

SOUTH AFRICAN CIVIL DEFENCE ORGANISATION
AND ADMINISTRATION WITH PARTICULAR REFERENCE
TO THE CAPE PENINSULA

by

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requirements of the Degree of Master
of Public Administration

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If it be now, 'tis not to come;
if it be not to come, it will be now;
if it be not now, yet it will come:
the readiness is all . . .

[Shakespeare: Hamlet V.ii.]

DEDICATION

This thesis is affectionately
dedicated to my parents

PREFACE

Apart from the threats that face South Africa, the devastating flood disaster which struck Laingsburg on January 25, 1981 has added to the importance and timeliness of this study.

The Laingsburg disaster serves to remind man of nature's threat to man's existence. It also serves as a reminder that disasters do occur, and that the accompanying destruction and tragedy are so profound that man cannot express it with his limited system of reference.

The flood added another page to the evergrowing chronicle of disaster, death and destruction. While events such as the Laingsburg disaster may be catalogued and then forgotten, to some the deep experience of pain remains indelibly inscribed on the parchment of human memory - a script that fades less easily.

In the wake of disasters it would follow that man, in an endeavour to avoid death and destruction, would develop means for his protection. In some instances yes, in most no. The greatest tragedy for civil defence is that when people die and suffer we are alert - but we don't always remain so.

ACKNOWLEDGEMENTS

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Cape Town, April 1981

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LIST OF ABBREVIATIONS

CPA	Cape Provincial Administration
CPLAAS	Cape Peninsula Local Authorities Ambulance Service
CPS	Civilian Protective Services
ESCOM	Electricity Supply Commission
FAP(s)	First Aid Post(s)
Hamnet	Radio Amateur Emergency Communication System
HF	High Frequency
kWh	Kilo Watt hour
MAP(s)	Medical Aid Post(s)
MCV	Mobile Control Vehicle
MEC	Member of the Executive Committee
Metro	Metropolitan Rescue Organisation
Metro c.d.	Metropolitan Local Authorities civil defence service
Metro Control	Emergency Services Centre
MMAP(s)	Mobile Medical Aid Post(s)
NSRI	National Sea Rescue Institute
PECSAR	Permanent Committee on Search and Rescue
SADF	South African Defence Force
SAP	South African Police
SARP	South African Railway Police
VHF	Very High Frequency
SATEPSA	South African Telecommunication and Electricity Power Supply Authority
WO	Welfare Organisation
4WD	Four-wheel drive

1

INTRODUCTION

CONTENTS

1. THE CIVIL DEFENCE PERSPECTIVE
2. INTENT
3. DEFINITIONS
4. RESEARCH METHODOLOGY
5. INTRODUCTION TO THE SOUTH AFRICAN CIVIL DEFENCE STRUCTURE
6. NOTES

1. THE CIVIL DEFENCE PERSPECTIVE

- 1.1 The greatest disaster ever recorded is contained in Genesis 6 verses 19 and 22:

And the waters prevailed exceedingly upon the earth; and all the high hills, that were under the whole heaven, were covered.

All in whose nostrils was breath of life, of all that was in the dry land, died.

- 1.2 Since then the catalogue of death and destruction has been added to at an increasing tempo.

- 1.3 The classic disasters such as the 1340's "Black Death" bubonic plague which killed 25 million; the 1556 earthquake in China which killed 800 000; the 1666 "Great Fire" which destroyed a large part of London and the 1917 - 1919 Influenza pandemic which killed 20 - 30 million people serve to represent nature's threat to the existence of mankind.¹

- 1.4 But man has also become a threat to his own existence. It may be claimed that one of the first fruits of civilisation is warfare. The rapid technological advance over the years has greatly increased man's propensity for courting disaster.

- 1.5 The first recorded armies were formed by the Sumerians over 5 000 years ago.² The campaigns of destruction by legendary leaders and their forces have largely shaped mankind's history.

- 1.6 In no previous century has man's existence been threatened to the extent that it is in the present century. This is chiefly due to man's vastly increased potential for mass destruction.

- 1.7 The First World War; the Russian Revolution; internal conflicts in Russia and China; the Second World War; the Holocaust; and other twentieth century conflicts account for approximately 110 million deaths this century.³

- 1.8 To this figure should be added the deaths caused by aircraft, rail and shipping disasters; various forms of terrorism and other disasters peculiar to this century.
- 1.9 In the United States of America disasters which claim more than 25 lives have been responsible for the death of approximately 1 300 people every year this century.⁴
- 1.10 Judging by the afore-mentioned threats to man's existence the raison d'être for man's defence against or protection from destruction is more than justified.
- 1.11 Throughout the ages man has sought to employ his increasing ingenuity, skills and equipment to secure his defence and protection against disasters. He has employed technology and science to considerably reduce the threat of certain disasters. Medicine, for one, has greatly reduced the threat of disease.
- 1.12 While man has made technological advances his specialization has increasingly made him dependent. Thus the State to-day is responsible for the protection of its citizens and has provided a host of services designed to protect its citizens from disasters.
- 1.13 During the past ten years man has witnessed the death and destruction caused by a variety of natural disasters. He has also witnessed the hijacking of aircraft and trains; the siege of schools and embassies; civilian aircraft being shot down; key political and industrial figures being kidnapped and shot and bomb blasts which have nearly become the order of the day.
- 1.14 In South Africa major disasters are traditionally infrequent (see 3.2). However, it would be careless and foolhardy to infer from the frequency of disasters that disasters carry a low risk factor. This is unfortunately a premise which serves as the foundation of many South Africans' neglect of civil defence. Similarly, civil defence has often been exclusively linked to civil unrest and in so doing has served to exonerate a certain section of the country's population from participating in civil defence.

- 1.15 The risk of mass casualties is probably at its highest at present due to the complexity of modern technology, high density city dwelling and the social order of the day.
- 1.16 In addition to the increased threat posed by other types of disasters, South Africa faces the major risk of civil unrest due to growing socio/political polarization. Political and military leaders both outside of and within South Africa have borne testimony to this fact (see 5.1.5 and 5.6.10).
- 1.17 It is thus important for South Africa to develop a civil defence system capable of providing the protection its citizens would need in the event of a disaster.
- 1.18 This research is very timely as it was conducted at a stage of increased risk and during the implementation of the comprehensive civil defence legislation which was introduced in 1977.

2. INTENT

- 2.1 This thesis sets out to review civil defence in South Africa, with particular emphasis on the Cape Peninsula.
- 2.2 It aims to provide a critical analysis of the organisational and administrative principles involved in civil defence.
- 2.3 Further, it is the intention that the thesis serves as a general guide to the structure and function of civil defence in South Africa and the Cape Peninsula in particular.
- 2.4 The above-mentioned intention can be served by tracing the development of civil defence in South Africa; determining the probability of disasters; presenting the legal framework within which civil defence operates; by providing a review of the organisational structure and function of the various public sector civil defence agencies; a disaster case study; and by a critical evaluation of civil defence in its broader context.

- 2.5 In so doing it is hoped that the administrators of civil defence and the civil defence system will draw some measure of benefit from the comments and evaluation contained in this study.

3. DEFINITIONS

- 3.1 The concept of civil defence varies from one country to another. In the Union of Soviet Socialist Republics for instance, civil defence is almost exclusively linked to nuclear warfare (see Addendum 2.5) whereas in South Africa nuclear warfare is the disaster least associated with civil defence.
- 3.2 In South Africa the concept of civil defence is often misinterpreted. It has been incorrectly ascribed the status and function which properly belongs with the armed forces, the police and vigilante movements.
- 3.3 In terms of section 3(1) of the Civil Defence Act, 1977 (Act 67 of 1977) any form of military or armed action is clearly divorced from the aims and functions of civil defence in South Africa (see 4.2.3). Civil defence in South Africa

... is not, as many people think, a sort of civilian company of home defenders or a home guard, but the co-ordinated utilisation of all available means and manpower to cope with the consequences of disasters.⁵

Similarly

it is only concerned with saving life and property, alleviating distress and maintaining essential services during and after disasters, and is not involved with armed defence against enemy attack, preparation to resist enemy action, or precautionary measures against terrorism or any other enemy action.⁶

- 3.4 Muller defines civil defence as

a distress relief action aimed at combating or relieving the adverse consequences of any form of disaster. It implies mainly those steps taken during or after a disaster in order to save lives, protect property and maintain those essential services which are indispensable for the survival of a civilised and well-ordered community.⁷

- 3.5 For the purposes of this thesis the author has defined civil defence as follows:

Civil defence is constituted by the non-combatative, combined and co-ordinated organisational effort as an extension of the normal functions of various levels of government, emergency services, volunteer organisations and members of the public in an endeavour to plan for, relieve and arrest the distress caused by a disaster which is of such magnitude that existing services cannot function effectively without support.

- 3.6 The definition of a disaster as defined in terms of section 1 of the Act is adopted for the purposes of this study (see 4.2.1).
- 3.7 The boundaries of the Cape Peninsula include the eighteen local authorities which form the Metropolitan Area of Cape Town or the Greater Cape Town as it is also known (see 7.6.2). These boundaries serve to broadly define the Cape Peninsula.
- 3.8 For the purposes of the role of local authorities the Cape Peninsula is restricted to the areas of jurisdiction of the two largest local authorities, namely the City Council of Cape Town and the Divisional Council of the Cape.

4. RESEARCH METHODOLOGY

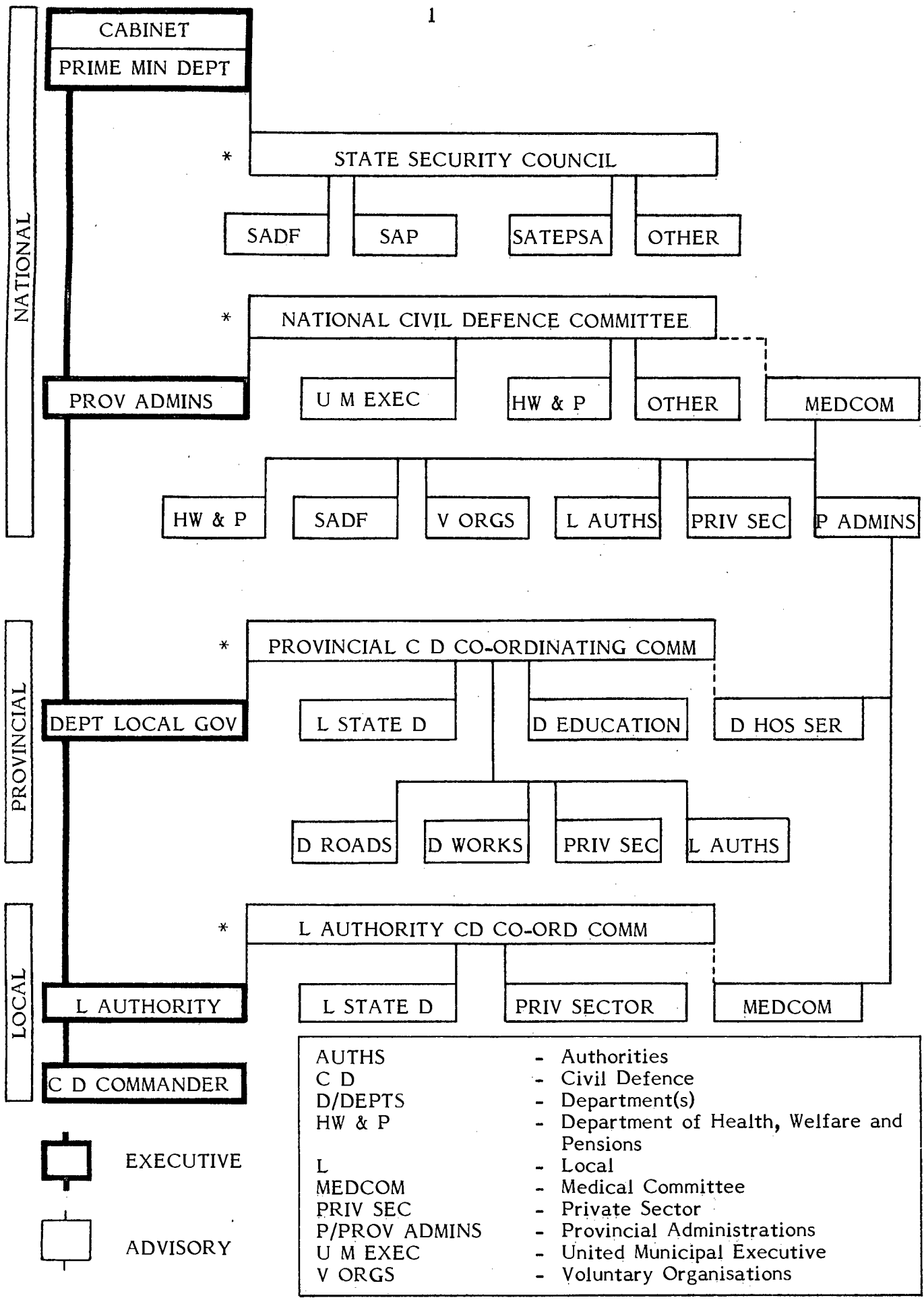
- 4.1 The primary methods of research was documentary analysis supplemented by interview techniques.
- 4.2 Documentary research material was obtained in South Africa and from other selected countries.
- 4.3 Extensive interviews were conducted with civil defence and related officials throughout South Africa. These interviews were mostly accompanied by in situ investigations of civil defence and related premises and equipment.
- 4.4 Major research problems were encountered. The development of civil defence during the period 1975 to 1980 has been more rapid than in any other previous five-year period with the exception of the Second World War.

- 4.5 At the commencement of research in 1975 civil defence was in its infancy and as a result of the inadequacy of the then prevailing statutory provisions (see 2.3.13) and other factors, civil defence in South Africa in general, and in the Cape Peninsula in particular, was absent, inadequate or non-viable. Under these circumstances research was deferred to and in certain instances repeated in 1979 - 1980.
- 4.6 While civil defence is in a more advanced stage of development in 1980, it has not yet reached maturity. It will be noted that some of the civil defence agencies dealt with are in various stages of development. As such, and in its present form being a new development, civil defence is, in general, poorly documented, often misunderstood and constantly changing. While not affecting the study to any large measure, these variables made the research more difficult and hampered effective evaluation.
- 4.7 As one of the first studies undertaken in the field of South African civil defence organisation and administration no previous research methods and findings were available for inclusion in, and to serve as a guide for, this study.
- 4.8 As a result of the extensive ambit of civil defence and the brevity of research at this academic level certain parameters have been applied to this study.
- 4.9 While a large portion of civil defence activity could be performed by volunteer organisations and the public, this study is restricted in the main, to the infra structure of civil defence, the provision of which is the responsibility of the public sector. Many branches of the various levels of government are involved in civil defence to a greater or lesser extent. Only those which fulfill a major role have been included in this study.
- 4.10 While being desirable, effect could not be given to the inclusion of all the Metropolitan local authorities. The two largest local authorities, the one a municipality and the other a divisional council, serve to represent the most common forms of local authority in South Africa. These authorities also form the greater portion of the Metropolitan area.

