406 were expended on Delta G.<sup>49</sup>

### **Classical Chemical Weapons Use by South Africa**

Although Project Coast did not sponsor any large-scale production or weaponization of standard chemical warfare agents, small quantities of such agents were produced at both RRL and Systems Research and Development (SRD), a separate company established in part to test CBW protective gear. These

included blister agents like mustard, nerve agents like tabun, sarin, and VX, and the military grade psychoincapacitant BZ.<sup>50</sup> Dr. Stiaan Wandrag of RRL later testified that his principal task was to develop CBW antidotes, ostensibly for the protection of VIPs, security force members, and South African agents who might be exposed to CW and BW agents, and that this work was carried out in the basement Compression Lab at RRL. Nevertheless, in declaring that all research on lethal CBW agents intended for conventional weapons delivery had been concluded by 1986 or 1987, Basson tacitly acknowledged that early on the South Africans may have considered deploying CW and BW agents as offensive battlefield weapons.<sup>51</sup> Indeed, on one later occasion this may have actually been done. In January 1992 the SADF reportedly tested an unspecified CW agent—possibly BZ—by bombing Frente de Libertação de Moçambique (FRELIMO: Front for the Liberation of Mozambique) troops from a pilotless observer aircraft near Ngungwe, killing at least five and injuring several more. Although a Basson-led SAMS team then “investigated” the incident and the SADF sought to blame the African National Congress (ANC) for sponsoring this CW attack, a top secret December 1992 NIS report concluded that the SADF had itself carried it out. Shortly thereafter, both the US and British governments issued a diplomatic protest (*démarche*) to South Africa, which suggests that they too believed that the SADF was responsible.<sup>52</sup> However, despite allegations that the South African military carried out other CW attacks against enemy troops in neighboring “frontline” states, e.g., during their successful 1978 raid on Cassinga, there is no definitive evidence that chemical weapons were used in an offensive capacity on these occasions.

### Classical Biological Weapons Use by South Africa

Although Project Coast did not sponsor any large-scale production or weaponization of standard biological warfare agents, several such agents were produced and tested at RRL. These included all of the 45 local strains of anthrax bacteria, *Brucella melitensis*, all four types of *Clostridium botulinum*, cholera bacteria, and *Yersinia enterocolitica* and/or *Y. pestis*.<sup>53</sup> Given the Rhodesian precedent, it is perhaps not surprising—despite Basson’s repeated denials—that the South African security forces were themselves later accused of participating in offensive BW attacks. First, some observers have attributed the so-called “anthrax epizootic” that broke out in various areas of Zimbabwe in 1979 and 1980—prior, it should be noted, to the official establishment of Project Coast—to the intentional dissemination of *B. anthracis* by Rhodesian and/or South African special operations personnel. However, teams of international scientists who subsequently investigated the incident were unable to determine whether this outbreak was natural or man-made.<sup>54</sup> Second, in August of 1989 Basson reportedly instructed RRL’s R&D director André Immelman to provide 22 bottles of *V. cholerae* to Dr. R. J. Botha, at the time a medical coordinator of the Civil Co-operation

Bureau (CCB), a covert SF assassination unit. CCB deputy chief Joe Verster then provided four of those bottles to regional CCB commander Pieter Botes, who testified that he directed his subordinates Charlie Krause and José Daniels to dump the contents of two of them into the water supply at the Southwest Africa Peoples Organisation (SWAPO) refugee camp outside Windhoek in Namibia. In the end, this operation failed to produce the desired contamination effect because of the high chlorine content of the water.<sup>55</sup> There are no other indications that biological weapons were used by South Africa in offensive actions of this type.

### The Covert “Poison Assassination” Program

The most characteristic feature of the South African CBW program was undoubtedly the development, testing, and utilization of a wide array of hard-to-trace toxic agents to assassinate “enemies of the state.”<sup>56</sup> As insider testimony and the notorious RRL “sales list” of 1989 (TRC document 52) indicate, several of the highly toxic substances produced at both Delta G and RRL were actually deployed by clandestine SADF and SAP “death squads,” above all the SF’s Civil Co-operation Bureau (CCB) and the SAP Security Branch’s [counterinsurgency]1 section (later renamed C10) housed at the Vlakplaas base, in covert assassination operations.<sup>57</sup> In this context it should again be pointed out that members of various elite Rhodesian counterinsurgency units that had previously deployed toxic chemicals or biological agents against guerrillas during the Rhodesian civil war had thereafter been incorporated into SADF special operations units (like the SF and its Delta40 and Barnacle “hit teams,” the predecessors of the CCB) or the SAP’s counterinsurgency forces (like the Koevoet [“Crowbar”] unit).<sup>58</sup>

There is no doubt whatsoever that high-ranking officers within the SADF and SAP and other “securocrats” within the government were generally aware of these activities, many of which they in fact authorized. As early as 1969, a special unit known as the Z Squad had been set up within BOSS, a secret service that had been created by General H. J. van den Bergh and staffed largely with personnel from the SAP Security Branch, to eliminate both enemies of the state and security risks. As for the SADF, it was under the rubric of a plan initiated in 1979 and codenamed “Operation Dual” that a large number of targeted individuals—guerrillas in neighboring countries, troublesome prisoners, untrustworthy members of the security forces, or activists in the ANC and other South African opposition groups—first began to be murdered in this fashion, and those who did not actually die sometimes suffered terrible illnesses or injuries. The primary SADF formation that carried out these “Dual” actions was the aforementioned Barnacle unit. Documents demonstrate that this assassination program was secretly authorized by former Selous Scout Fritz Loots, the first commander of the revamped and expanded SF, and according to the SADF’s chief assassin Johan Theron, Loots also approved his

plan to inject these victims with drugs prior to disposing of their bodies by throwing them out of an airplane into the ocean. This is confirmed by yet another top secret document, which lists “Eliminations” and “Conducting chemical operations” as being among the six primary tasks of Barnacle.<sup>59</sup>

In the mid-1980s, “Operation Dual” was replaced by a higher-level and more formalized assassination program when the Teen-Rewolusionêre Inligting Taakspan (TREWITS: Counter-Revolutionary Intelligence Task Force) was created. Consisting of representatives from the SAP’s SB, the Division of Military Intelligence (DMI), the SF, and the NIS, one of its primary purposes was to “identify human targets for removal” in a series of monthly reports that were forwarded to the SSC. During the period it was operating, TREWITS authorized a total of 82 extra-judicial killings and 7 attempted killings.<sup>60</sup> The specific groups entrusted with carrying out these “hits” were the covert CCB and C1/C10 paramilitary units.