- 4.11 This study is concerned only with the organisational and administrative concepts of civil defence. Although certain aspects of civil defence can be related to the overall security of the State this study specifically excludes any reference to, or material, that may in any way, either directly or by inference, be linked, or construed to be linked, to the security of the State.
- 4.12 The contents of this thesis refers to the organisation and administration of civil defence during 1980 unless otherwise stated.

5. INTRODUCTION TO THE SOUTH AFRICAN CIVIL DEFENCE STRUCTURE

- 5.1 As it is not within the ambit of this thesis to deal with every component of the South African civil defence structure a brief description of the structure as a whole is provided to place the material that follows in the body of the thesis in perspective. A diagram representing the structure of civil defence in South Africa is found in Fig 1.
- 5.2 The structure consists of executive, advisory and co-ordinating components at national, provincial and local level.
- 5.3 The executive components are the Cabinet, the Prime Minister's office and the Provincial Administrations (national); the Provincial Administration Departments of Local Government (provincial) and various local authorities and civil defence commanders (local).
- 5.4 In addition to their advisory function, the State Security Council and the National Civil Defence Committee (national); the Provincial Civil Defence Co-ordinating Committees (provincial) and the Local Authorities Civil Defence Co-ordinating Committees (local) serve as co-ordinating bodies.
- 5.5 Among other, the following serve in an advisory capacity, namely, the South African Defence Force, the South African Police, the South African Telecommunication and Electrical Power Supply Authority, the United Municipal Executive, the Department of



Modified from: Provincial Administration of the Cape, "Burgerlike Beskerming: Adviserende Struktuur", Cape Town, 1980

FIG 1

Health, Welfare and Pensions, the Provincial Administrations, voluntary organisations and the private sector (national); local state departments, Provincial Departments of Education, Hospital Services, Roads, Works, the private sector, and local authorities (provincial); and local state departments and the private sector (local).

- 5.6 Whilst referring to the above-mentioned bodies this thesis deals in the main with the structure and function of those bodies which provide the civil defence infra-structure namely, the South African Defence Force; the Department of Health Welfare and Pensions; the Provincial Administration of the Cape of Good Hope; the City Council of Cape Town and the Divisional Council of the Cape.

6. NOTES

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2

DEVELOPMENT OF CIVIL DEFENCE IN SOUTH AFRICA

CONTENTS

1. INTRODUCTION
2. SECOND WORLD WAR PERIOD 1939 - 1946
3. POST-SECOND WORLD WAR PERIOD 1947 - 1977
4. COMMENTS
5. NOTES

1. INTRODUCTION

- 1.1 In the past, South Africa's history has not been fraught with major disasters and military aggression with the result that the development of civil defence has been tardy.

Little can be traced during the early period of this country's history which bears resemblance to civil defence as it is understood today.

- 1.2 The chief tasks assigned to Jan van Riebeeck on his arrival at the Cape in 1652 were to build a fort for defence and cultivate produce for passing ships. South Africa has since the erection of the Castle relied on an indigenous form of militia, the "burgher militia" or citizen force. This force consisted of citizens who formed the second line of defence after the regular troops. According to Botha, "The country was repeatedly called upon . . . to protect life and house".¹

Most protective services prior to World War II were undertaken by the militia, the churches and welfare organisations.

- 1.3 The advent of World War II and the threat of an attack brought about the establishment of a formal protective service which was to serve as the foundation of South African civil defence.

Since the war, some disasters and a notable increase in civil unrest brought about the establishment of a more sophisticated civil defence service. The emphasis on civil defence varies between the two periods under review because of the different circumstances prevailing at the time.

2. SECOND WORLD WAR PERIOD 1939 - 1946

- 2.1 On September 6, 1939 South Africa declared war on Germany.²
- 2.2 Aerial bombardment of the civil populations created an urgent need for organisations capable of protecting or minimizing the

effects of aerial bombardment of civilians. The establishment of various "protective organisations" and the death of 1 436 Londoners during the raid on London on May 10 and 11, 1940³, led in part to the establishment of similar organisations in South Africa. It was during the Second World War that civil defence, as it is known today, originated.

- 2.3 Some units that were established during the war were wrongly considered to be civil defence units. For instance the Essential Services Protection Corps was established for "Adequate protection for vital points throughout the country . . . and to free army units of guard duties."⁴ The National Volunteer Brigade and Civil Guard were used mainly for internal security duties.⁵ South Africa did not have an equivalent to the British Home Guard or the German Landsturm.⁶
- 2.4 Regulations No's 36 and 37 of the National Emergency Regulations, which made provision for the Minister of Defence or any person authorized by him to provide civilian protective measures, were embodied in Proclamation No 35 of 1940.⁷ The measures were later specified by way of an amendment to include protection of property and persons in the event of an attack from the air or sea. Provision was also made for the establishment of the Civilian Protective Services under the jurisdiction of the Minister of the Interior.⁸ The Government instituted a Directorate of Civilian Protective Services to co-ordinate the activities of the local authorities.⁹ The Director and Assistant Director of Civilian Protective Services were appointed with military rank whilst the Chief Area Commandants (in most cases mayors in their personal capacity and not under the control of the local authorities) were appointed by the Government in a civilian capacity.¹⁰
- 2.5 Understandably, the Civilian Protective Services were designed to meet the needs created by war as clearly indicated by Hamlin:¹¹

The object of every Civilian Protective Service should be to organise all the national resources to deal with any emergency arising from war conditions such as: Air Raids, Incendiarism, Havoc, Panic, Riots, causing damage to life and property or disruption of civilian services.

Further Hamlin distinguishes between preventive services - those of a military nature such as anti-aircraft detection, guns, fighters which were the Government's responsibility and the curative services such as the establishment of warning systems, black-outs, evacuation routes, anti-gas measures, shelters, information bureaus, warden systems, rescue squads, demolition squads, auxiliary fire squads, medical services which were the responsibility of the local authorities.

- 2.6 It did not take long for various persons and bodies to protest at the condition of the Civilian Protective Services. In an editorial The Forum¹² stated:

It is no exaggeration to say the C.P.S. in South Africa is in a most deplorable state. Co-ordination is almost completely lacking. There is a general deficiency of protective equipment, and in certain centres organisation has been poor. Most of all, jealousies and jockeying for authority have impaired efficiency and dampened enthusiasm in the rank and file. What is required above everything else is a strong lead from the Government.¹²

The Government, as previously indicated appointed chief area commandants and expected the local authorities to finance the services without having control of them. Brinton¹³ stated that:

Not only have Local Authorities in this country laboured under an unequal distribution of the financial burden but the efficiency of the Civilian Protective Services organisation has been seriously impaired by lack of Government support.

Furthermore Pringle¹⁴ continued:

... there appeared to be no necessity for imposing upon our local authorities a semi-military super-structure for the performance of civil duties calling for technical knowledge and executive ability which the local Council, through their officials, were completely capable of providing.

- 2.7 On the other end of the scale the authorities in Port Elizabeth were agitating for complete military control of services, for by now, with the establishment of a South African Railways and Harbours Service and a Police Service "... there are diversified

commands and should an emergency occur operations may be seriously hampered by the absence of preparation under a unified command."¹⁵

- 2.8 Various forms of action to be taken during an attack were brought to the attention of the public without having seriously considered the negative results of such instructions. For example, the public were asked to fill their baths during an attack with the result that no water pressure would be available to operate fire hydrants.¹⁶ A further proposal for 40 000 citizens of Cape Town to "take to the mountains" during an attack would have brought about confusion, congestion of traffic and mass panic.¹⁷
- 2.9 The "black-out" measures introduced by the Civilian Protective Services came under attack. Mentioning statistics applicable to London for December 1940, Brough¹⁸ revealed that the cost of life during black-outs was 668 compared to 356 during daylight.
- 2.10 With exceptions, the problem of public apathy was severe, particularly in Cape Town and Durban.¹⁹
- 2.11 Cape Town remained calm during the war. This was probably one of the reasons for apathy. When two military aircraft crashed in Claremont during the war the residents of Cape Town remained calm in spite of the fact that they thought that it was an air raid. A correspondent stated that "Their calm acceptance of this idea is perhaps an indication of the comparative phlegm with which Cape Town - always an unhysterical city - would endure a real raid."²⁰
- 2.12 In spite of the difficulties encountered in establishing effective protective services, "... there were over 80 000 attested members of the C.P.S. ... in 167 branches in the Union. In the Cape Town area alone ... over 8 500 men and women ... were engaged."²¹
- 2.13 Although a call was made by Brinton²² to retain the services after the war to cope with other civil emergencies, the Civilian Protection Services disbanded after the war.²³

- 2.14 The efficacy of the Civilian Protective Services was never put to the test. South Africa was fortunately never attacked.
- 2.15 This period was, however, the most significant in the development of civilian defence, surpassed only by the development in the late 1970's.

3. POST-SECOND WORLD WAR PERIOD 1947 - 1977

- 3.1 The collection of funds for the relief of victims of disasters was subject to the provisions of the Welfare Organisations Act, 1947 (Act 40 of 1947). In terms of section 8 permits were required before contributions from the public could be collected. Such permits could be issued by a magistrate for a period not exceeding ninety days if the circumstances requiring such a collection were transitory and the objects of such a collection would be frustrated by the delay in acquiring registration as welfare organisation.

In terms of section 9 welfare organisations could be registered which enabled such organisations to collect contributions from the public without permits.

- 3.2 The Roodepoort tornado re-activated the public's and authorities' interest in providing measures to cope with disasters and led to the establishment of the Roodepoort Tornado National Relief Fund.²⁴ The remaining funds of the Roodepoort Tornado National Relief Fund were later transferred to the National Relief Fund which was established on 16 May 1950.²⁵ It was registered in terms of the Welfare Organisations Act, 1947 with the registration number WO 938. One of the objects of this fund was to render:

... financial assistance to any committee or organisation which in terms of the requirements of the Welfare Organisation's Act, 1947 functions to raise funds for the purposes of assisting persons who have suffered damage or loss in such a measure and to such an extent that the public sympathy had been roused thereby.²⁶

By implication this meant that the fund could only render assistance where entire communities had been struck by disasters and not in the case of a single person suffering damage or loss.

The fund obtained its assets from collections and the transfer or remaining assets upon the dissolution of welfare organisations.

A national committee of seven members was appointed by the Minister of Social Welfare to manage the affairs of the Fund.²⁷

The fund served primarily as a reserve fund and to co-ordinate fund-raising for relief purposes on a national level. It was however, restricted, in that, it could only make funds available to organisations or funds which were registered in terms of the Welfare Organisations Act, 1947.²⁸

3.3 Further funds were established, inter alia, The External Relief Fund (WO 2229) in 1959 for refugees, The National Mine Disaster Fund (WO 2417) in 1961 for the victims of the Coalbrook Mine Disaster and The Effingham Rail Disaster Relief Trust Fund (WO 2798) in 1966 for the victims and families of the Effingham Rail Disaster.²⁹

3.4 Under the provisions of the National Welfare Act (Act 79 of 1965), which were very similar to those of the previous Act, further funds were established such as the Boland Disaster Fund (WO 2939) in 1969 as also temporary funds established in terms of section 18 such as the Peruvian Earthquake Fund, The Biafra Relief Fund and the Port Elizabeth Flood Disaster Relief Fund.³⁰

3.5 After 1960 - the year of the Sharpeville and Congo crises - planning for civil defence was revived. As a result of an investigation, which was launched in 1954, the Government established a Division of Emergency Planning on December 1, 1962.³¹ Further,

It was established under the Minister of Justice, as a new Division of the Department of Justice. Besides the South African Police and the Armed Forces it constitutes a third service charged with the specific national responsibility for measures safeguarding civilians against the consequences of enemy action and natural disasters.³²

A national survival plan was adopted. It made provision for informing and instructing the public about possible threats and the

measures that could be taken in the event of a disaster, and for the establishment of emergency plans and services.³³

Efforts at implementing the plan at all levels of government and involving the public, as it purported to do, met with little success as local authorities gradually became disinterested.³⁴

3.6 The first statutory provisions for the establishment of civil defence organisations appeared in the Civil Defence Act, 1966 (Act 39 of 1966).

3.6.1 The Act made provision for the establishment of a Directorate of Civil Defence within the Public Service under the control of the Minister of Justice.³⁵

3.6.2 The objects of the Directorate were,

... to take measures ... for the purpose of -

- (a) providing the Republic and its inhabitants with regard to a state of emergency with the greatest possible measure of protection and assistance, and
- (b) combating in the most effective manner civilian disruption during a state of emergency.³⁶

To attain these the Minister was provided with the power to take steps required with regard to the various emergency services and to take control of movable or immovable property during a state of emergency.

3.6.3 In terms of section 4 the State was provided with indemnity against loss of damage sustained to life or property as result of action taken in terms of the Act.

3.6.4 Other notable provisions included ministerial delegation of powers (section 5), compulsory training and service (section 9) and training institutions (section 12).

- 3.6.5 The Civil Defence Amendment Act, 1967 (Act 69 of 1967) transferred the control of the Act to the Minister of Defence.
- 3.6.6 The Civil Defence Act was further amended by the Defence Amendment Act, 1967 (Act 85 of 1967) to further exclude certain military personnel from civil defence training.
- 3.6.7 The Civil Defence Amendment Act, 1969 (Act 5 of 1969) amended the Civil Defence Act, 1966 considerably.

The Directorate and position of Director of Civil Defence were abolished. In terms of section 3A the Minister was empowered to employ any person including officers attached to the Provincial Administration, to assist in the administration of the Act. In addition, members of the South African Defence Force could be required to perform duties under the Act as if they were duties under the Defence Act, 1957 (Act 44 of 1957).

- 3.7 A Directorate of Civil Defence was established within the South African Defence Force for overall planning and co-ordination. It became the responsibility of the army commands to activate and advise local authorities in the establishment of civil defence organisations.³⁷
- 3.8 By March 1976 of the 627 local authorities identified for civil defence purposes 244, or 39 per cent, had appointed heads of civil defence and completed their planning; 134, or 21 per cent, had appointed heads of civil defence and their planning was at an advanced stage; 162, or 26 per cent, had appointed heads but their planning was in the initial stages; and 87, or 14 per cent, had not appointed heads nor had they commenced planning.³⁸
- 3.9 In an editorial in Social Work/Maatskaplike Werk a plea was made for the establishment of more effective machinery which could come into operation immediately in the event of a disaster to best utilise, co-ordinate and channel resources.³⁹

- 3.10 In terms of section 1 of the Commissions Act, 1947 (Act 8 of 1947) the State President appointed the Commission of Inquiry into the collection of Voluntary Financial Contributions from the Public (Van Rooyen Commission) on 14 August 1974.⁴⁰
- 3.11 The Van Rooyen Commission reported in 1976 that in spite of the fact that many welfare organisations rendered emergency relief during disasters the objects of welfare organisations were different from those of disaster relief funds and therefore a central co-ordinating body was required to administer disaster relief.⁴¹
- 3.12 The Commission recommended, inter alia, the establishment of a central disaster fund, local ad-hoc committees to co-ordinate relief at a local level and that moneys collected throughout the country be deposited in one banking account.⁴²
- 3.13 The civil unrest of 1976 brought about renewed concern for a more effective civil defence service and led the Minister of Defence, Mr P.W. Botha to state in Parliament in 1977 that,⁴³

Serious shortcomings in legislation on civil protection had been discovered after local authorities had been activated to take over the task . . . [and] New legislation for civil protection in a time of disaster or internal riots had been found essential.

A select committee of Parliament recommended that statutory provision be made for the compensation of people involved in civil defence in the event of their injury or death. The committee was of the opinion that the lack of such a provision had a "restrictive effect on the development of civil defence services."⁴⁴

4. COMMENTS

- 4.1 Throughout the development of civil defence in South Africa major development was always as result of disasters or threats of disasters such as the Second World War; the Roodepoort tornado; the Congo and Sharpville crises; and the civil unrest during 1976.

The urgent pleas for the protective services to remain active after the War were not heeded as the threat of disaster was not great. This inability to plan for and provide effective civil defence services (for who could ensure permanent absence of disasters) pervaded the development throughout.

- 4.2 A government lead was requested during the War largely as result of the confusing division of labour and responsibility. This situation continued throughout the post-war period in spite of major crises. The responsibility for civil defence was bandied around from one state department to another and in each case effective inclusion of the local authorities never materialised.
- 4.3 Although the civil defence authorities complained about apathy during the War it has been considerably worse since the War. A civil defence membership of 8 500 in Cape Town during the War is in sharp contrast to present day membership.
- 4.4 For almost thirty years after the War, disaster funds were allowed to proliferate without adequate control or co-ordination of such funds.
- 4.5 Fortunately the absence of clearly-defined statutory provisions empowering local authorities to establish civil defence organisations entitled to certain action; the absence of compensation and the recommendations of the Van Rooyen Commission led in part to the enactment of present day legislation.
- 4.6 It took South Africa a long time to develop a sophisticated civil defence service - fortunately civil defence action on a large scale was not previously required.

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3

DISASTER CLASSIFICATION, INCIDENTS AND PROBABILITY

CONTENTS

1. INTRODUCTION
2. CLASSIFICATION OF DISASTER-TYPES AND INCIDENTS
3. PROBABILITY OF DISASTERS
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1. INTRODUCTION

- 1.1 A comprehensive classification of the types of disaster that could occur is a pre-requisite for effective civil defence planning.
- 1.2 A classification of disaster-types enables one to distinguish between the various disasters to ensure effective planning. the classification "fire", for instance, is too broad. Combustible material in a chemical factory is entirely different from that in a veldfire, and would require a different action. A classification should convey the type of disaster as accurately as possible, thus facilitating the planning and action required in the event of a disaster.
- 1.3 The classification is not exclusive, and many of the categories may occur simultaneously - or the one as a result of another.
- 1.4 Various disaster incidents which have occurred outside and within the borders of South Africa have been arranged according to the classification. The former are cited first, followed by examples of South African disasters. Although only one example is cited for each category many examples exist. The incidents convey the enormous loss and damage suffered by certain categories of disasters. Compared to other countries South Africa has been very fortunate, so much so that suitable examples for certain categories could not be found.
- 1.5 As a result of the difficulty in easily assessing the damage to property caused by disasters the cost where applicable is given in terms of human lives lost.
- 1.6 The incidence of disasters within an area is an important gauge of the likelihood of a similar incident occurring again. Certain areas of the world have a high incidence of earthquakes, certain areas of Natal are regularly plagued by floods with the result that planning for this type of disaster would enjoy preferential treatment.

- 1.7 Many of the types of disasters would, peculiar to local conditions, be precluded from planning by civil defence organisations as would for instance be the case of "volcano" in Cape Town.
- 1.8 In addition to incidents other indicators such as the socio-political climate, the military situation, technological advances and statistics aid in determining the probability of various disasters occurring. This knowledge is of great importance in the planning of a service and adopting effective measures to deal with the various disaster types.

2. CLASSIFICATION OF DISASTER-TYPES AND INCIDENTS

2.1 BUILDING OR STRUCTURE

Any building or structure erected by man.

2.1.1 Explosion

As result of sudden development of internal energy and its resultant escape - accompanied by noise.

The explosion of a gas cylinder during the "Holiday on Ice" show held in Coliseum, Indianapolis on October 30, 1963 resulted in the death of 72 people and injury to 385.¹

On June 13, 1905 an explosion beneath the surface of Adderley Street, Cape Town caused the death of one person and injury to 16 others. Damage to property was extensive.

2.1.2 Failure

Collapse or break-down of the structure - failure to retain original form.

The collapse of steel barriers at the Ibrox Park Stadium, Glasgow during a football match on January 2, 1971 caused the death of 66 spectators and injured 100.³

2.1.3 Fire

Light and heat caused by combustion - the burning of the structure or its contents.

A fire which swept through the Coconut Grove Night Club in Boston on November 28, 1942 killed 492 people.⁴

One person died and several were injured when a block of flats caught fire in Cape Town on September 7, 1977.⁵

2.2 CIVIL UNREST

Absence of rest, peace and quiet - agitation of political or social nature - usually internal forces.

2.2.1 Riots

Large disturbance of peace accompanied by anger, hostility, aggression, destruction of property and/or life.

During the period August 11 - 14, 1965 rioting in Watts (USA) caused the death of 34 persons and injury to 1 032.⁶

During June - August 1976, 176 persons were killed and 1 439 injured as result of riots in Soweto which began on 16 June.⁷

2.2.2 Urban terrorism

Organised destruction of property and/or life by ruthless means - usually internal forces - usually restricted to high density urban areas - political or social motive.

A bomb blast caused by a political activist group on August 2, 1980 at the Bologna Central Station, Italy, killed 84 and injured 226 people.⁸

Two persons were killed in a shooting incident in Johannesburg on June 13, 1977 when urban terrorists attacked a warehouse.⁹

2.3 CLIMATIC CONDITIONS

Conditions related to the atmosphere - weather patterns/conditions.

2.3.1 Cyclone

Rotation of destructive winds around a centre of minimum barometric pressure - usually covers large area and accompanied by a violent storm.

The cyclone "Tracy" which passed through Darwin on December 25, 1974 caused the death of at least 50 people and left 25 000 homeless.¹⁰

2.3.2 Drought

Absence of rain over a long period resulting in shortage of water and famine.

Because of a severe drought during 1974 in the Sahel region, West Africa, 100 000 were estimated to have perished from starvation.¹¹

2.3.3 Hail

Supercooled droplets of water giving rise to the formation of particles of ice which descends during a hailstorm (injury usually indirect through broken glass, etc.)

During June 1969 hail caused damage estimated at USA \$15 000 in Amarillo.¹²

On November 17, 1949 a hailstorm injured 100 persons and caused damage estimated in excess of R2 000 000 in Pretoria.¹³

2.3.4 Hurricane

Very strong wind (in excess of 120 km per hour) accompanied by a violent storm (rain, wind, thunder).

On September 18, 1974 hurricane "Fifi" with winds of 140 km per hour cost Honduras the loss of at least 8 000 lives and left 400 000 homeless.¹⁴

A hurricane which swept through Natal on May 31, 1905 caused the death of at least 168 people, 3 000 stock and enormous damage to property.¹⁵

2.3.5 Rainstorm

Large volume of water released in short period of time - at times accompanied by strong winds, lightning, thunder - usually results in floods.

During the autumn of 1966 sections of Italy suffered severe floods caused by exceptionally high rainfall resulting in the death of 112 persons and damage estimated at USA \$1 090 million.¹⁶

Fifty people drowned in the floods which resulted after severe rainstorms in the Transvaal, Natal and Orange Free State during February 1976.¹⁷

2.3.6 Temperature Extremities

Prolonged exposure to extreme temperatures resulting in death or temporary disablement.

A searing heatwave settling over the mid-western and southern states of the USA during the summer of 1980 caused the death of well over 1 000 people.¹⁸

2.3.7 Tornado

Very strong winds in rotation (funnel-like) constantly changing direction and affecting a limited area.

The Gulf and mid-western states of the USA were struck by various tornadoes during April 1974 with the resultant loss of 308 lives.¹⁹

On November 26, 1948 a tornado struck Roodepoort with the resultant loss of 4 lives, 70 injured persons and damage estimated at R2 000 000.²⁰

2.3.8 Typhoon

Violent cyclones in the East Indies and China Seas.

On September 26, 27, 1959 a typhoon caused the death of 4 400 in Honshu.²¹

2.4 DISEASE

Impairment of health.

2.4.1 Epidemic

Contagious disease afflicting many people or communities or regions in a given period of time.

During the period 1917 - 1921, 2.5 - 3 million Russians died of a Typhus epidemic.²²

The influenza epidemic during 1918 caused the death of an estimated 140 000 people.²³

2.4.2 Pandemic

Disease afflicting nations or the world in a given period of time.

The world-wide Influenza pandemic caused the death of 20 - 30 million people during 1917 - 1919.²⁴

2.5 ECONOMIC/LABOUR DISRUPTION

The disruption of the economy and labour force - the inability of the economy to sustain economic activity - usually resulting in large scale economic and social disruption.

The Wall Street Disaster of October 29, 1929 caused the loss of millions of dollars and approximately 2 500 people committed suicide.²⁵

2.6 EMOTIONAL DISORDER

Irrational group behaviour because of mass hysteria, panic and fear.

On December 30, 1903, 200 people died as result of smoke inhalation and fire but a further 400 were crushed to death as result of the panic behaviour of the patrons of the Iroquois Theatre, Chicago.²⁶

2.7 INDUSTRIAL/MINING

Trade, manufacturing of products, excavation of minerals.

2.7.1 Explosion

(See 1.1.1) Usually more severe.

On October 14, 1913 an explosion in the Senghenydd Coal Mine killed 439 miners.²⁷

An explosion in the Coalbrook Mine on January 21, 1960 killed 400 miners.²⁸

2.7.2 Fire

(See 1.1.3) Usually more difficult to manage because highly inflammable material and toxicity.

A fire which gutted a factory at Fixborough on June 1, 1974 killed 29 and injured 100 people.²⁹

2.7.3 Pollution

Gross emissions of gases, smoke, dust into the elements, the use of which leads to poisoning.

On July 10, 1976 approximately 4¹/₂ lbs. of deadly dioxin was sprayed into the air from a factory in Seveso resulting in 700 residents abandoning their homes, therapeutic abortions, severe body burns and stock losses.³⁰

2.8 NUCLEAR RADIATION

Excess heat or damaging quantities of radiation released with resultant death, injury and damage to property.

2.8.1 Nuclear Accidents

Unplanned emission of heat and radiation.

An accident at Arco, Idaho caused the death of three persons on January 3, 1961.³¹

2.8.2 Thermonuclear War

The lethal employment of nuclear weapons during a state of war.

The atomic bomb dropped on Hiroshima on August 6, 1945 killed more than 80 000 people.³²

2.9 REFUGEES

An influx or exodus of large numbers of people seeking shelter from war, political unrest or other reason.

As result of a devastating drought in north-east Africa the population at refugee camps in Somalia had reached 270 000 by April 1975.³³

By August 23, 1975 more than 15 000 refugees had been assembled in South Africa and South West Africa after fleeing the civil war in Angola.³⁴

2.10 TOPOGRAPHICAL CHANGES

Temporary movement of or change to the earth surface as result of various stresses or fire.

2.10.1 Avalanche

Movement of large mass of snow/ice caused by stress.

On October 9, 1963 a huge avalanche displaced water from a dam to cause the death of 1 189 persons in Longarone.³⁵

2.10.2 Earthquake

Movement of the earth surface as result of contraction and adjustment of the earthcrust.

An earthquake which occurred in the Tangshan Area of China cost the lives of approximately 700 000 people on July 28, 1976.³⁶

An earthquake struck the Boland on September 29, 1969 with the loss of 9 lives and damage estimated at R19 000 000.³⁷

2.10.3 Landslide

Movement of any mass matter (soil, dumpings) as a result of stress.

On October 21, 1966, 147 people died when a flow slide (mine dumpings) engulfed part of Aberfan.³⁸

2.10.4 Tsunamis

Ocean wave caused by an earthquake resulting in flooding and damage to shipping and coastal areas (tidal wave).

A tsunami which struck East Pakistan on October 10, 1960 caused the death of 10 000 people.³⁹

2.10.5 Veldfire

The burning of large areas of veld/bush, livestock.

During August - September 1967 millions of acres were destroyed by fire in the US northwest and British Columbia.⁴⁰

Eight people are known to have died and considerable damage was caused when a veldfire destroyed a vast area in Natal during August 1977.⁴¹

2.10.6 Volcano

Ejection of heated matter, ash and gasses from an opening in the earthcrust.

Monte Pelée erupted on May 8, 1902 and destroyed the village of St. Pierre killing approximately 30 000 people.⁴²

2.11 TRANSPORT

The use of carriers for the conveyance of people, livestock and goods.

2.11.1 Air

All modes of air transport and any effect caused on land.

Two Boeing 747 aircraft collided at Tenerife on March 27, 1977 killing 576 people.⁴³

South African Airways' worst accident occurred on April 20, 1968 when a Boeing 707 crashed near Windhoek killing 123 people.⁴⁴

2.11.2 Marine

All vessels used on inland rivers/lakes or the sea.

The death-toll as result of the sinking of the "Titanic" on April 15, 1912 was approximately 1 500.⁴⁵

On August 21, 1972 the collision between the "Oswego Guardian" and "Texanita" off the Cape coast cost the lives of 32 persons.⁴⁶

2.11.3 Motor

All forms of motor transport and its effects.

As result of a bus accident on May 15, 1972 near Minia 50 people died.⁴⁷

Within days of each other two separate accidents involving buses cost the lives of 34 people on October 9, 1979 near Tzaneen and 28 people on October 25, 1975 near Riviersonderend.⁴⁸

2.11.4 Rail

The use of rail transport and its effects.

A commuter train which was struck by an express train near Buenos Aires on February 4, 1970 caused the death of 236 people.⁴⁹

On November 15, 1949, 63 people died and 116 were seriously injured in a rail accident near Waterval Boven.⁵⁰

2.12 WAR

State of armed conflict/aggression between parties/nations resulting in death and destruction with the use of conventional weapons.

The civilian death toll during war has increased with every major war as follows:⁵¹

	<u>Civilian losses</u>	<u>Military losses</u>
World War I	5%	95%
World War II	48%	52%
Korean War	84%	16%

It should be noted that these figures merely represent an average. During World War II, for example, the civilian death toll was much higher in Europe than in the United States and the United Kingdom.

3. PROBABILITY OF DISASTERS

3.1 BUILDING OR STRUCTURE

3.1.1 Fire is more commonly found in relation to this category than are an explosion or structural failure. The latter two types do not present as a serious probability because of the stringent local building regulations, modern building techniques and the very limited domestic use of explosive materials.

3.1.2 Although the Cape Peninsula has not suffered seriously in terms of fire, the threat of mass casualties in high-rise buildings (B.P. Centre tallest - 128,77 m) with their huge daily populations remains serious because of the limits that such buildings place on the capability of a fire brigade.