On the verbal instructions of Basson, RRL’s R&D director André Immelman secretly transferred a host of highly toxic chemicals and freeze-dried pathogens that had been produced either at Delta G or RRL—and thereafter stored in a refrigerator inside a fireproof and bombproof walk-in safe in his own office—to military and police personnel through various channels. The specific recipients of these lethal substances and contaminated items were Dr. R. F. Botha (alternately known as “Koos”, “Mr. R”, and “Frans Brink”) and Vernon Lange (otherwise known as “Mr. T” and “Theo Otto”), both of whom were operatives of the CCB; Chris Smit, Gert Otto, and Manie van Staden, three SB officers who either deployed some of them personally or later distributed them to C1/C10 “hit team” members; Johnny Koortzen, an ex-SO psychologist who in 1988 assumed control over Systems Research and Development, a company that bioengineer Jan Lourens had set up in part to manufacture special “applicators,” i.e., arcane assassination devices such as rings, screwdrivers, walking sticks, and umbrellas that had been transformed into weapons by means of the addition of poison compartments and injectors or firing mechanisms for poisoned pellets; and Basson himself. The actual substances included potentially lethal chemicals such as aldicarb, brodifacum, cantharidin, colchamine, cyanide, digoxin, methanol, monensin, paraoxon, paraquat, phencyclidine, phosphide, silatrane, sodium azide, thallium, and Vitamin D3, biological agents such as anthrax spores, botulinum toxin, brucella bacteria, salmonella bacteria, mamba venom, and bottles of cholera bacteria, and a wide variety of foodstuffs, beverages, household items, and cigarettes that had been contaminated with these poisons.<sup>61</sup> There can be little doubt that several of these toxic materials, items, or devices were subsequently used to murder or sicken opponents of the apartheid regime. Among the most prominent reported targets of these poison assassination plots, most of whom apparently became actual victims, were Dutch ANC operatives such as Conny Braam and Klaas de Jonge; SACP military leader Joe Slovo; “unreliable” security force members such as Victor M. de

Fonseca, Mack (“Fernando”) Anderson, Roland M. Hunter, and Garth Bailey; anti-apartheid activists such as United Democratic Front regional secretary Abdullah Mohamed Omar; and key ANC figures such as Vuyani Mavuso, Sipiwo Mtimkulu, Mandla Msibi, Gibson Mondlane, Gibson Ncube, Pallo Jordan, Ronnie Kasrils, Kwenza Mlaba, the Reverend Frank Chicane, Knox (“Enoch”) Dhlamini, and perhaps, if certain insider scientists can be believed, Nelson Mandela.<sup>62</sup> If one excludes the hundreds of drugged and secretly disposed of guerrillas mentioned above, the total number of poisoned victims appears to have been in the dozens.

### **The Dismantling of Project Coast**

Later, in the course of the extraordinary political transition of the early 1990s, during which the apartheid regime reluctantly but peacefully ceded power to a new ANC-led government, the activities of Project Coast were gradually phased out and exposed. The actual dismantling process was initiated by the apartheid regime and completed by the post-apartheid government, but marked by irregularities throughout. It would be natural to expect that although the old regime would do everything in its power to cover up the most sensitive aspects of its covert CBW program in the course of shutting it down, the new majority-run government—most of whose leading members had long been bitter opponents of apartheid and in some cases actual targets of assassination—would be particularly keen to expose the crimes of its racist predecessor. However, the new government also demonstrated an unanticipated reluctance to reveal crucial details about Project Coast to the public, as well as to punish certain guilty parties for their crimes.

After succeeding P. W. Botha as President in July 1989 and being briefed on Project Coast by Surgeon-General Knobel and others in March 1990, Frederik de Klerk ordered that no more lethal chemical agents should be produced. Even so, he authorized the continued production of irritating and incapacitating agents, the CCB and SB carried on with their violence and covert poisoning efforts, and as noted above the SADF may have tested a chemical agent by bombing FRELIMO forces in Mozambique.<sup>63</sup> Moreover, the military—with or without the knowledge and authorization of De Klerk’s government—appears to have accelerated its illegal international procurement activities in anticipation of the January 1993 signing of the new Chemical Weapons Convention (CWC) treaty.<sup>64</sup>

The situation finally came to a head in December 1992, the same month in which De Klerk officially announced the end of apartheid and released Nelson Mandela from prison. In response to the revelations about illegal “Third Force” and Coast activities by the Goldstone Commission of Enquiry, the NIS, and General Pierre Steyn in the course of a personal briefing, De Klerk

decided to dismiss 23 senior military personnel, including Basson, from active service in the SADF. Despite this decision, in January 1993 Basson was entrusted with personally supervising the destruction of various Coast-related chemical stores, and earlier that same month he and other high-ranking SADF officers authorized the copying of all of the project's CBW technical and scientific information onto CD-ROMs, along with the subsequent destruction of the copied documents. This year-long task was carried out by Delta G chemist Klaus Psotta and Dr. Kobus Bothma at Data Images Information Systems, a company owned by Delta G's managing director Mijburgh (and previously known as Medchem Technologies). After the project documents were copied, thirteen discs full of classified data were placed in a succession of safes to which only De Klerk, Knobel, and the new Coast Project Officer, Colonel Ben Steyn, had keys.<sup>65</sup> At the end of March 1993, the date he was to have been cashiered, Basson was re-employed by the government for one year to tie up other loose ends on the project. After this temporary extension of his work for Coast and a brief subsequent period of retirement from the SADF, in 1995 he was rehired as a physician at 1 Military Hospital in the hopes of forestalling his continued collaboration with unscrupulous foreign parties. In the meantime, the "privatization" of the project's military front companies and the reassignment of some of Coast's scientific personnel proceeded apace.

Unfortunately, there is no proof that the project's toxic materials and documents were all actually destroyed. Basson's reported destruction of Coast's CW and BW agents was never independently verified. On 29 January 1993 Basson told the CMC that he had disposed of several drums of the project's chemicals by flying them out over the ocean off Cape Agulhas in an Air Force plane and dumping them overboard, but it was not until 30 March 1993 that Commandant J. G. de Bruyn of the DMI prepared a report certifying this destruction or that Basson actually handed over the first samples that had supposedly been taken from the drums for chemical analysis by the SAP, as required. Indeed, during his cross-examination, Knobel admitted that he had simply taken Basson's word that these dangerous materials were destroyed.<sup>66</sup> Basson's claims to have overseen the burning up of Coast's biological agents in an oven at RRL were likewise never independently corroborated, and samples of some of the lethal agents produced at RRL or Delta G may have been removed from the former facility by certain scientists who worked there.<sup>67</sup> However that may be, there is no doubt whatsoever that hard copies of thousands of Delta G and RRL documents which had supposedly been recorded and destroyed were instead retained and stored in trunks by Basson. Nor was he alone in not handing over all of his Coast documentation for destruction. Scientists at RRL later admitted that they too had not turned over all their project reports, as instructed by RRL's management.<sup>68</sup> If nothing else, this demonstrates that the apartheid regime did not take adequate steps to ensure

that its CBW program was dismantled in such a way as to prevent potential future proliferation.

The current South African government is in no way responsible for the manifest failures of its predecessor to supervise the dismantling of Project Coast properly. Nevertheless, from the point of view of transparency regarding prior South African CBW activities, it has unfortunately not been as forthcoming in releasing information as it might have been. First, both the American and British governments protested in 1994 and 1995 that South Africa's declarations in its Biological and Toxin Weapons Convention (BTWC) Confidence Building Measure were not credible because they downplayed the offensive features of the program. Second, the Form F portion of South Africa's 1995–2000 BTWC submissions, which specifically dealt with information about its past offensive and defensive R&D programs, contained statements that Gould and Folb have characterized as “incomplete” and “misleading” insofar as they “deliberately concealed relevant information about the programme.”<sup>69</sup> Third, in May 1998 TRC commissioners were summoned to high-level meetings at the Ministry of Defence, the Ministry of Foreign Affairs, the Surgeon-General's office, and the NIS's successor, the revamped National Intelligence Agency (NIA), where they were pressured to prevent the public exposure of Project Coast on the grounds that embarrassing revelations might well interfere with South Africa's foreign relations. The TRC commissioners refused, but agreed to a process whereby sensitive documents could be identified by the authorities so that their dissemination could be restricted. Fourth, on 8 June 1998 the government unsuccessfully sought to persuade the TRC not to open its CBW hearings to the public.<sup>70</sup> Many of these actions were no doubt undertaken in good faith to prevent the release of sensitive scientific information that might lead to further proliferation or to facilitate the overall process of societal reconciliation, but in certain instances the new government seems to have sought to conceal portions of the historical record in order to forestall embarrassing revelations and/or protect various compromised but influential individuals.