3.1.3 During 1978 the Cape Town Fire Brigade attended to 463 fire-calls related to this category.⁵²

3.2 CIVIL UNREST

3.2.1 Although Cape Town experienced riots during August 1907⁵³ the riots during August - September 1976 were much more severe with many lives lost and damage estimated at R7,3 million.⁵⁴

3.2.2 Various economic, social and political grievances resulting in the main from the country's political structure have given rise to sporadic unrest over the past few years and is expected to continue in the absence of a satisfactory political solution.

3.2.3 With the exception of a few minor bombing incidents Cape Town has not experienced serious incidents of urban terrorism as has been the case in Pretoria and Johannesburg.

3.2.4 According to Time⁵⁵ the victims of urban terrorism are not soldiers but civilians and threat of terrorism is on the

increase. Further, the Minister of Defence stated that ". . . it would appear that Southern Africa is a major focal point for internationally sponsored revolution."⁵⁶ South Africa's political and armed forces' leaders have repeatedly stated that an increase in urban terrorism is to be expected.

3.3 CLIMATIC CONDITIONS

3.3.1 Of the disaster types identified under this category a rainstorm is probably the most serious threat to the Cape Peninsula. In spite of the tornado which struck Hanover (approximately 1 200 km from Cape Town) during 1976,⁵⁷ such a disaster in addition to a cyclone, drought, hail and temperature extremities are not common to the Cape Peninsula. Although hurricanes are also uncommon severe rainstorms, often mistaken to be hurricanes because of the severity, cause considerable damage and hardship in the Cape Peninsula annually.

3.3.2 Profuse rains in July 1822 caused so much damage to the Western Cape that the British government made the sum of £100 000 at 5% available to the Colony, as well as £25 000 for repairs to churches and public buildings. The rain, driven by a strong north-westerly wind, destroyed a number of houses . . . Abnormal rains in June 1901 and June 1904 caused havoc at Cape Town. . . . Floods also took place on 20 June 1905 at Simonstown and elsewhere in the Cape Peninsula . . . 6.72 inches (168 mm) of rain fell within 24 hours in Cape Town on 9 August 1948, submerging parts of the Cape Flats.⁵⁸

Furthermore, in 1946 it was stated that

Winter after winter engineers and other experts have been drawing attention to the problem of the Cape Flats flooding and although many suggestions have been made, and elaborate schemes formulated, no really large-scale plan has yet been put into effect.⁵⁹

On July 7, 1975

Hundreds of houses were flooded, sections of roads were washed away, railway lines threatened and electricity and telephone services disrupted as heavy rains and wind gusting to gale force lashed the Cape Peninsula . . .⁶⁰

Similar conditions prevailed on November 23, 1976 when

Torrential rains and winds of up to 127 km/h ... lashed the Western Cape, flooding houses and sportsfields, disrupting traffic and blowing tiles from roofs. [The storm] ... caused one death and thousands of rands damage ...⁶¹

During August 1977, a 100 km/h gale lashed the city causing thousands of rands damage.⁶²

3.3.3 The Cape Flats forms a major part of the Cape Peninsula and as its name implies the area is flat, low-lying and easily water-logged and flooded. The average annual rainfall for the area, measured at Rondevlei from 1952 to 1974 was 637 mm, with higher than average rainfalls recorded during 1952 - 1957, 1959, 1962 and 1974.⁶³

3.3.4 Although short-range forecasting of climatic change is more accurate than it has ever been before "... the discipline of climatology - the study of long-range trends in weather - is still an inexact science ..."⁶⁴ However, from the frequency of rainstorms in the Cape Peninsula and the infrequent occurrence of other types of climatic conditions it must be concluded that rainstorms and flooding remain the biggest threat in this category.

3.4 DISEASE

3.4.1 Advances in medicine, communication and the establishment of organisations such as the United Nations World Health Organisation have greatly reduced the rush of epidemics.

3.4.2 Whilst the Cape Peninsula's health standards are high and the possibility of an epidemic occurring in the area is remote, the conditions under which many squatters live could be considered to be hazardous to health.

3.5 ECONOMIC/LABOUR DISRUPTION

The probability of economic disruption on a scale similar to that of the Wall Street Crash in 1929 occurring in the Peninsula is

remote. Labour unrest, in the form of strikes and boycotts, is a probability and could result in social and economic disruption. Any major disruption in the delivery of services provided for instance by the City Council of Cape Town (annual 842 000 m³ garbage processing, daily 362 megalitres water supply, annual kWh electricity supply, et. al. - see 8.3) could give rise to a disaster. Similarly strikes by various other essential services staff would have the same result.

3.6 EMOTIONAL DISORDER

3.6.1 Whilst this category of disaster has claimed very few casualties in the area concerned mass fear prompted by rumours immobilized a large portion of the population during the height of the 1976 riots.

3.6.2 During or pending any state of disaster rumour, which is inevitable particularly in the absence of unrestricted access to the truth, censorship has the potential to cause death and damage through panic, hysteria and irrational behaviour.

3.6.3 This category is a serious threat in the event of another disaster type where people, not trained and prepared to handle such situations, resort to panic and mass hysteria.

3.7 INDUSTRIAL/MINING

3.7.1 Whilst no mining is conducted in the area the threat of an industrial explosion and fire, and to a much lesser extent pollution remain a threat.

3.7.2 Although the industrial area of the Cape Peninsula is not as large as that of other major cities the petroleum refinery with its huge storage facilities and the chemical and explosive industry increase the probability of a disaster by the nature of its industry.

3.7.3 During 1978 the Cape Town Fire Brigade attended to 54 fire calls in this category.⁶⁵

3.8 NUCLEAR RADIATION

- 3.8.1 Massive radiation in the Cape Peninsula can be caused by nuclear-fuelled satellites, the nuclear power plant and its fuels, and thermonuclear war.
- 3.8.2 During February 1978 the Russian satellite cosmos 954 containing 45 kg of enriched uranium orbited over Southern Africa before crashing in Canada.⁶⁶ The possibility of such a disaster is however remote.
- 3.8.3 The Koeberg nuclear power station is situated approximately 30 km from Cape Town at Duynfonteyn. The power station cannot explode like an atom bomb and the "worst" accident that can happen would be the melting of the nuclear fuel and the resultant escape of radio-active material into the atmosphere. This would result in a maximum of 6 000 deaths over a period of 30 years and the monitoring of milk produced up to 200 km from the plant for up to 4 weeks because of Iodine-131 (short-period of radio-activity); and contaminated land up to 15 km from the plant being ploughed under, removed or evacuated for a couple of decades because of Cesium-137 (long-period of radio-activity).⁶⁷
- 3.8.4 ESCOM claims that the chance of such a disaster occurring is about one in a hundred million.⁶⁸ Hoyle and Hoyle⁶⁹ are of the opinion that because of the difficulty in assigning a probability to a disaster-type that has never caused a death or injury (commercial nuclear stations) the best estimate for the number of injuries and fatalities in the future is zero. However, Robb is emphatic that the dangers are being minimized and states that "There are considerable risks to human health - and to life itself."⁷⁰
- 3.8.5 According to the Stockholm International Peace Research Institute in 1977 "The combined explosive capability of US and Soviet tactical nuclear weapons is roughly equivalent to 700 million tons of TNT or 50 000 Hiroshimas".⁷¹ However,

according to studies undertaken by the National Academy of Sciences and the Arms Control and Disarmament Agency of the United States South Africa would survive an East-West global nuclear war better than most countries.⁷²

3.8.6 Since Cape Town is of strategic importance (harbour facilities, large petroleum reserves and nuclear power plant among other) the possibility of a tactical nuclear attack cannot be ignored.

3.9 REFUGEES

During 1961 the Cape Peninsula served as an entry point for and accommodated a number of people who fled from the volcanic eruption on the island of Tristan da Cunha. It is however unlikely that the area would have to cope with a large scale influx of refugees.

3.10 TOPOGRAPHICAL CHANGES

3.10.1 Of all the types listed under this category the only types which could pose as a threat to the Cape Peninsula, albeit it a limited threat, are earthquake and veld fire.

3.10.2 In spite of the recorded seismic activity in South Africa (see 10.2.2.3 and 10.2.2.4) and the existence of two minor faults, the Groenhof and Worcester faults, the threat of a devastating earthquake is very minimal. The area in question is not located on or near a seismological fault.

3.10.3 The greater portion of the Cape Peninsula is comprised of mountains, forest and veld. In spite of the stringent measures to prevent veld fires contained in the Forest Act, 1968 (Act 72 of 1968) "... about 300 fires a year destroy 34 000 ha of the Western Cape's mountains and forests every year."⁷³

3.10.4 During 1978 the Cape Town Fire Brigade dealt with 1 642 fire calls (the highest in the country) for rubbish, grass and bush.⁷⁴

3.11 TRANSPORT

3.11.1 With the exception of the rail accidents during 1926 and 1957 and a few shipping accidents off the peninsula coast major disasters of this category are not very common to the area. However, every year greater use is being made of public transport.

3.11.2 During 1978/79 1 208 300 passengers (excluding transit) were handled at D.F. Malan airport which represents an increase of 19,5 per cent on the figures for 1977/78.⁷⁵

3.11.3 The area adjacent to the airport is becoming increasingly populated which could lead to a casualty figure far in excess of the number of passengers on board an aircraft were it to crash during the critical periods of take-off and landing. The total aircraft movements for 1978/79 at the airport numbered 54 761.⁷⁶

3.11.4 On week days approximately 110 000 people commute to Cape Town by train between 06h00 and 08h30, and in so doing increase the probability of a rail accident.⁷⁷

3.12 WAR

In spite of South Africa having been engaged in two world wars the Cape Peninsula was never subjected to the ravages and destruction of warfare nor is it very likely that the area will be invaded in terms of conventional warfare.

4. COMMENTS

4.1 Although various classifications of disasters exist which vary in format and content, most contain the disasters listed in this classification. Garb and Eng,⁷⁸ for instance, list 24 types similar to this listing but without grouping these into categories.

4.2 Whilst the probability of a nuclear accident occurring at the

Koeberg plant is remote the threat of such a disaster or a "false alarm" may result in a disaster of another category, namely emotional disorder as was the case in Three Mile Island where no physical injury was suffered but many suffered from feelings of gloom and hysteria.⁷⁹ Atlantis, which is adjacent to the plant, is a rapidly developing Coloured township which will ultimately become a city. This community, because of its proximity, faces a real threat of emotional disorder in the event of a threatened or partial failure of the plant or rumours of an impending "melt-down". It is questionable whether members of the community will return once evacuated from Atlantis.

- 4.3 The probability of one type of disaster occurring can not be viewed in isolation as one type may occur simultaneously or may give rise to another. In the case of civil unrest many other disasters may occur. It has already been mentioned that the civil unrest in the Cape Peninsula caused considerable panic and hysteria. Whilst arson accounted for 7,6 per cent of all reported fires excluding grass, bush and rubbish during 1978 it accounted for 70,1 per cent of fires in educational establishments, the target of rioters.⁸⁰ During June 1980 civil unrest was responsible for a drop in immunisation against various diseases, which if continued unabated could ultimately lead to an epidemic.⁸¹
- 4.4 The probability of an industrial fire or explosion or a transport disaster is considerably increased if the threat of urban terrorism increases. With the availability of hand operated missile launchers such as the SAM-7 a repeat of the Air Rhodesia Viscount Disaster during February 1979 adds to the probability of an air disaster.⁸² Similarly the fuel storage depot at Milnerton becomes an increased risk when viewed in terms of urban terrorism. Such a disaster occurred on December 11, 1978 in Salisbury.⁸³
- 4.5 Other disasters which would not clearly be identified in terms of only one category also exist. A good example would be the electrical failure in New York on July 13, 1977 which resulted in 2,5 million people being trapped in trains, subways, and lifts; communication breakdowns; and large-scale looting and arson which led to 2 500 arrests.⁸⁴

- 4.6 Whilst it is impossible to predict disasters it would appear that, on evidence certain categories of disasters carry a greater probability than others.

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LEGISLATION

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1. INTRODUCTION

- 1.1 The establishment of a civil defence organisation, its structure, function, powers and various other provisions are chiefly as result of various legislative provisions.

Whilst many statutory or other provisions may prevail during a disaster and the resultant action taken in terms of civil defence, only the salient provisions of the more pertinent legislation is dealt with in an endeavour to create an understanding of the legal framework pertaining to civil defence.

- 1.2 The legislation presented in this section was introduced within the last three years. It is very much more definitive and comprehensive than the legislation which preceded it in early 1977. In spite of the fact that the current legislation initially purported to meet all the needs; that certain anomalies and shortcomings exist; it is the best that South Africa has ever had and has greatly enhanced the standing of civil defence in the country.

- 1.3 The Civil Defence Act, 1977 (Act 67 of 1977) was promulgated on May 26, 1977; the regulations in terms of section 8 on March 31, 1978 as amended on March 2, 1979; and in terms of section 9 on December 15, 1978.

- 1.4 In terms of section 3(1) of the Act the Provincial Administration (for the purposes of this study the Provincial Council of the Province of the Cape of Good Hope) is empowered to make ordinances in furtherance of the provisions contemplated in the said section. The Civil Defence Ordinance, 1977 (Ordinance No. 8 of 1977) was promulgated on July 22, 1977 and amended by the Civil Defence Amendment Ordinance, 1978 (Ordinance No. 15 of 1978) on September 1, 1978.

- 1.5 The legislation mentioned in 4.1.3 and 4.1.4 makes provision for the establishment of civil defence organisations, compensation and confers certain powers.

- 1.6 The Fund-raising Act, 1978 (Act 107 of 1978) which provides for the control of fund-raising and the establishment of various relief

funds and the regulations pertaining thereto were promulgated on September 1, 1979. The Act was amended by the Fund-raising Amendment Act, 1980 (Act 41 of 1980) on May 9, 1980 (deemed operative from September 1, 1979).

2. CIVIL DEFENCE ACT, 1977 (ACT 67 OF 1977)

2.1 The following definitions are contained in section 1 of the Act:

2.1.1 The "Administrator" is the administrator of a province and the "Minister" is the Minister of Defence.¹

2.1.2 A "disaster"

... includes any act of God (sic), the influx of refugees into the Republic, or any consequences arising out of terrorism as defined in the Terrorism Act, 1967 (Act No. 83 of 1967).²

In terms of section 2 of the Terrorism Act, 1967 "terrorism" includes training, inciting, instigating, conspiring, aiding, advising or encouraging any act endangering the maintenance of law and order. Furthermore, it includes the possession of explosives, fire-arms and ammunition to commit such an act.³ Promoting disturbance; the crippling of industry; social and economic change by force or violence; endangering the safety of any person; encouraging feelings of hostility between races; endangering or obstructing essential services; communications and transport; are inter alia, also contained in the term "terrorism".⁴

2.1.3 A "state of disaster" is defined as follows:

If at any time in the opinion of the Minister it appears that any disaster is of such a nature and extent that extraordinary measures are necessary to assist and protect the Republic and its inhabitants, or that circumstances are likely to arise that such measures will be necessary, he may in such manner as he deems fit declare that from a specified date a state of disaster exists within an area defined by him.⁵

2.1.4 A "state of emergency" is defined as

the state which exists during -

- (a) a state of emergency referred to in section 2 of the Public Safety Act, 1953 (Act No. 3 of 1953); or
- (b) "time of war" as defined in section 1(1) of the Defence Act, 1957 (Act No. 44 of 1957).⁶

In terms of section 2 of the Public Safety Act, 1953 (Act 3 of 1953) the Governor-General⁷ may declare a state of emergency if in his opinion the safety of the public, or the maintenance of public order is seriously threatened; circumstances in the Union⁷ or in an area which seriously threatens public safety or the maintenance of public order; and the ordinary law of the country is inadequate to ensure public safety or to maintain public order.⁸

In terms of section 1(1) of the Defence Act, 1957 (Act 44 of 1957) "time of war" is defined as "... any time during which an actual state of war exists or may in the opinion of the State President be anticipated."⁹

2.2 In terms of section 2 the Minister is empowered to declare that a state of disaster exists by means of a notice in the Government Gazette or as soon after such a declaration, if made in any other manner, is made.