In January 1997 Basson was arrested in a “sting operation” for possessing 3,158 capsules of the illegal drug MDMA (“Ecstasy”) that had apparently been manufactured at Delta G, ostensibly for use as a potential “calmative.” Following his arrest, the police discovered several trunks full of Coast documents that he had secretly whisked away and stashed with friends or in storage facilities, a small but important portion of the corpus of documents that was supposed to have been physically destroyed after being copied onto CD-ROMs.<sup>71</sup> He was then indicted by the state for murder and a host of other crimes that he allegedly committed during the period he served as Project Officer for Coast. During the course of his trial, as well as at the hearings held by the TRC, a wealth of detailed information emerged regarding the true scope and nature of South Africa's CBW program.

## CURRENT STATUS

In February 2003, towards the end of a long period of bitter international diplomatic wrangling over the best way to disarm the Ba'th regime of Saddam Husayn in Iraq, the South African government sent a delegation to Baghdad with great fanfare to advise the Iraqis on how best to proceed with a verifiable process of WMD disarmament. In doing so, the South Africans were seeking greater world recognition and presenting their own disarmament process as a model for future Iraqi disarmament.<sup>72</sup> Yet however justifiable South Africa's pride may have been in regard to the dismantling of its nuclear and missile programs, such pride would have been largely misplaced had it been extended to the dismantling of the country's CBW program. Not only did many irregularities mark South Africa's rather convoluted CBW disarmament process, not the least of which was the lack of any independent verification of the alleged destruction of its remaining stocks of chemical and biological agents, but there are indications that certain key personnel associated with Project Coast may have subsequently facilitated CBW proliferation, intentionally or otherwise.

## Project Coast, Foreign Intelligence Agencies, and "Rogue Regimes"

In the context of WMD proliferation, the most worrisome aspect of the now defunct Project Coast is that Basson, in connection with his overseas procurement activities, had established close contacts with foreign intelligence operatives and officials from "rogue regimes" such as Libya, with whom he is suspected of sharing information concerning CBW techniques or products.<sup>73</sup> Among his many alleged foreign interlocutors or collaborators were North American, European, and Taiwanese CBW experts he claims to have met at conferences; former British Army intelligence and Secret Intelligence Service (MI6) officer Roger Buffham; Swiss military intelligence chief Peter Regli and one of his operatives, Jürgen Jacomet; former Iranian government official, secret agent, and apparent *con man* Muhammad 'Alī Hashemī (the brother of Cyrus Hāshemī of Iran-Contra Affair notoriety); senior Libyan intelligence officers Yūsuf Murghām and 'Abd al-Razāq; unscrupulous Croatian police and intelligence officials; Danish intelligence officer Hendrik Thomsen; and a Russian named Vorabyov. In addition, Basson spent several months in Libya supposedly working on designing a transportation system, claims to have traveled to Iraq to oversee the effects of CW attacks, claims to have gone to Iran to help the government deal with one or more outbreaks of disease, and visited Germany and Eastern Europe to consult with businessmen reputedly associated with the so-called "CBW mafia," such as Hubert Blücher.<sup>74</sup> Other Project Coast scientists may also have made their way to countries with dictatorial

regimes—on one occasion Immelman met in Johannesburg with an alleged Syrian military officer about CBW matters, but despite rumors to the contrary he never actually traveled to Syria.<sup>75</sup> Alas, even after more than ten years of investigations, various South African government agencies have been unable to clarify exactly what it was that Basson and his associates were up to overseas. Many knowledgeable observers fear, however, that he may have provided valuable technical information or perhaps even toxic materials generated by Project Coast to individuals and regimes with dubious credentials or unsavory agendas.

Moreover, as recently as the summer of 2002, other Coast-linked personnel were approached by various foreign parties seeking to obtain CBW materials. On two occasions Dr. Daan Goosen, a former RRL scientist now engaged in monitoring BW for the NIA in South Africa, was asked to provide Coast-related biological materials that had supposedly been destroyed to foreign parties. In the first instance, he willingly provided a 5 ml sample of goat serum used as an anthrax diagnostic agent for livestock and a 2 ml sample of freeze-dried *E. coli* genetically modified with the gene coding for *Clostridium perfringens* toxin to a former Central Intelligence Agency (CIA) officer named Robert A. Zlokic and his handler Donald G. Mayes, an ex-US intelligence contract operative who spent years functioning as an “independent” arms dealer. The precise nature of the second prospective deal is less clear. According to some witnesses, Goosen was asked to provide anthrax bacteria and other BW agents to a group of “Germans” in exchange for 20 million dollars. He then became suspicious, and as soon as he learned that the “Germans” were really Arabs, including a Qatari who worked at the Saudi embassy, he opted out of the deal and told his NIA superiors. According to other sources, Goosen was the target of an SAP “sting” operation. A phony “shaykh” approached him and offered to pay him 150 million dollars for samples of anthrax bacteria and the aforementioned serum, as well as other items. Goosen was unwilling to provide such materials to Arabs, who he feared might endeavor to use them in acts of terrorism, and therefore reported the incident to the NIA. At the moment, this latter version appears to be more accurate.<sup>76</sup> In both deals the middleman between Goosen and the “foreigners” was a right-winger and retired SADF Major-General associated with the CCB named Tai Minnaar, who in 1989 established a private company called Military Technical Services (MTS) that had links with the powerful South African mercenary recruitment agency Executive Outcomes (EO).<sup>77</sup> Shortly after the collapse of the second deal Minnaar suddenly died, officially of a heart attack. According to his girlfriend, however, his peculiar discoloration and bloating symptoms prior to death suggested that he may have been assassinated with some sort of poison, but this cannot be confirmed since relatives asked that his body be cremated and no autopsy was performed.<sup>78</sup> These two examples may represent only the tip of a much larger iceberg of secret efforts by foreigners to acquire South African CBW materials.