A further provision in terms of section 2(3) empowers the Administrator to take any steps empowered to take in terms of the Ordinance should he be of the opinion that a threat of a state of disaster exists or that such a state may be declared on condition that he consults with the Minister before such action or as soon thereafter. His intention must be conveyed in a notice in the Official Gazette within four days of such action.

2.3 In terms of section 3 a provincial council may subject to certain provisions

... make ordinances in connection with any matter, other than a matter which requires or entails armed action or the

prevention or the combating of crime, relating to civil defence, including -

- (a) the protection of persons and property, and the rendering of assistance to persons, in the province with a view to or in connection with a state of emergency or disaster; and
- (b) the combating of civil disruption in the province in a state of emergency or disaster.¹⁰

The regulations made under the Public Safety Act, 1953 and the Defence Act, 1957 shall prevail in the event of a conflict between the regulations and the Ordinance.¹¹

No ordinance as referred to may be introduced in the Provincial Council except after consultation with the Minister and no regulation made in terms of the ordinance may be promulgated save with the approval of the Minister.¹²

- 2.4 Section 4 makes provision for the payment of compensation for movable or immovable property used in the purpose of achieving the objects of the ordinance.
- 2.5 The power or duty conferred upon any person or authority in terms of the ordinance may be taken over by the Minister and such power or duty can be conferred upon any person or authority as deemed necessary by the Minister.¹³
- 2.6 In terms of section 6 the Minister may direct any member of the South African Defence Force to render such assistance as determined by him and to perform functions in terms of the ordinance. The Minister, is empowered to evaluate the Republic's preparedness relating to civil defence and to inform and advise the Administrator. The Minister may with the collaboration of the Administrator activate civil defence in a province and co-ordinate all such activities (see 4.4).
- 2.7 The State President may make regulations in terms of section 8 preventing certain categories of persons from performing duties in terms of the Ordinance (see 4.3.1).

2.8 Section 9 empowers the State President to make regulations for the payment of moneys appropriated by Parliament to compensate any person or dependants in the event of death, injury or disablement in the course of performing duties in terms of the Act or the Ordinance. The requirements to which the said regulations must conform are stipulated. Furthermore, this section indemnifies the State or any local authority for liability for death or injury where provision for such death or injury is made in the regulations (see 4.3.2).

3. REGULATIONS AS AMENDED UNDER THE CIVIL DEFENCE ACT, 1977 (ACT 67 OF 1977)

3.1 Regulations as amended in terms of section 8 of the Act.¹⁴

3.1.1 In terms of regulation 2 the members of the South African Police and its Reserves; the South African Railway Police; the South African Defence Force, its Reserves and auxiliary service(s); and persons employed in the Department of National Security, the Department of Defence as civilians, the Prison Service and in the production of armaments may not perform any function in terms of section 3 of the Act (see 4.4).

3.1.2 In terms of regulation 2, employees of local authorities are excluded from the above-mentioned provisions (see 4.3.1.1).

3.2 Regulations in terms of section 9 of the Act.¹⁵

3.2.1 In terms of regulation 1 the following formulae for the payment of compensation are defined as:¹⁶

formula I	means	$A \times B \times C,$
formula II	means	$A \times C \times D,$
formula III	means	$A \times C \times E,$ and
formula IV	means	$\frac{F \times G}{H}$ where

A - represents the income of the member on the date of the event. Should A exceed R6 000 per

annum it shall be deemed to be R5 600 per annum;

- B - represents the percentage at which the member's disability has been determined;
- C - represents 0,75;
- D - represents 0,40;
- E - represents 0,20;
- F - represents the amount of R4 080;
- G - represents the percentage of the member's disability; and
- H - represents 0,30

Payment in terms of formula III may not exceed compensation calculated in terms of formula I.

The word "member" is defined as a person who in terms of the Ordinance has bound himself to civil defence training and service.¹⁷

3.2.2 Compensation is payable to members involved in an event (death or injury whilst performing duty in terms of the Act or Ordinance); dependents of deceased members; reasonable costs in terms of medical and psychological examinations and medical treatment; travel and subsistence allowances; and an allowance not exceeding R250 for funeral costs of a deceased member.¹⁸

3.2.3 The amount of compensation payable is determined in terms of regulation 4. The main provisions are:

1. formula I - a member suffering from a temporary disability, calculated on a pro rata basis; a member who suffers from a permanent disability determined at more than 30 per cent;
2. formula II - the widower or widow of a deceased member;
3. formula III - every child of a deceased member; and

4. formula IV - a member suffering from a permanent disability of 30 per cent or less shall be paid a gratuity in terms of this formula.

3.2.4 Furthermore, the regulations provide for the percentage of disability determination; the payment of compensation in the form of pensions; the cessation date of pensions; the medical treatment of members; and the establishment of an appeal board and the right of appeal.¹⁹

4. CIVIL DEFENCE ORDINANCE, 1977 (ORDINANCE No. 8 OF 1977) AS AMENDED BY THE CIVIL DEFENCE AMENDMENT ORDINANCE, 1978 (ORDINANCE No. 15 OF 1978)

4.1 In terms of section 1(ii) a "disaster" is defined as "... a disaster which is not a state of emergency or a state of disaster and which, in the opinion of the Administrator or of the local authority concerned, is a disaster as defined in section 1 of the Act."

4.2 In terms of section 2(1)

a local authority shall take such steps as the Administrator may, either generally or specially, direct in regard to -

- (a) fire-fighting;
- (b) traffic control;
- (c) rescue and evacuation work;
- (d) shelter against air-raids and radio-active fall-out;
- (e) co-ordinated planning for the medical treatment and care of injured and sick persons;
- (f) the provisions of emergency housing, food and clothing;
- (g) the continuation of public health services;
- (h) the maintenance of essential services and the protection of essential industries, trades, places and areas;
- (i) transport, communications and warnings;
- (j) the continuation of existing local administration; and
- (k) any other matter which the Administrator may, by notice in the Provincial Gazette, determine.

In giving effect to action contemplated in section 2(1), a local authority may direct any person to furnish information with regard

to human or other resources at his disposal; and the Administrator may direct trade, industry or any service to take such steps as may be required, or authorise the local authority to make such a directive.²⁰

- 4.3 In the event of a state of emergency, or a state of disaster or a disaster the Administrator may make resources under his control available to the local authority and require or authorise the local authority to require the owner or supervisor of any resource required to surrender same or in such a person's absence to use or take such a resource.²¹ Section 2(6) provides for compensation by the Administrator in such cases.
- 4.4 In terms of section 8 a local authority may request the owner or supervisor of any resource required as in 4.4.2 to voluntarily make available such land, building or resource as may be required and any person trained for civil defence service to render such service in the event of a disaster occurring within the jurisdiction of the local authority. In such cases the local authority is responsible for compensation.
- 4.5 The Administrator may in terms of section 3(1) and 4(1) appoint staff and committees as he may deem expedient.
- 4.6 Section 3(2) requires the local authorities to appoint a Chief of Civil Defence upon whom any or all powers may be delegated.
- 4.7 Sections 5 to 7 make provision for training institutions; voluntary training and service; and outlines the duties of employees of persons in training or rendering service.
- 4.8. In terms of section 9 one local authority may render assistance to another in terms of manpower, material, provisions, equipment and finance.
- 4.9 Any person functioning in terms of the Ordinance may enter or break into any premises or damage, destroy or remove any property if there are grounds for the preservation of life; the prevention of injury; the removal of injured persons or animals; the protection of property; or in combating a disaster.²²

4.10 Section 12 makes provision for indemnity against loss or damage for certain persons acting in terms of the Ordinance.

4.11 In terms of section 13 the Administrator may render financial assistance for carrying out provisions of the Ordinance.

5. REGULATIONS UNDER THE CIVIL DEFENCE ORDINANCE, 1977
(ORDINANCE No. 8 OF 1977)

5.1 In terms of regulation 2 a local authority is directed to institute a "Civil Defence Corps", the members of which are to be appointed by the Chief of Civil Defence (local authority) to render service.

Such persons shall be appointed on condition that he applies therefor; is competent in terms of the Act; resides within the area; is mentally and physically capable; above 14 years of age; has bound himself to undergo training and render service; and has submitted a medical report.²³

Regulation 2(3) makes provision for an employee of a local authority who in the normal course of his duties performs any work in terms of section 2(1) of the Ordinance (see 4.3.1.2 and 4.4.1) to be deemed appointed as a member.

5.2 Records of members must be kept and on appointment a member must receive an identity card (prescribed in Schedule D) and a civil defence armband (prescribed in Schedule D).²⁴ Regulation 5 makes provision for the termination of appointment of a member.

5.3 Regulation 6 makes provision for the requirements with regard to the training of members.

5.4 When a member is called up to render service he is subject to the authority of the Chief and must render such service that may be required of him and without remuneration.²⁵

5.5 Regulation 11 empowers the Administrator, the Chief or any member to direct any person to evacuate any premises if he

believes that such action will save life, prevent injury and combat the disaster circumstances.

5.6 Contravention of any provision of the regulations may result in a fine of not exceeding R100 or a period not exceeding one month of imprisonment.²⁶

5.7 Schedules contained in the regulations lay down the requirements with regards to various forms and civil defence emblems.

6. FUND-RAISING ACT, 1978 (ACT 107 OF 1978)

6.1 No person may collect contributions of any kind unless authorised to do so in terms of the Act.²⁷ Section 33 contains certain exclusions from the above ruling.

6.2 In terms of sections 4 and 5 authority may be granted to organisations and their branches to collect contributions.

6.3 Temporary authority to collect contributions may be granted in terms of section 6 to "... any organisation or person intending to collect contributions in urgent or temporary circumstances ... " for a period not exceeding ninety days. This period may be extended for a maximum of ninety days.

6.4 Any person collecting contributions must be in possession of a writing granting him the authority to collect.²⁸ In terms of section 11 no contributions collected may, save with permission, be used for any object other than that for which it was collected.

6.5 Any person or organisation authorised to collect must in terms of section 12 keep prescribed records. Section 13 empowers the Minister of Social Welfare and Pensions to dispose of (the object of the contributions shall be considered) remaining contributions should temporary authority lapse or be withdrawn or when the objective has been met.

6.6 In terms of section 16 the Disaster Relief Fund, the South African Defence Force Fund and the Refugee Relief Fund are established

and in terms of section 17 they are to be managed by boards appointed by the Minister. The first Fund supercedes and receives the remaining assets of the following: National Relief Fund, Fund for External Relief, National Mine Disaster Fund and the Central Flood Disaster Fund; in the case of the second Fund, the former South African Defence Force Fund; and in the case of the third Fund, the Central Fund for Relief to Refugees.²⁹

6.7 The objects of the funds are, in the case of the Disaster Relief Fund,

... to render to persons, organisations and bodies who or which suffer damage or loss caused by a disaster, such assistance as the board may deem fair and reasonable ...;

in the case of the South African Defence Force Fund,

... to render such aid ... to members ... and their dependents who suffer financial hardship or financial distress arising, directly or indirectly, out of any service or duties contemplated in section 3(2) of the Defence Act, 1957 ...;

and in the case of the Refugee Relief Fund "... to render such assistance to refugees as the board may deem fair and reasonable."³⁰

6.8 Boards may, appoint committees to further its objectives; collect contributions for the achievement of its objects; authorise any person or organisation in writing to collect on its behalf; and Parliament may appropriate funds for the purposes of the boards.³¹

6.9 The State President is empowered in terms of section 26(1) to declare certain events to be disasters if

... it appears that serious material damage or loss or distress has occurred or is likely to occur as a result of a sudden or disastrous event in a particular area, whether in the Republic or elsewhere; and that relief of the distress of the persons who are or will be affected thereby is likely to be supported by the public generally or by any particular section of the public.

6.10 If the Minister deems it in the public interest he may prohibit the collection of contributions.³²

7. REGULATIONS UNDER THE FUND-RAISING ACT, 1978 (ACT 107 OF 1978).

7.1 Application for the authority to collect contributions must be made on the prescribed form to the Director of fund-raising, Pretoria or

any such application for a temporary authority to collect contributions in the area or any part of the area of one region only may be made to the chief welfare officer of the region concerned.³³

7.2 Authority is not transferable and funds may only be collected for the purpose, in the area and under the name of the person or body as specified in such an authority.³⁴

8. COMMENTS

8.1 At present a distinction is made between a "state of emergency" and a "state of disaster" declared by the State President; a "state of disaster" declared by the Minister of Defence or the Administrator; and a "disaster" defined by the Administrator or a local authority. Unless granted further powers by the Administrator, a local authority's powers during a disaster are governed by the definition of a disaster contained in the Ordinance which specifically excludes a "state of emergency" (4.4.1 and 4.4.4). Should the Minister or the Administrator declare a state of disaster the provisions contained in the Fund-raising Act 1978 would not apply as a declaration of a state of disaster by the State President is required for that purpose.

The legislation should contain the same all-embracing definition of a "state of disaster" and the Minister, in the case of a national disaster; the Administrator in the case of a regional disaster; and

the local authority in the case of a local disaster should be empowered to declare such a state and in so doing bring into effect any provisions relating to disasters as may be required. During a disaster the relevant authority should be empowered to take far-reaching action without administrative hinderance. Although the legislation empowers the Administrator such authority the local authorities are by and large dependent on the Administrator's authority to take certain action.

- 8.2 Most of the authority conferred by the legislation is in favour of the State. The Minister has complete authority over the actions of the lower eschelons of government in spite of the accepted principle that civil defence is primarily the responsibility of the local authority (see 4.2.1.4, 4.2.2, 4.2.3, 4.2.5 and 4.2.7). The centralization of authority does however enhance co-ordination on a national level (see 2.6).
- 8.3 An important provision in the Act (see 4.2.3) precludes the Ordinance from making provision for armed action and the combating of crime thus effectively removing the "vigilante character" so often associated with civil defence. It also places the responsibility for the maintenance of law and order with the established law-enforcement bodies.
- 8.4 The provisions enabling local authorities to assist each other (see 4.4.8) will hopefully lead to greater co-ordination, standardization of services and possible amalgamation. The provision of standardized emblems and forms (see 4.5.7 and Appendix 1) are a welcome move in this direction.
- 8.5 The Ordinance should have stipulated that the Chief should be the town clerk thus preventing a situation where a lesser official lacks expertise and authority to command forces effectively (see 4.5.1).
- 8.6 Requiring members of the public to undergo medical examinations and to bind themselves legally in a "military" style corps mitigates against voluntary service. Most persons are always willing to help but reluctant to commit themselves legally and in so doing stand a chance of being prosecuted (see 4.5.1 and 4.5.6).