## Project Coast and the International Right-Wing

Perhaps even more troubling is the possibility that Basson or other Coast personnel may have transferred dangerous CBW materials or know-how to elements of a loose international network of right-wing extremists. Some civilian Afrikaner paramilitary groups, whose pro-apartheid members remain violently opposed to black majority rule, have publicly threatened to attack their enemies with chemical and biological agents.<sup>79</sup> Investigative journalists are currently following certain leads in an effort to determine if former members of the SF or various SADF- and SAP-sponsored “death squads” may have subsequently collaborated with the civilian paramilitary right inside South Africa, which in recent months has again begun carrying out terrorist attacks.<sup>80</sup> Others have expressed fears that Basson and other Coast scientists were associated with an even broader international right-wing network, purportedly known as Die Organisasie (The Organization), among whose members are said to be expatriate Rhodesians and South Africans who immigrated to other countries both during the apartheid era and as the apartheid system was collapsing.<sup>81</sup>

If an organization of this sort actually exists, which remains to be substantiated, it may turn out that the American doctors Larry Ford and Jerry Nilsson, an outspoken white supremacist, were among its members. According to a pair of Federal Bureau of Investigation (FBI) informants, in the mid-1980s Dr. Ford transferred a suitcase full of dangerous “*kaffir-killing*” pathogens to Surgeon-General Knobel at the Los Angeles residence of the South African trade attaché, Gideon Bouwer.<sup>82</sup> It has also emerged that Nilsson fought as a volunteer against nationalist guerrillas during the Rhodesian civil war, that Ford and Nilsson repeatedly visited South Africa, that Knobel consulted with Ford on CBW matters and personally introduced Ford to Basson, that Basson arranged to have secret accounts opened in Ford’s name, and that at Knobel’s request Ford lectured Coast scientists about the contamination of household items with biological agents.<sup>83</sup> In the wake of Ford’s March 2000 suicide, which transpired just as he was beginning to be implicated in the attempted assassination of his Irvine business partner James Patrick Riley, the police discovered an arsenal of small arms and explosives, Christian Identity militia literature, and over 260 containers of biological materials on his various properties. (For unknown reasons, the FBI has yet to divulge the contents of all but 20 or so of those containers.) Patients and former mistresses have testified that Ford secretly poisoned them, and a jar of ricin toxin was found in a refrigerator in his garage.<sup>84</sup> The fact that one of ex-Selous Scout and EMLC armorer Philip Morgan’s “special applicators” was also found among Ford’s possessions is itself indicative of what appears to have been a close relationship between the American doctor and key Project Coast personnel.

There is also some evidence indicating that Stephen J. Hatfill, an American biological warfare expert whom the FBI designated as a “person of

interest" in its investigation of the 2001 "anthrax letter" mailings in the United States, was involved in various Rhodesian intelligence or counterinsurgency operations. Although Hatfill's activities in southern Africa have yet to be fully clarified, it is known that he worked for the Rhodesian police's Special Branch and that he later obtained his medical degree from the University of Rhodesia/Zimbabwe.<sup>85</sup> Some have hinted that he operated out of the Selous Scouts base at the Bindura Fort, from whence McGuinness facilitated the launching of "black operations," including CW actions. At present, however, intimations that Hatfill may have been personally involved in the covert dissemination of CW or BW agents in southern Africa can only be characterized as unsubstantiated. Be that as it may, in 2002 the South African media reported that Hatfill had earlier helped to train the Aquila Brigade shock troops of Eugene Terre'Blanche's right-wing Afrikaner Weerstandsbeweging (AWB: Afrikaner Resistance Movement).<sup>86</sup> During this period, he also claims to have received advanced medical training from various SAMS components, as well as to have been assigned to its 2 Medical Battalion Group.

## CONCLUSION

Unfortunately, the extent to which the activities undertaken by Project Coast may have resulted, inadvertently or intentionally, in the proliferation of WMD to other regions has yet to be determined. Since a large amount of documentation is already available concerning the development, nature, and extent of the South African CBW program, it serves to highlight the difficulties involved in assessing the potential proliferation threat posed by WMD programs, even years after they have been officially terminated and dismantled. It also illustrates the fact that even democratic governments are often reluctant to "air dirty laundry" by revealing sensitive state secrets, even if doing so might serve to expose their domestic political enemies' prior crimes.

## NOTES

1. Centre for Conflict Resolution (CCR), Basson Trial: Weekly Summaries of Court Proceedings, October 1999-April 2002, [final] special report (this and all other portions of these trial summaries can be accessed at <ccrweb.ccr.uct.ac.za/cbw\_index>); "The long and costly road to acquittal," Sunday Times (14 April 2002); Chris McGreal, "Dr. Death a free agent once again," The Age (14 April 2002); "Revenge of South Africa's 'Dr. Death'," BBC News Online (12 April 2002). For a detailed enumeration of all the charges against Basson, see especially Hooggeregshof, *Die Staat teen Wouter Basson, Akte van Beskuldiging [Indictment]* (1999). The South African Constitutional Court recently authorized the government to appeal the original verdict and re-try Basson, in the process overturning an earlier decision by the Supreme Court of Appeals. See Constitutional Court of South Africa, *The State versus [Wouter] Basson, Case CCT 30/03, Judgment*, 9 September 2005, paragraphs 261ff.

2. For the early history of the chemical industry and CW activities in South Africa, see G. C. Gerrans, "Historical Overview of the South African Chemical Industry, 1896–1998," *Chemistry International* 21:3 (May 1999), pp. 71–7; Ian van der Waag, review of *The Rollback of South Africa's Chemical and [sic] Biological Warfare Program*, *Journal of Military History* (January 2002), p. 272; Stephen Burgess and Helen Purkitt, *The Rollback of South Africa's Biological Warfare Program* (USAF Academy, Colorado: USAF Institute for National Security Studies, 2001), pp. 2–3; Chandré Gould and Peter Folb, *Project Coast: Apartheid's Chemical and Biological Warfare Programme* (Geneva: United Nations Institute for Disarmament Research, 2002), pp. 31–2.
3. Gould and Folb, *Project Coast*, pp. 32–4, citing documents and firsthand testimony.
4. This and the other De Villiers documents are cited in *ibid.*, pp. 32–4.
5. For EMLC, see CCR, *Basson Trial*, testimony of Coetzee, Jan van Jaarsveld, Jan Lourens, Philip Morgan, Stephanus Redlinghuys, Johan Theron, and Sybie van der Spuy; and Gould and Folb, *Project Coast*, p. 35.
6. See, e.g., the websites of various facilities concerned with research on bacterial or viral diseases, including the National Institute for Communicable Diseases (NICD, formerly known as the National Institute for Virology): <[www.nicd.ac.za/about/history.html](http://www.nicd.ac.za/about/history.html)>; the Onderstepoort Veterinary Institute (OVI): <[www.arc.agric.za/institutes/ovi](http://www.arc.agric.za/institutes/ovi)>; and the Pretoria Biomedical Research Centre (formerly known as the H. A. Grové Research Centre): <[www.up.ac.za/academic/dept\\_div](http://www.up.ac.za/academic/dept_div)>.
7. For further information on these scientific institutions, see note 6 above and Jeffrey M. Bale, "BW Facilities" section, Nuclear Threat Initiative (NTI) website: [www.nti.org/e\\_research/profiles/SAfrica/Biological/2432.html](http://www.nti.org/e_research/profiles/SAfrica/Biological/2432.html).
8. RSA, Truth and Reconciliation Commission (TRC), *Hearings on South Africa's Chemical and Biological Warfare Programme*, testimony of Goosen and Basson, who denied this claim. The testimony at the TRC's Chemical and Biological Warfare Hearings can all be accessed at <[www.doj.gov.za/trc/special/index.htm#cbw](http://www.doj.gov.za/trc/special/index.htm#cbw)>.
9. Gould and Folb, *Project Coast*, pp. 32–4, citing De Villiers documents and firsthand testimony.
10. Burgess and Purkitt, *Rollback of South Africa's Biological Warfare Program*, p. 7. These efforts were reportedly observed firsthand by SADF personnel sent to Angola to gain counterinsurgency experience. No mention is made of such operations in the Portuguese-language sources examined by the author.
11. The best general overview of Rhodesian counterinsurgency operations is provided by J. K. Cilliers, *Counter-Insurgency in Rhodesia* (London: Croom Helm, 1985). Rhodesian "pseudo-operations" were derived from the "counter-gang" techniques used by the British in Malaya and against the Mau-Mau in Kenya, in which members of the security forces would pose and operate as insurgents in order to infiltrate guerrilla-held areas, gather intelligence, attack or "turn" real guerrillas, and carry out psychological warfare operations by, among other things, committing atrocities that could be blamed on insurgent forces so as to alienate them from the population. The primary Rhodesian special operations unit that was tasked with carrying out such operations was the Selous Scouts. See *ibid.*, pp. 118–34.
12. See especially the insider accounts of former members of the Rhodesian and South African security services, including Eugene de Kock (with Jeremy Gordin), *A Long Night's Damage: Working for the Apartheid State* (Saxonwold, RSA: Contra Press, 1998), p. 71; Ken Flower, *Serving Secretly: An Intelligence Chief on Record. Rhodesia into Zimbabwe, 1964 to 1981* (London: John Murray, 1987), p. 137; Henrik Ellert, *The Rhodesian Front War: Counter-Insurgency and Guerrilla War in Rhodesia, 1962–1980*

(Gweru, Zimbabwe: Mambo Press, 1989), pp. 109–12; and Peter Stiff, *The Silent War: South African Recce Operations, 1969–1994* (Johannesburg: Galago Press, 1999), pp. 308–10. Compare also Jeremy Brickhill, “Zimbabwe’s Poisoned Legacy: Secret War in Southern Africa,” *Covert Action Quarterly* 43 (Winter 1992–93), pp. 7–10; and Tom Mangold and Jeff Goldberg, *Plague Wars: The Terrifying Reality of Biological Warfare* (New York: St. Martin’s, 1999), pp. 214–23.

13. Gould and Folb, *Project Coast*, p. 26, citing an email from Mike Woods; and Brickhill, “Zimbabwe’s Poisoned Legacy,” pp. 7–10.

14. See also Stiff, *Silent War*, pp. 308–10, who notes rumors to the effect that Symington (who he calls “Sam Roberts”) may have killed more guerrillas with poisons in certain months than the Rhodesian Light Infantry managed to kill through regular military actions.

15. Gould and Folb, *Project Coast*, p. 27, citing two 2002 interviews with McGuinness.

16. See Ellert, *Rhodesian Front War*, pp. 110–11; Brickhill, “Zimbabwe’s Poisoned Legacy,” p. 7; and Flower, *Serving Secretly*, p. 137.

17. Gould and Folb, *Project Coast*, p. 27, citing two 2002 interviews with McGuinness. Here it should be pointed out that the Special Branch of the BSAP effectively constituted the internal operations division, known as Branch I, of the CIO; Branch II was the external operations division. The Projects Section was an offshoot of Branch I’s Terrorist Desk, which was established to “make quicker and more effective use of operational intelligence gleaned from interrogation reports.” See Henrick Ellert, “The Rhodesian Security and Intelligence Community, 1960–1980: A Brief Overview of the Structure and Operational Role of the Military, Civilian and Police Security and Intelligence Organizations which served the Rhodesia Government during the Zimbabwean Liberation War,” in Ngwabi Bhebe and Terence Ranger, eds., *Soldiers in Zimbabwe’s Liberation War* (Portsmouth, NH: Heinemann, 1995), p. 95. Note also that the Selous Scouts and C Squadron of the Special Air Service (SAS) provided the CIO’s “executive muscle,” and that both Branches I and II had established close relations with their South African counterparts, Branch I with the Security Branch of the South African Police (SAP), Branch II with the Bureau of State Security (BOSS) and, later, the National Intelligence Service (NIS). See *ibid.*, pp. 88, 96.

18. Ellert, *Rhodesian Front War*, p. 112. Compare Gould and Folb, *Project Coast*, p. 28, citing a phone conversation with Allum.

19. *Ibid.*, p. 27, citing two 2002 interviews with McGuinness; and Mangold and Goldberg, *Plague Wars*, p. 222 (quotes).

20. Meryl Nass, “Anthrax Epizootic in Zimbabwe, 1978–1980: Due to Deliberate Spread?,” *The PSR Quarterly* 24:2 (December 1992), pp. 198–209.

21. Mangold and Goldberg, *Plague Wars*, pp. 224–7. The ricin to be used had supposedly been prepared as an assassination weapon, along with thallium and parathion, by Professor Symington of the University of Rhodesia.

22. Compare de Kock, *Long Night’s Damage*, pp. 58–9; Cilliers, *Counter-Insurgency in Rhodesia*, p. 9; Burgess and Purkitt, *Rollback of South Africa’s Biological Warfare Program*, pp. 7–8; and Ian Martinez, “The history of the use of bacteriological and chemical agents during Zimbabwe’s liberation war of 1965–80 by Rhodesian forces,” *Third World Quarterly* 23:6 (2002), p. 1170.

23. Brickhill, “Zimbabwe’s Poisoned Legacy,” pp. 8–9.

24. Klaas de Jonge, (Nov. 1997) “The Chemical Warfare Case,” *The (Secret) Truth Commission Files*, p. 4, <[http://www.contrast.org/truth/html/chemical\\_biological\\_weapons](http://www.contrast.org/truth/html/chemical_biological_weapons)>.

html>, citing an 11 November 1997 letter from former SADF officer and ANC agent Dieter Felix Gerhardt.

25. Mangold and Goldberg, *Plague Wars*, pp. 221–2.

26. Cited by Gould and Folb, *Project Coast*, p. 30. The term “necessary ingredients” in this report need not be a reference to chemical or biological agents, since the South Africans were then supplying many items to the Rhodesians.

27. Brickhill, “Zimbabwe’s Poisoned Legacy,” pp. 58–60.

28. Gould and Folb, *Project Coast*, p. 22.

29. TRC, *CBW Hearings*, testimony of Wouter Basson, Niel Knobel, and Daan Goosen; CCR, *Basson Trial*, testimony of Knobel; Gould and Folb, *Project Coast*, pp. 36–8, citing Basson’s comments at a 31 November 1990 meeting of the Reduced Defence Command Council.

30. For all of these details, see *ibid*, pp. 40–1, citing Davey’s trail testimony, a conversation with Steenkamp, and an affidavit by Du Toit entered into the Basson trial court record on 13 November 2000. See also Brian Davey, (8-12 June 1992) “Degradation of Human Performance with use of chemical protective clothing: Overview of Research Programme,” paper presented at the Fourth Annual Symposium on Protection Against Chemical Warfare Agents in Stockholm.

31. CCR, *Basson Trial*, testimony of Jan Lourens, Basson, and several in-theater military officers, including Major-General Leslie Rudman, Lieutenant-General Deon Ferreira, Colonel Paul Fouché, and Colonel Renier Coetzee. Compare Marlène Burger and Chandré Gould, *Secrets and Lies: Wouter Basson and South Africa’s Chemical and Biological Warfare Programme* (Cape Town: Zebra, 2002), pp. 39, 102–7.