8.7 Compensation is payable only to members, thus excluding all other voluntary assistance. It is questionable whether members alone are capable of "managing" in the event of a disaster. It follows that the local authority must discourage or disallow non-members from rendering service during a disaster as they are not covered. This anomaly in the legislation has led the Divisional Council of the Cape to insure so-called non-members, persons who are trained and prepared to help but not prepared to be legally bound. This further insurance has limits and does not solve the problem. Fire brigades faced with the same need of volunteers are not faced with the same dilemma because

... the chief fire officer may, in the event of a fire, employ casual assistants and avail himself of the assistance of persons who may place their services at his disposal and such assistants and persons shall, ... be deemed to be members of such a service.³⁵

A similar provision for civil defence service would enable the chief to avail himself of any service in situ on an ad-hoc basis.

8.8 The maximum amount payable in terms of the formulae amount to:

R4 200 p.a. in the case of formula I;

R1 680 p.a. in the case of formula II;

R840 p.a. in the case of formula III; and

R4 080 gratuity in the case of formula IV (see 4.3.2.1)

Although the amounts indicated are not compatible with the annual income of most members (average declared household income for whites in 1975 was R7 404, for Coloureds R2 544, for Indians R3 852 and for Blacks R876)³⁶ it compares favourably with R1 164 p.a. in the case of a Disability Pension and R1 284 p.a. in the case of a War Veteran's Pension (for Whites).³⁷ As insurance companies are not obliged to pay death and disability benefits in certain cases the compensation serves a good purpose.

The R250 allowed for funeral costs is a paltry sum and although provision is made for costs of medical and psychological examinations provision is only made for medical treatment. During

and after a disaster psychological treatment is of utmost importance (see 4.3.2.2).

- 8.9 The legislation does not provide for the right of appeal against compensation paid for movable and immovable property (see 4.4.3 and 4.4.4).
- 8.10 The provisions with regard to refugees is confusing. Only the influx of refugees is considered a disaster (see 4.2.1.2) and the term "refugee" is not defined in the Fund-raising Act, 1978. A mass exodus of refugees can be a major disaster. It is not clear whether a political refugee fleeing South Africa will receive the same benefit from the Fund (see 4.6.6 and 4.6.7) as would be the case with a foreign refugee entering the country.
- 8.11 An important omission in the legislation is the clarification of the circumstances under which benefits will be paid (see 4.6.6) and gives rise to the boards exercising their own discretion.
- 8.12 To maximise contributions for a disaster fund the collection must commence as soon after the disaster as possible. An application for temporary authority in the case of more than one region must however be made to Pretoria, inevitably leading to a delay (see 4.7.1). Further, it is not clear from the legislation when persons could apply for temporary authority to collect for a disaster and when the fund established would contribute.
- 8.13 The Van Rooyen Commission recommendation that a single bank account be established wherein contributions could be paid anywhere in the country, thus maximising appeal immediately after a disaster, is not included in the legislation and is a serious omission.
- 8.14 The power granted to the Minister to prohibit the collection of funds (see 4.6.10) is extraordinary and may lead to political abuse in the case of political refugees for instance.
- 8.15 Although the afore-mentioned comments are essentially negative it does not imply that the legislation is without merit. On the

contrary, it is well researched and drafted and contains many of the provisions required to establish an effective civil defence service. It is a considerable improvement on the previous legislation.

9. NOTES

1. Civil Defence Act, 1977 (Act 67 of 1977), section 1(i) and (iii)
2. Ibid., section 1(ii)
3. Terrorism Act, 1967 (Act 83 of 1967), section 2(1) (a), (b) and (c)
4. Ibid., section 2(2)
5. Civil Defence Act, 1977, section 2(1)
6. Ibid., section 1(v)
7. In terms of section 3 of the Republic of South Africa Constitution Act, 1961 (Act 32 of 1961) the terms "Governor-General" and "Union" are to read "State President" and "Republic" respectively.
8. Public Safety Act, 1953 (Act 3 of 1953), section 2(a), (b) and (c)
9. Defence Act, 1957 (Act 44 of 1957), section 1(1)
10. Civil Defence Act, 1977, section 3(1)
11. Ibid., section 3(2)
12. Ibid., section 3(3)
13. Ibid., section 5(1) and (2)
14. Republic of South Africa, Government Gazette, 153 (5962), March 31, 1978 and 165 (6317), March 2, 1979
15. Ibid., 162 (6244), December 15, 1978
16. Ibid., regulation 1
17. Ibid., regulation 1(1) (xvi)
18. Ibid., regulation 2
19. Ibid., regulations 6 to 12
20. Civil Defence Ordinance, 1977 (Ordinance No. 8 of 1977), section 2(2) and (3)
21. Ibid., section 2(4) and (5)

22. Ibid., section 10
23. Province of the Cape of Good Hope, Official Gazette, 4028, December 15, 1978, regulation 3(1)
24. Ibid., regulation 4
25. Ibid., regulation 7 and 8
26. Province of the Cape of Good Hope, Official Gazette, 4028, December 15, 1978, regulation 12
27. Fund-raising Act, 1978 (Act 107 of 1978), section 2
28. Ibid., section 7(1)
29. Ibid., section 22(2)
30. Ibid., section 18(a) and (c)
31. Ibid., section 19(1); 21(2) (a) and (b); and 22(c)
32. Ibid., section 29(1)
33. Republic of South Africa, Government Gazette, 170 (6631), August 24, 1979, regulation 2
34. Ibid., regulation 5(a) and (b)
35. Fire Brigade Services Ordinance, 1978 (Ordinance No. 14 of 1978), section 4
36. [Stated Household Incomes for 1975], Monthly Statistical and Marketing Digest, 12(4), April 1976, p.64
37. Republic of South Africa, Department of Social Welfare and Pensions, Information Brochure on Social Pensions and Grants, Pretoria, December 1979, p.1

5

SOUTH AFRICAN DEFENCE FORCE

CONTENTS

1. INTRODUCTION
2. PAST CIVIL DEFENCE ACTIVITIES
3. STRUCTURE
4. CIVIL DEFENCE AND RELATED FUNCTION
5. CAPE TOWN BASED OPERATIONS
6. COMMENTS
7. NOTES

1. INTRODUCTION

- 1.1 Of all the organisations that become involved in disaster relief the military is traditionally considered the most important because of its vast resources and its ability to control and co-ordinate large forces.
- 1.2 Since 1652 various forms of militia were created. During the Batavian occupation of the Cape the regular troops of the Dutch-East India Company and the "burgher" militia were responsible for the Cape's defence. British forces remained in South Africa for just more than a century after their victory at the Battle of Blaauberg in January 1806 had secured them the possession of the Cape of Good Hope.¹ With the formation of the republics in the Transvaal and the Orange Free State and the Anglo-Boer war various other forms of militia were introduced. An imperial military command remained in South Africa until the Union Government had taken full control of defence in terms of the South Africa Defence Act, 1912 (Act 13 of 1912) in 1921.² The South African Defence Force (SADF) was involved in World War I, World War II and the war in Korea and was responsible for civil defence activities during the Second World War.
- 1.3 The present day defence activities are governed by the Defence Act, 1957 (Act 44 of 1957) as amended.
- 1.4 On April 1, 1968 the SADF accepted responsibility for the Division of Civil Defence which later became a directorate within the SADF.³
- 1.5 In January 1974 the Chief of the Army stated:

We are today faced with, and involved in, modern unconventional warfare, the techniques of which are not only aimed at the soldier in the front line, but also at the home front. It is, therefore, of vital importance that we should achieve and maintain the highest degree of preparedness on both fronts.⁴

Statements such as these were increasingly being echoed in political and military circles and was partly responsible for the

investigation undertaken by the SADF and the four provinces which led to the introduction of the new civil defence legislation and the adoption by the provinces of uniform ordinances.

- 1.6 The SADF was largely responsible for the considerable progress made in the field of civil defence over the past decade and whilst the responsibility for its implementation remains that of the local authorities the SADF occupies a central position in the overall national planning of civil defence.
- 1.7 Some issues raised are treated superficially because of the sensitivity of certain SADF material.

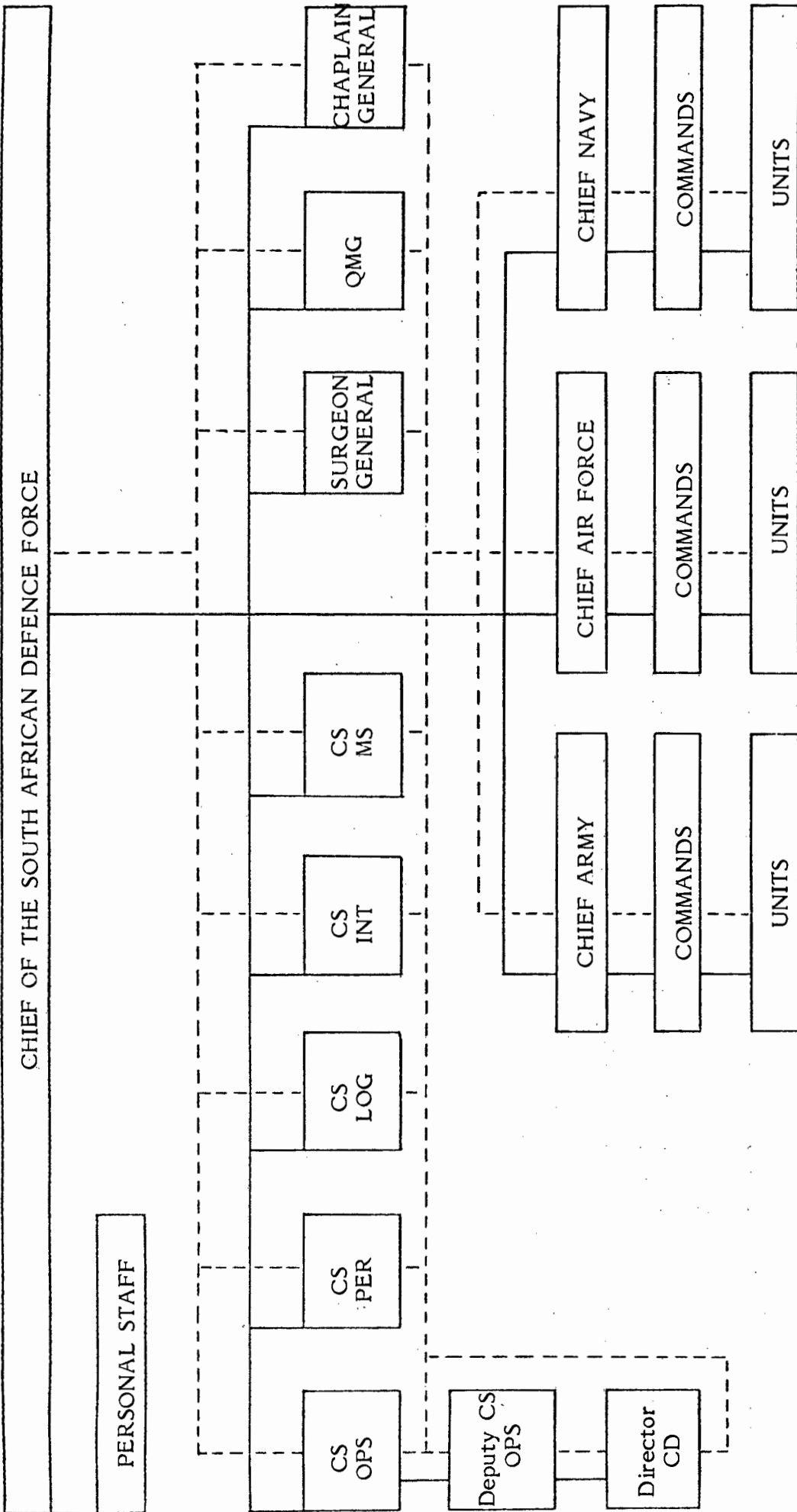
2. PAST CIVIL DEFENCE ACTIVITIES

- 2.1 In spite of the fact that the responsibility for civil defence rested only with the SADF during the War and from 1968 onwards the SADF, apart from its civil defence planning and organisational activities, was involved in many disaster aid operations since its inception. Whilst the SADF has been involved in disaster aid on occasions too numerous to mention the more recent and prominent disaster aid operations are briefly cited.
- 2.2 On July 8, 1974 persons stranded on the roof of the burning Civitas Building in Pretoria were rescued by helicopter in what was known as "Operation Civitas".⁵
- 2.3 "Operation Fodder" which involved nearly 1 000 men and thousands of vehicles in the transport of fodder to drought stricken areas during 1970 served to save thousands of herd of cattle from starving.⁶
- 2.4 During widespread floods in 1974 and 1975 the SADF provided emergency housing in the form of 2 000 tents, transported 806 metric tons of emergency supplies and evacuated 1 071 people from disaster-stricken areas.⁷

- 2.5 During August 1973 the SADF rescued 58 people from freezing to death when they were trapped by a severe snowstorm in various parts of the Maluti Mountains.⁸
- 2.6 The Army, Air Force and Navy were involved in providing relief to Angolan refugees; the largest operation of its kind. The Army, apart from providing housing, food, medical care and transport for thousands of refugees, protected them from the savage action by remnant liberation forces in the south of Angola.⁹ The Air Force and Navy conducted reconnaissance flights and sweeps along the Skeleton Coast; escorted motor convoys and small boats and provided emergency rations; and airlifted refugees who were stuck in an attempt to cross the desert.¹⁰
- 2.7 On the morning of July 1, 1966 helicopters of 17 Squadron airlifted all 76 persons on board the "Seafarer" which was wrecked on the rocks off Mouille Point during a severe storm.¹¹
- 2.8 The disaster relief provided by the SADF during "Operation Skudding" was considerable (see 10.4).

3. STRUCTURE

- 3.1 The SADF is a monolithic and integrated structure which consists of three conventional fighting services - the Army, the Air Force and the Navy. The chiefs of these services command their respective services and derive their authority from the Chief of the SADF, who as Head of the Department of Defence is responsible to the Minister of Defence for the execution of the Government's defence policy.¹² A diagram of the structure of the SADF appears in Fig 2.
- 3.2 In terms of section 5 of the Defence Act, 1957 the SADF comprises of the Permanent Force, the Citizen Force and Commandos which are in turn established in terms of sections 9, 16 and 32 of the Act respectively.
- 3.3 The Permanent Force, comprising some 20 000 posts embraces the three services and a number of sections which support these



command
 staff
 CD - Civil Defence
 CS - Chief of Staff
 INT - Intelligence
 LOG - Logistics
 MS - Management Service
 OPS - Operations
 PER - Personnel
 QMG - Quartermaster-General

Modified from: Supplement to Paratus, 25(4), April 1974

FIG 2

services; the Citizen Force and Commandos consist of volunteer or non-career members, the former supporting the three services whilst the Commandos function primarily in defence of their home areas under the aegis of the Army.¹³

3.4 The command in the Army is organised on a regional basis, in the Air Force on a functional basis and in the Navy on a combination of the two. The Air Force consists of four operational commands and a logistics group and the Navy consists of three squadrons and various support vessels.¹⁴

3.5 Whilst the Army consists of various corps it is divided into 9 territorial commands to facilitate command and control, each command headquarters commanding certain designated units in its territory.¹⁵ A diagram of the structure of the Army appears in Fig 3.