32. Among other places, this “total war” concept was laid out in the SADF *White Paper* of 1977. Compare Kenneth W. Grundy, *The Militarisation of South African Politics* (London: I. B. Tauris, 1986), p. 11; Mark Swilling and Mark Phillips, “State power in the 1980s: From ‘total strategy’ to ‘counter-revolutionary warfare’,” in Jacklyn Cock and Laurie Nathan, eds., (1989) *Society at War: The Militarisation of South Africa* (New York: St. Martin’s Press), pp 135–7; Mangold and Goldberg, *Plague Wars*, p. 247; and [General] Magnus Malan (1980). “Die aanslag teen Suid-Afrika,” *ISSUP Strategic Review* 2. It may well be that internal security concerns were paramount for the apartheid government, and that the establishment of Coast had as much or more to do with controlling and suppressing the country’s black majority as it did with resisting external threats. This could help to explain the program’s peculiar emphasis on using CBW agents to eliminate or otherwise “neutralize” domestic opponents of the regime as well as to control unruly crowds.

33. Cited and partially reproduced by Gould and Folb, *Project Coast*, pp. 153–5. The document, dated 28 November 1989, is entitled “Projek Coast: Moontlikhede vir Privatisering” (“Project Coast: Possibilities for Privatization”). Note that these quoted passages appeared alongside, and in direct contradistinction to, other passages in the very same document wherein the program’s defensive dimensions were enumerated.

34. TRC, *CBW Hearings*, testimony of Jan Lourens, Schalk van Rensburg, Daan Goosen, and Mike Odendaal. Compare Milton Leitenberg, “Biological Weapons in the Twentieth Century: A Review and Analysis,” paper prepared for the 7th International Symposium on Protection against Chemical and Biological Warfare, June 2001, in Stockholm, pp. 15–16: <[www.fas.org/bwc/papers/bw20th](http://www.fas.org/bwc/papers/bw20th)>. Only if one restricts the term “offensive” narrowly to the large-scale production of lethal battlefield and “area denial” CBW weapons can it be argued that Project Coast was not offensive, although even then there are a few instances in which such weapons appear to have been used by South Africa. It should be self-evident, however, that a CBW program whose most

distinctive characteristic was the development of an extensive array of lethal, hard-to-trace chemical and biological agents to assassinate “enemies of the state” cannot legitimately be described as “defensive.” As Coast bioengineer Jan Lourens put it, official claims that the South African CBW program was strictly defensive are “unqualified absolute nonsense.” See TRC, *CBW Hearings*, testimony of Jan Lourens. The South African program may have been idiosyncratic and *atypically* offensive, if not unique in many respects, but it was nonetheless in part offensive.

35. Gould and Folb, *Project Coast*, pp. 43–4, citing a 7 January 1993 presentation by Basson and Knobel to the Defence Minister. Compare also Basson’s testimony before the TRC and at his trial, as well as that of Knobel.

36. For Basson’s “meteoric” career progress, see TRC, *CBW Hearings*, testimony of Knobel and Basson. Compare Gould and Folb, *Project Coast*, p. 43, citing a 1 January 1992 document prepared by Knobel.

37. *Ibid.*, p. 59. Among the many SO alumni were Basson, Philip Mijburgh, Jan Lourens, Wynand Swanepoel, Johnny Koortzen, Gerrie Odendaal, Hennie Bester, Ben Steyn, Deon Erasmus, Kobus Bothma, and James Davies.

38. *Ibid.*, pp. 44–5, citing 7 January and 19 August 1993 reports given by Basson and Knobel to the Defence Minister.

39. *Ibid.*, pp. 64–5.

40. For the NSMS and its structure, see James Selfe, “South Africa’s National [Security] Management System,” in Cock and Nathan, eds., *Society at War*, pp. 149–56.

41. For the CMC and the “work groups,” see TRC, *CBW Hearings*, testimony of Basson and Schalk van Rensburg. Members of the CMC (and the Reduced Defence Command Council) are listed in Gould and Folb, *Project Coast*, pp. 187–90, citing the minutes of CMC meetings.

42. TRC, *CBW Hearings*, testimony of Basson and Knobel. Compare RSA, Truth and Reconciliation Commission (TRC), *Report* (London: MacMillan, 1999), vol. 2, pp. 521–3.

43. TRC, *CBW Hearings*, testimony of Basson and Knobel. Basson may also have received instructions from SAP Lieutenant-General Lothar Neethling. Although Neethling sought to downplay his role in Coast during his own testimony, other insiders at the TRC hearings and elsewhere provided specific information that revealed his close relationship with Basson and extensive knowledge of CBW issues. See *ibid.*, testimony of Johan Koekemoer; CCR, *Basson Trial*, testimony of Belgian businessman Charles van Remoortere; and Gould and Folb, *Project Coast*, p. 48, citing a 25 March 1993 document on the CBW program prepared by Lieutenant-General C. P. Van der Westhuizen, the former head of SADF counterintelligence who was himself implicated in assorted “dirty tricks.”

44. RSA, National Intelligence Service (NIS), “Staff Paper prepared for the Steyn Commission on Alleged Dangerous Activities of SADF Components,” December 1992, Annexure C, p. 2, serial number 7. Then again, the Binnekring—assuming that it actually existed—may have had nothing to do with Coast’s parallel command structure, since in that NIS document it was described as an “underground organization” that Basson himself had founded. This odd report contains many claims that remain to be corroborated, and appeared at a time of political transition when the NIS and SADF were both vying for influence.

45. For these details concerning Delta G, see TRC, *CBW Hearings*, testimony of Jan Lourens, Johan Koekemoer, and Philip Mijburgh (though the last-named’s is almost worthless); and CCR, *Basson Trial*, testimony of Jan Lourens, Johan Koekemoer, Gert Lourens, Hennie Jordaan, Lucia Steenkamp, Steven Beukes, Barry Pithy, and Gerald Cadwell. It should be emphasized here that chemical Riot Control Agents are not

prohibited by the Chemical Weapons Convention insofar as they are used exclusively for “domestic riot control purposes,” and therefore cannot be said to constitute part of a chemical weapons program unless they are used in other circumstances or against external enemies.

46. For these details concerning RRL, see TRC, *CBW Hearings*, testimony of Jan Lourens, Schalk van Rensburg, Daan Goosen, Mike Odendaal, and Wynand Swanepoel (though the last-named’s testimony was worth little); CCR, *Basson Trial*, testimony of Jan Lourens, Odendaal, James Davies, Riana Borman, André Immelman, Gert Lourens, Van Rensburg, and Goosen.

47. Gould and Folb, *Project Coast*, p. 58.

48. CCR, *Basson Trial*, testimony of Hennie Bruwer.

49. H. J. Bruwer, (10 August 2000, p. 6) *Projek Coast: Forensiese Ondersoek. Aanvullende Verslag*.

50. CCR, *Basson Trial*, testimony of André Immelman, Stiaan Wandrag, Klaus Psotta, Jan Lourens, and Basson; TRC, *CBW Hearings*, testimony of Jan Lourens.

51. CCR, *Basson Trial*, testimony of Stiaan Wandrag and Basson.

52. United Nations, *Report of the Investigations into the Allegations of the Use of Chemical Weapons in Mozambique* (New York: United Nations, 1993); U.S., Department of State, “Recent Chemical Weapons (CW) Use Allegations—Africa,” 9 March 1992 memo (declassified); NIS, “Staff Paper prepared for the Steyn Commission on Alleged Dangerous Activities of SADF Components,” Annexure B, p. 14, serial number ii; TRC, *CBW Hearings*, testimony of Jan Lourens; John Yeld, “SADF bombed Frelimo in chemical weapons test and blamed ANC,” *The Cape Argus* (17 June 1998); Paul Fauvet, “Mozambican claims on 1992 chemical attack now appear correct,” *The Star* (17 June 1998); de Jonge, “The Chemical Warfare Case,” *The (Secret) Truth Commission Files*, November 1997, pp. 6–12.