3.6 Civil defence functions are vested in the Directorate of Civil Defence which functions under the Chief of Staff and is decentralized through the Chief of the Army to the various commands.¹⁶ The structure of the Western Province Command is represented in Fig 4.

4. CIVIL DEFENCE AND RELATED FUNCTION

4.1 In terms of the Civil Defence Act, 1977 (Act 67 of 1977), the Minister of Defence is the supreme authority (see 4.2).

4.2 Although the prime responsibility for civil defence rests with the third level of government the Central Government, through the SADF is responsible for:

4.2.1 The introduction and enforcement of appropriate legislation.

4.2.2 The determination of relevant policy.

4.2.3 The overall control of national action.

4.2.4 The co-ordination of activities at a national level.

4.2.5 Assistance to provinces in the activation and development of civil defence in those provinces.

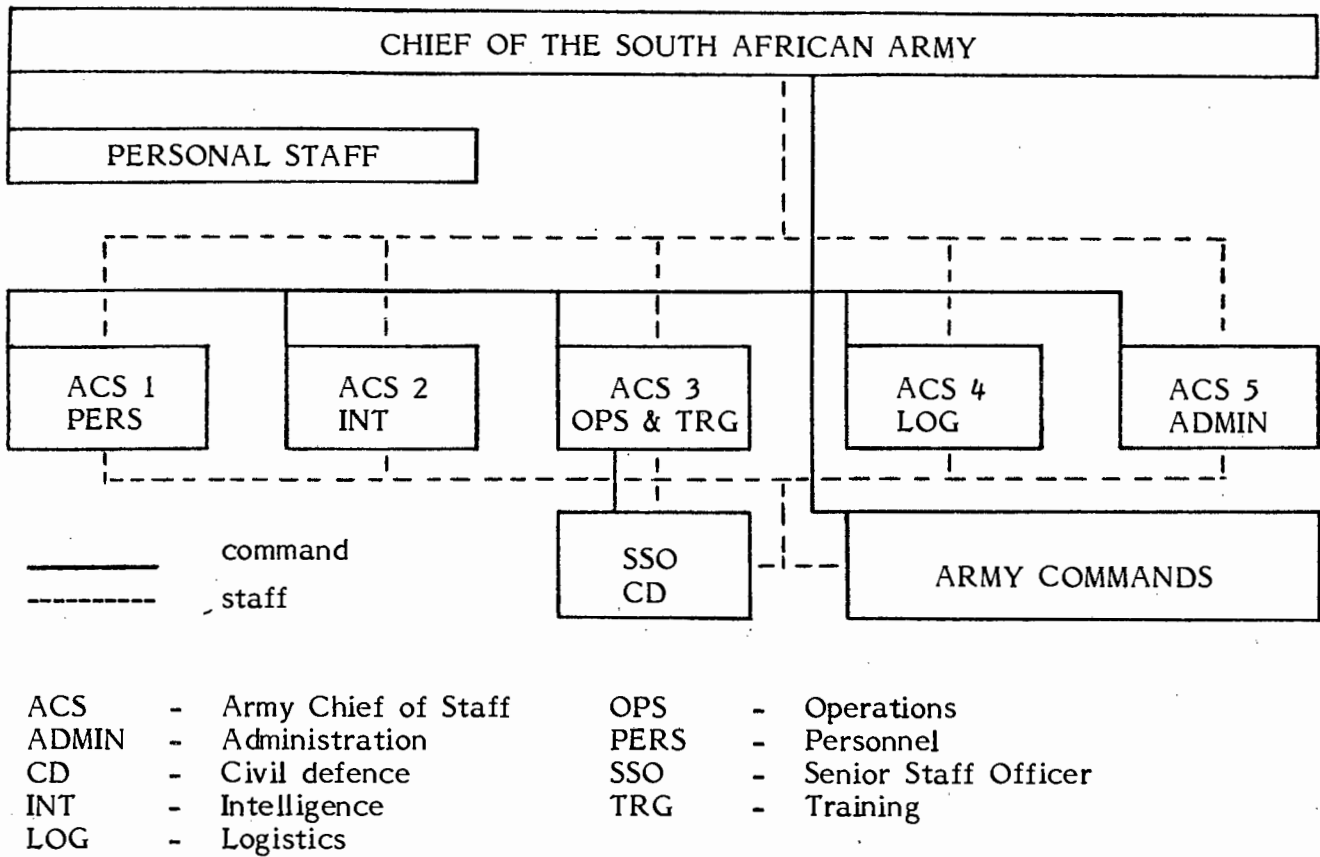


FIG 3

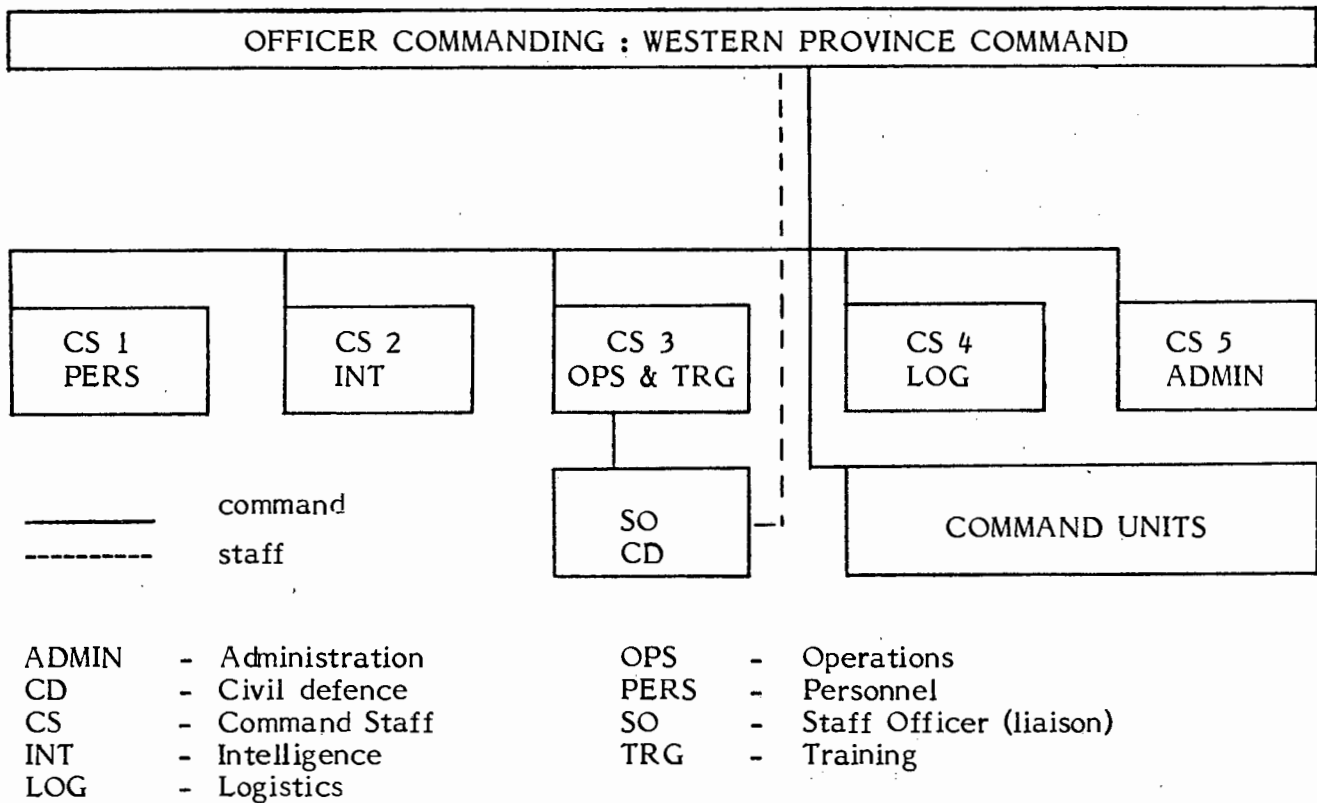


FIG 4

- 4.2.6 Periodic evaluation of the state of preparedness of local authorities and advice to provinces in this regard.
- 4.2.7 [For support and the provision of] aid by way of manpower and means at [its] disposal in the event of a disaster assuming such proportions that it cannot be controlled by local means.¹⁷
- 4.3 An intensive investigation undertaken by the SADF in conjunction with the provinces brought to light certain problems that local authorities were experiencing in the implementation of civil defence and led to the passing of improved legislation and the adoption by the provinces of uniform ordinances. The introduction and tacit enforcement of the legislation led to an increase in the number of local authorities, identified for civil defence purposes that received "A" gradings (planning complete, tested for practicability and approved by an army command) as follows:
- | | | | |
|------|----------------|-----|------------------------------------|
| 1977 | 657 identified | 94 | A gradings or 14,30% |
| 1978 | 636 identified | 131 | A gradings or 20,59% ¹⁸ |
- 4.4 The determination of relevant policies and the overall control of national action is undertaken at various levels by, inter alia, the Cabinet assisted by the State Security Council, various inter-departmental committees and SADF councils, committees and directorates; whilst the co-ordination of activities on a national level is effected by the above-mentioned bodies and the National Civil Defence Committee administered by the SADF.¹⁹
- 4.5 The SADF assists provincial and local authorities to develop and maintain civil defence preparedness by issuing literature, arranging conferences and seminars, visiting and advising them and by assisting with planning. In addition to being jointly responsible with the Chief of the Army for the evaluation of civil defence preparedness (see 7.4.13), the Surgeon-General is responsible for the co-ordination and activation of the medical aspect of civil defence (see 7.5.3 and Fig 1).²⁰ The line and liaison functions that exist between the SADF and the provincial and local authorities are represented in Fig 5.

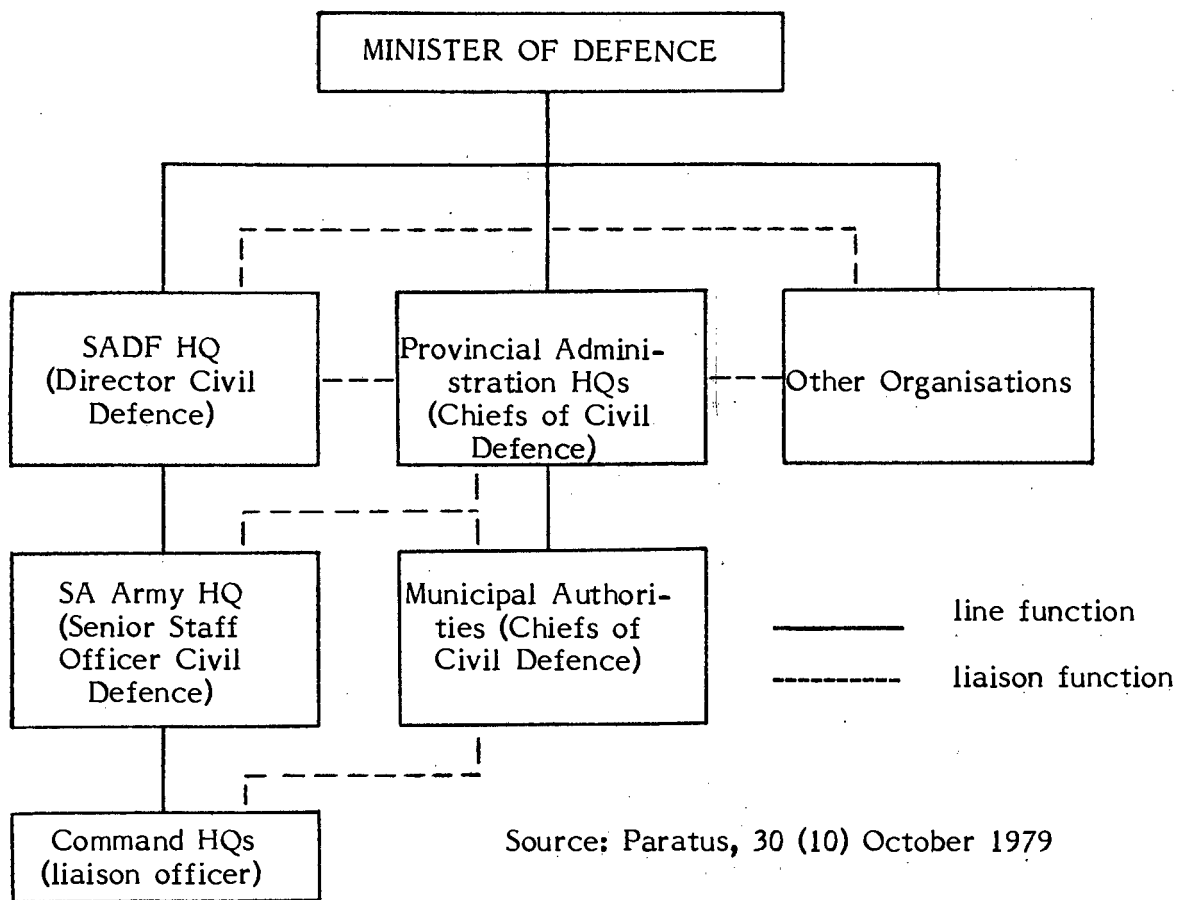


FIG 5

4.6 During 1973 the Minister of Defence appointed an inter-departmental committee to investigate fire services throughout South Africa. The findings led to a considerable improvement of services, improved fire service legislation and greater standardization of services. This in turn gave rise to improved provincial and local civil defence preparedness.

4.7 The SADF trains National Servicemen as reserve firemen to supplement local fire services and women are trained in various civil defence related fields at the SA Women's College. These servicemen and women fulfil an important function whilst in uniform and can continue to be of benefit by making their services available to their local civil defence organisations once they have completed their military service.

4.8 In terms of logistics and manpower the SADF is the best equipped organisation in the country. The vast resources at its disposal enables the SADF to provide local authorities with among other, the following support.

4.8.1 Trained firemen and fire-fighting equipment.

4.8.2 Medical services provided by the SA Medical Service which include the use of military hospitals.

4.8.3 Communications provided by the SA Corps of Signals.

4.8.4 Provision and preparation of food through the services of the SA Caterers' Corps.

4.8.5 Shelter in the form of tents et al.

4.8.6 Construction services provided by the SA Engineering Corps.

4.8.7 Various forms of transport which include ambulances, trucks, buses, helicopters, tankers et al.

4.8.8 Casualty evacuation (Casevac) services.

4.9 PECSAR (Permanent Committee on Search and Rescue) established in 1961 to co-ordinate search and rescue services in South Africa and a large portion of the surrounding oceans is dependent on the services and facilities provided by the SADF.²¹ The Inland Search and Rescue Co-ordination Centre is situated at AFB Waterkloof whilst the Maritime Search and Rescue Co-ordination Centre is situated at Silvermine. In addition to making these facilities available the SADF provides rescue aircraft, naval vessels, medical services et al.