53. TRC, *CBW Hearings*, testimony of Jan Lourens, Daan Goosen, Mike Odendaal, and Schalk van Rensburg; and CCR, *Basson Trial*, testimony of André Immelman and James Davies.

54. Nass, “Anthrax Epizootic in Zimbabwe,” pp. 198–209; Meryl Nass, “Zimbabwe’s Anthrax Epizootic,” *Covert Action Quarterly* 43, (Winter 1992–93) pp. 12–18, 61; Mangold and Goldberg, *Plague Wars*, pp. 214–23; Burgess and Purkitt, *Rollback of South Africa’s Biological Warfare Program*, pp. 10–11.

55. CCR, *Basson Trial*, testimony of Botes.

56. Several Coast scientists later testified that they were instructed to develop toxic substances that would be both difficult to detect and untraceable to clandestine application. According to RRL lab director Schalk van Rensburg, “[t]he most frequent instruction we obtained from Doctor Basson and Doctor Swanepoel was to develop something with which you could kill an individual which would make his death resemble a natural death, and that something was to be not detectable in a normal forensic laboratory.” See TRC, *CBW Hearings*, testimony of Van Rensburg.

57. The “sales list” was a list prepared by André Immelman of some of the poisonous materials and devices produced by RRL in 1989, various copies of which included his handwritten annotations identifying the recipients of certain distributed items by their nicknames. The list is reproduced in Burger and Gould, *Secrets and Lies*, pp. 34–5.

58. For more information on SADF and SAP “death squads” and their covert activities in South Africa, see the insider accounts found in de Kock, *Long Night’s Damage*, Jacques Pauw, *Into the Heart of Darkness: Confessions of Apartheid’s Assassins*

(Johannesburg: Jonathan Ball, 1997), and Gordon Winter, *Inside BOSS: South Africa's Secret Police* (Harmondsworth: Penguin, 1981); official reports such as RSA, Commission of Enquiry into Certain Alleged Murders, *Report [of the Honourable Mr. Justice L.T.C. Harms]* (Pretoria: Government Printer, 1990), and NIS, "Staff Paper prepared for the Steyn Commission on Alleged Dangerous Activities of SADF Components,"; the scholarly investigations by Keith Gottschalk, "The Rise and Fall of Apartheid's Death Squads," in Bruce B. Campbell and Arthur D. Brenner, eds., *Death Squads in Global Perspective: Murder with Deniability* (New York: St. Martin's, 2000), pp. 229–59, Stephen Ellis, "The Historical Significance of South Africa's Third Force," *Journal of Southern African Studies* 24:2 (June 1998), pp. 261–99, Kevin A. O'Brien, "Counter-Intelligence of Counter-Revolutionary Warfare: The South African Police Security Branch, 1979–1990," *Terrorism and Political Violence* 16:3 (Autumn 2001), pp. 27–59, idem, "The Use of Assassination as a Tool of State Policy: South Africa's Counter-Revolutionary Strategy, 1979–92 (Part II)," *Terrorism and Political Violence* 13:2 (Summer 2001), pp. 107–42, and Charl Schutte et al., eds., *The Hidden Hand: Covert Operations in South Africa* (Pretoria: Human Sciences Research Council, 1998), esp. pp. 167–362; and the journalistic treatment by Patrick Laurence, *Death Squads: Apartheid's Secret Weapon* (London: Penguin, 1990).

59. Gould and Folb, *Project Coast*, pp. 50–2, citing both a 9 January 1981 Loots report (Basson trial exhibit 31B) and a 12 December 1980 S. Serfontein report on Barnacle (exhibit 31C); and CCR, *Basson Trial*, testimony of Theron, Danie Phaal, Trevor Floyd, Jan Anton Nieuwoudt, "Mr. Z" (Gray Branfield), and "Mr. K" (Niel Kriel), yet another ex-Rhodesian soldier and the first commander of the Barnacle unit. Kriel also revealed that Defence Minister Magnus Malan had previously authorized Loots and himself to establish a front company called NKTF Security Consultants to carry out such operations.

60. On TREWITS, see Gottschalk, "Rise and Fall of Apartheid's Death Squads," pp. 241–2; and O'Brien, "Counter-Intelligence for Counter-Revolutionary Warfare," pp. 34–6.

61. CCR, *Basson Trial*, testimony of Immelman, James Davies, Jan Lourens, Mike Odendaal, and Basson, who predictably denied authorizing Immelman to issue these deadly agents; and the "sales list" (TRC document 52). Immelman's annotations identifying the recipients are included in the partial "sales list" reprinted in Hooggeregshof, *Akte van Beskuldiging*, pp. 250–1.

62. Jeffrey M. Bale's BW and CW chronologies on the NTI website: [www.nti.org/e\\_research/profiles/SAfrica/Biological/2435.html](http://www.nti.org/e_research/profiles/SAfrica/Biological/2435.html) (BW), and [www.nti.org/e\\_research/profiles/SAfrica/Chemical/2446.html](http://www.nti.org/e_research/profiles/SAfrica/Chemical/2446.html) (CW).

63. Gould and Folb, *Project Coast*, pp. 115–18, 134–41.

64. *Ibid.*, p. 217, citing an early 1990s Knobel document that provided a chronology of the Croatian transactions. Therein Knobel notes that it was the CMC that approved the plan to expedite these procurement activities.

65. On this copying process, see TRC, *CBW Hearings*, testimony of Knobel and Philip Mijburgh; CCR, *Basson Trial*, testimony of Ben Steyn.

66. For the destruction of the chemical agents, mainly the illegal drugs used for "calmatives" research, see Gould and Folb, *Project Coast*, pp. 215, 217–18, citing the 29 January 1993 CMC meeting minutes and the 30 March 1993 De Bruyn certification document; and TRC, *CBW Hearings*, testimony of Basson and Knobel. Later attempts to acquire specifics about the disposal flights proved fruitless.

67. Gould and Folb, *Project Coast*, p. 214, citing interviews with Goosen and Odendaal; personal communication with Ilan Ziv, 17 March 2003. See also Joby Warrick, "Biotoxins Fall into Private Hands," *Washington Post* (21 April 2003), who notes that in the course of secret July 2002 meetings with US officials, Basson himself admitted that

“people working in the labs had probably taken things with them,” making it impossible for him to account for all the microbes.

68. Gould and Folb, *Project Coast*, p. 222, alluding to their interviews with ex-RRL scientists.

69. For these two points, see *ibid.*, pp. 210 (citing a 14 June 2001 interview with former US ambassador Princeton Lyman, who was present at the 1994 and 1995 meetings), 213–14 (the above quote appears on p. 213).

70. *Ibid.*, pp. 225–6.

71. In addition to the trunks he had arranged to have stored at his friend Samuel Bosch’s home, he stored two other trunks in a storage facility. In that same facility, which had been rented by his Rhodesian associate Bill Grieve, the “lost” CCB archives were also found. Personal communication with Robert Block, February 2003.

72. Charlayne Hunter-Gault, “S. Africa sending arms experts to Iraq,” *CNN News* (18 February 2003); “SA experts start work in Iraq,” *BBC News Online* (24 February 2003).

73. Gould and Folb, *Project Coast*, pp. 209–11, citing a 14 June 2001 interview with US ambassador Princeton Lyman and an 18 August 1994 Knobel briefing on Coast and the BTWC and CWC for President Mandela.

74. For details on Basson’s extensive foreign contacts and activities, see CCR, *Basson Trial*, testimony of Basson, Hennie Bruwer, Charles van Remoortere, Bernard Zimmer, Sol Pienaar, David Chu, David Webster, and many others. The background of many of his interlocutors is exceedingly interesting, to say the least. E.g., Peter Regli and some of his subordinates were implicated in all sorts of illegal political and economic activities by the Swiss government, even though in the end they were absolved of criminality by parliamentary and judicial investigators. Compare Martin Stoll, “Peter Regli unterhielt Kontakte auch zu Bassons Boss,” *Sonntagszeitung* (28 March 1999); Marco Kalmann, “L’affaire Bellasi et le mythe de la perfection Suisse,” *Largeur.com* (23 August 1999); Yvette Jaggi, “Affaire Regli: Sous enquête mais pas sous pression,” *Domaine Publique* (7 September 2001); Bruno Vanoni, “Regli rehabilitiert—und abgesetzt,” *Blue Win* (1 November 2001); and the official Swiss government report authored by Rainer J. Schweizer, *Rapport final de l’enquête administrative dans l’affaire “Service du renseignement / Afrique du Sud” au Département fédéral de la défense, de la protection de la population et des sports (DDPS)*, 16 December 2002, especially pp. 88–147.

75. TRC, *CBW Hearings*, testimony of Jan Lourens; Gould and Folb, *Project Coast*, pp. 207–8, citing interviews with Jan Lourens and Immelman.

76. Personal communications with Robert Block of the *Wall Street Journal*, Ilan Ziv, Joby Warrick of the *Washington Post*, and Marlène Burger of the Centre for Conflict Resolution, December 2002–April 2003. See further Joby Warrick and John Mintz, “Lethal Legacy: Bioweapons for Sale,” *Washington Post* (20 April 2003); Joby Warrick, “Biotoxins Fall into Private Hands,” *Washington Post* (21 April 2003); Robert Block, “A Cautionary Disarmament,” *Wall Street Journal* (31 January 2003); and Sam Sole, “SA general touted anthrax abroad,” *Mail & Guardian* (25 January 2003). A contract for the first deal was signed on 5 May 2002 by Minnaar, Zlokie, and Goosen. Unfortunately, the accounts of the second deal provided by various informants do not entirely jibe. Note also that, according to Ziv, Minnaar was apparently trying to peddle missiles, laser guns, cases of depleted uranium, and possibly nuclear detonators, not simply BW agents.

77. For EO, see Pech Khareen “Executive Outcomes—A Corporate Conquest,” in Jakkie Cilliers and Peggy Mason, eds., (1999) *Peace, Profit or Plunder? The Privatisation of Security in War-Torn African Societies* (Halfway House: Institute for Security Studies), pp. 81–109. For EO’s links to Minnaar’s MTS, see *ibid.*, p. 99. For Minnaar’s association

with the CCB, see an undated 1998 NIA report entitled "The CCB and the Generals," which can be found in "Secret South African Disruption" <[www.cryptome.org/za-disrupt.htm](http://www.cryptome.org/za-disrupt.htm)>.

78. On Minnaar and his death, see Sole, "SA general touted anthrax abroad"; and "SA: Safe haven for al-Qaeda?," *News24* (10 December 2002).

79. See, e.g., *Vrye Weekblad* (30 November 1990) and *Rapport* (18 November 1990), both cited by Johann van Rooyen (1994) *Hard Right: The New White Power in South Africa* (London and New York: I.B. Tauris), pp. 96–7, 199; and Arthur Kemp, (1990) *Victory or Violence: The Story of the AWB* (Pretoria: Forma, 1990), p. 47.

80. Some indications of collusion between personnel from covert SADF components and the paramilitary right are alluded to in NIS, "Staff Paper prepared for the Steyn Commission on Alleged Dangerous Activities of SADF Components," p. 5, Annexure A, p. 5, and Annexure B, p. 12. For some interesting details about the recent wave of Afrikaner right-wing terrorism, see Mark Klusener, "South African 'Couplotters' May Have Links with US Groups," *CNS News* (23 September 2002); and Basildon Pela, "Far right in South Africa foiled in plot to poison water in townships," *The Independent [London]* (25 November 2002).

81. Mangold and Goldberg, *Plague Wars*, pp. 250, 254, 277–9. The authors imply that Die Organisasie was a jazzier name for Third Force elements operating abroad, but this is probably an oversimplification.

82. Edward Humes, (July 2001) "The medicine man," *Los Angeles Magazine*, pp. 95–6. The Afrikaans term *kaffir*, which oddly derives from the Arabic word for "infidel" (*kāfir*), is equivalent to "nigger" in the US.

83. Compare CBS News, "'Dr. Death' and His Accomplice," *60 Minutes* (7 November 2002); Jeff Collins, "Ford advised S. Africa on warfare devices," *Orange County Register* (15 March 2000); Arthur Allen, "Mad Scientist," *Salon Magazine* (26 June 2002), <[archive.salon.com/health/feature/2000/06/26/biofem](http://archive.salon.com/health/feature/2000/06/26/biofem)>; and Rachel Bell, "Larry Ford," Court TV's Crime Library, <[www.crimelibrary.com/terrorists\\_spies/larry\\_ford/1.html](http://www.crimelibrary.com/terrorists_spies/larry_ford/1.html)>.

84. Humes, "Medicine Man," pp. 166–8. On the militia connection, see *ibid.*, p. 97; Michael Reynolds, "Memo on Larry Ford and the Far Right," unpublished report, 2001.

85. On his CV, Hatfill claimed that he served with C Squadron of the Rhodesian SAS, whereas in a note to his Missouri high school newspaper he indicated that he saw action with the Selous Scouts. Neither of these claims has been confirmed, and could be false given all the other information he apparently fabricated on his CV. Even so, at least one unnamed SADF veteran claims that Hatfill did in fact serve in the Selous Scouts, "mainly as an 'operational medical orderly,'" and added that it was the Scouts who "decided he should study medicine because they felt he would serve them better as a field surgeon than as a medic." 24 January 2003 email forwarded to the author by Stephen Dresch of Forensic Intelligence. Moreover, in the memoirs of Peter McAleese, a former member of the Rhodesian SAS, the author mentions that a "Steve Hartful"—undoubtedly Hatfill—worked for the Rhodesian police's Special Branch, one of the forces that played a significant role in the covert Rhodesian CW program. Compare Hatfill CV, p. 3; and Peter McAleese, *No Mean Soldier: The Story of the Ultimate Professional Soldier in the SAS and other Forces* (London: Cassell & Co., 1993), pp. 163–4.

86. See, e.g., Tony Weaver, "US anthrax suspect had links with AWB," *The Herald* (1 July 2002); and Marlène Burger, "Murky past of a US bio-warrior," *Mail & Guardian* (15 August 2002). For more on the AWB, see Kemp, *Victory or Violence*; and P. J. Kotzé and C. P. Beyers, *Die opmars van die AWB* (Morgenzon: Oranjewerkers Promosies, 1988). For the entire Afrikaner paramilitary right in South Africa, see Martin Schönsteich and Henri Boshoff, *Volk, Faith and Fatherland: The Security Threat Posed by the White Right* (Pretoria: Institute for Security Studies, 2003).