4.10 SATEPSA (SA Telecommunication and Electrical Power Supply Authority) was formed to

co-ordinate, restrict or prohibit all matters pertaining to telecommunications and electrical power provisioning in such a manner that during emergencies the most essential services necessitated thereby can be arranged with the minimum disruption to the maximum advantage of the RSA.²²

The SADF accommodates SATEPSA and co-ordinates its activities which are decentralized through the army commands. Activities include the planning and control of telecommunications and

electrical services for emergency services such as civil defence units, search and rescue units, transport, medical care et al.

- 4.11 Apart from protecting key installations and providing other organisations with assistance during disasters, commandos are responsible for the planning and co-ordination of civil defence in areas not under the jurisdiction of a local authority.²³

5. CAPE TOWN BASED OPERATIONS

- 5.1 The Western Province Command Headquarters are situated in the Castle, Cape Town. At command level civil defence activities can be classified as non-operational and operational.
- 5.2 The non-operational civil defence activities are the responsibility of the Staff Officer, Civil Defence. His tasks include, inter alia, assisting the local authorities with their planning, evaluation of local authorities' civil defence preparedness, keeping of records of civil defence activities in the command, making recommendations with regard to the improvement of the service, and liaising with other SADF civil defence personnel.²⁴
- 5.3 Operational civil defence activities are the responsibility of the Officer Commanding who with the assistance of the Staff Officer, Operations, commands and controls all the required units and resources in his territory. The operations room will be used for this purpose as it contains all the facilities such as communications, maps, records et al.
- 5.4 The following units situated near Cape Town could be used to support local authorities in the event of a disaster:

Wynberg

- | | | |
|-------------------------------|---|-------------------|
| 2 Military Hospital | - | medical treatment |
| 11 Supply and Transport Depot | - | transport |

Wingfield

- | | | |
|------------------------|---|--------------------------|
| 6 Base Ordinance Depot | - | tents, utensils, bedding |
|------------------------|---|--------------------------|

Ysterplaat

22 Flight	}	-	helicopter rescue and
30 Squadron		-	casualty evacuation
27 Squadron		-	search and rescue

Langebaan

SAS Flamingo	-	sea rescue
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Citizen Force units include 3 and 20 Field Ambulance, 8 Engineering Squadron, 33 Mobile Hospital and 71 Signal Unit.

- 5.5 In addition to the above-mentioned specialised units many other units or commandos operating in the area could be utilized in terms of manpower and facilities such as first-aid, catering, communications as all units are equipped with such facilities for operational purposes.
- 5.6 Western Province Command regularly participates in civil defence exercises.

6. COMMENTS

- 6.1 In a vast country, sparsely populated in its rural areas, surrounded by sea and "hostile" nations and suffering from a skilled manpower shortage the composition of the defence force is of importance. The composition of the SADF (see 5.3.3) ensures continuity of command, logistics and training; the availability of the required manpower in the form of non-career members; and the deployment throughout the country of forces capable of operating locally.
- 6.2 The clearly defined command structure which is organised on a regional and functional basis (see 5.3.1, 5.3.4, 5.3.5) ensures rapid and effective mobilization of forces. This has repeatedly been evidenced when the SADF has been called upon to provide disaster relief (see 5.2.8).
- 6.3 Up until now the SADF has been the largest single provider of disaster relief and as such is to be commended for its operations, particularly those related to the Boland earthquake disaster and

the Angolan refugee crisis. In both these and other instances the SADF has demonstrated its ability to cope with a wide variety of disasters (see 5.2).

- 6.4 Whilst the training of certain servicemen (see 5.4.7) is of benefit to civil defence the benefit could be considerably enhanced should all servicemen be trained in fire fighting and first aid. Upon completion of their military duties they could constitute a formidable reserve upon which local civil defence organisations can draw.
- 6.5 Cape Town is one of few South African cities that can utilise all three services of the SADF for support. All three services are well established locally and command a considerable number of men and resources (see 5.5).
- 6.6 The SADF's achievements in terms of past activities (see 5.2) and the fulfillment of its responsibilities (see 5.4) are considerable. These achievements; its vast resources of manpower, supplies and equipment crucial in large scale disaster relief; and its bureaucratic structure and hierarchy of authority (see 5.3) which makes the control of large forces of men possible under disaster conditions would strongly support continued SADF control of civil defence. Taken further it may suggest that the SADF is capable of assuming complete control and responsibility and thus relieving provincial and local authorities of their civil defence responsibilities. The absence of viable local civil defence organisations adds impetus to this stance.
- 6.7 The SADF is as a result of the nature of its function aware of the threats and it has taken all the required steps in terms of its civil defence responsibilities. The SADF does not have the direct authority to ensure that local authorities who do not share the SADF's concern comply with the national civil defence policy of implementation at the third level of government. Should such authority exist the use of the same could threaten local autonomy and disrupt military - civilian relationships. Van Zyl²⁵ refers to such a situation and concludes that the SADF's civil defence role will increase in importance but that at the same time the sacrifice of democratic principles should be guarded against.

6.8 According to Anderson,²⁶ the co-ordination between military units and civilian organisations is one of the major problems in military - civilian relations and the reasons are the failure of both parties in understanding each others structure and operations and the absence in many cases of viable civilian means for co-ordination of all civilian and military organisations. It cannot be expected of military authorities to provide support under the authorization of civilian authorities should they not possess the means with which to co-ordinate services. The SADF assumed full control of operations during the Boland Earthquake Disaster because no civilian organisation had been established. The onus is therefore on the local authorities to provide the facilities and thus prevent full military control.

6.9 However, the determination with which the SADF has developed civil defence (see 5.1.6, 5.4.3, 5.4.6, 5.4.10) and the senior level at which civil defence policy is determined (see 5.4.4) indicates an increased awareness and concern. This concern is based in the absence of frequent disasters largely on the threat of modern unconventional warfare (see 5.1.5). [Increased civil defence awareness and concern are aroused by national threats and crises - see 2.4.1]

6.10 During 1979 the Prime Minister informed the Senate and the House of Assembly that

The military threat against the RSA is intensifying at an alarming rate and the country is being thrown to an increasing degree on its own resources in order to ensure survival. Although terrorism is the primary threat against the RSA, growing interference by the major powers may result in an intensified military confrontation in Southern Africa.²⁷

6.11 From this statement and others made in similar vain (see 5.1.5) and the exclusion of all military related personnel from civil defence activities (see 4.3.1) it could be argued that the SADF will be increasingly deployed to fulfil its primary function of defence by means of armed combat. In such an event its civil defence activities will increasingly be curtailed.

- 6.12 Whether or not the SADF's involvement in civil defence activities will increase or decrease it may be accepted that

... the involvement of the military in natural disaster is a function of the structure of military organisations, the structure of local communities, and the structure of societies.²⁸

7. NOTES

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DEPARTMENT OF HEALTH, WELFARE AND PENSIONS

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5. CIVIL DEFENCE FUNCTION
6. CIVIL DEFENCE ACTIVITY - CAPE TOWN
7. COMMENTS
8. NOTES

1. INTRODUCTION

- 1.1 Organised welfare services were very limited and no social pensions were paid at the time of the establishment of the Union of South Africa in 1910 with the result that none of the then thirteen state departments catered specially for welfare needs.
- 1.2 The Department of Labour which was established in 1924 and later became known as the Department of Labour and Social Welfare was primarily responsible for providing social services until, as a result of the Carnegie Commission, a separate Department of Social Welfare, was established on October 1, 1937.¹
- 1.3 The former Departments of Social Welfare and Pensions were amalgamated on October 23, 1958 to become the Department of Social Welfare and Pensions.²
- 1.4 On April 1, 1980 the Departments of Health and Social Welfare and Pensions were combined under one ministry to become the Department of Health, Welfare and Pensions. The structure and function of the former two departments remain almost unchanged.
- 1.5 It is the role of the former Department of Social Welfare and Pensions that is under review in this section and will be referred to as the "Department".
- 1.6 The Department is responsible for the implementation of legislation pertinent to civil defence, namely the Civil Defence Act, 1977; the National Welfare Act, 1978 (Act 100 of 1978); the Fund-raising Act, 1978; the Social and Associated Workers Act, 1978 (Act 110 of 1978); and various pension-related acts.
- 1.7 It should be noted that unless otherwise stated the Department caters for the needs of the White population only. Similar, albeit less comprehensive in certain cases, services are provided by the Department of Co-operation and Development; the Administration of Coloured Affairs; and the Department of Indian Affairs in the case of the Blacks, Coloureds and Asiatics, respectively.

- 1.8 Structural and organisational changes and those planned for after September 1, 1980 are not included.

2. PAST CIVIL DEFENCE ACTIVITIES

- 2.1 Apart from the administration of the various disaster funds and assisting victims of minor disasters the Department has not been very active in the field of civil defence. Large-scale disaster assistance has, as a result of the infrequency of major disasters, only been given in a few instances.
- 2.2 During World War II the Department arranged and provided accommodation and comforts for 500 Polish refugee children and those transit refugees who were delayed in the main ports.³
- 2.3 The Minister of Social Welfare acted as legal guardian and provided care for 343 English and Scottish children, some of whom were placed by the Department with host parents.⁴
- 2.4 The Department assisted World War II refugees to cope with the problems related to their adaptation to unfamiliar circumstances.⁵
- 2.5 On September 6, 1974 the Department of Social Welfare and Pensions was made responsible for the care of refugees from Mozambique and Angola and it launched "Operation Refugee" which was the largest of its kind since World War II.⁶
- 2.6 By March 1975, 5 570 refugees from Mozambique were cared for in camps established by the Department at Nelspruit, Jozini and Cullinan.
- 2.7 Between November 13, 1974 and April 23, 1976, 22 736 Angolan refugees who entered South-West Africa were temporarily accommodated in camps established at Grootfontein and Tsumeb where the Department arranged for and provided food, shelter, clothing, medical care and limited professional welfare services.⁸
- 2.8 The camps in South-West Africa were essentially transit camps

from where refugees were sent to Portugal and other countries willing to receive them or to the camp at Cullinan.

- 2.9 At Cullinan the Department provided, in addition to the basic services, nine social workers to engage in short-term therapy and secondary crisis intervention by meeting the emotional, spiritual, cultural and social needs of 13 000 refugees who were accommodated there from August 14 to December 1, 1975.⁹

3. STRUCTURE

- 3.1 A Director-General heads the Department of Health, Welfare and Pensions which has its head office in Pretoria. The Department comprises three Directorates, namely that of Administration, Health and Welfare and Pensions. A diagram of the structure of the Directorate of Welfare and Pensions is contained in Fig 6.
- 3.2 The country is divided into ten regions (using magisterial districts) in terms of section 5 of the National Welfare Act, 1978 (Act 100 of 1978).¹⁰ The structure of the Western Cape regional office is represented in Fig 7.
- 3.3 A sub-regional office at Bellville; branch offices at Piketberg, Riversdale and Worcester; a place of safety and detention which can accommodate 65 children; and a crisis clinic in Cape Town resort under the regional office.¹¹
- 3.4 The regional office serves the magisterial districts of Cape Town, Simonstown, Wynberg, Vredenburg, Hopefield and Malmesbury.
- 3.5 The Western Cape Regional Welfare Board, established in terms of section 6 of the National Welfare Act, 1978, is in some measure controlled by the Department in that the members are appointed and the chairman and deputy chairman are designated by the Minister (section 7) and the administrative functions are undertaken by the Department (section 11).

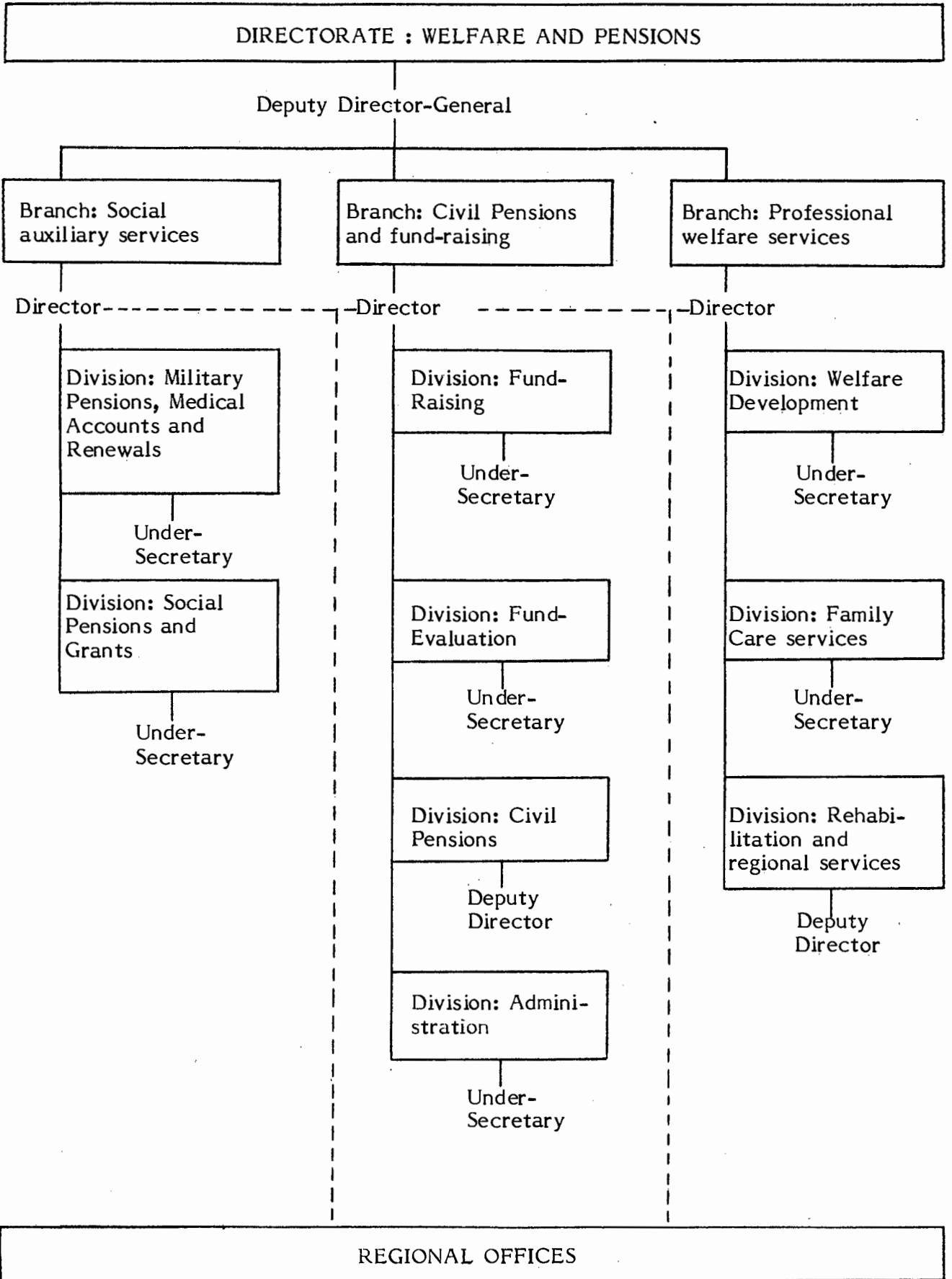
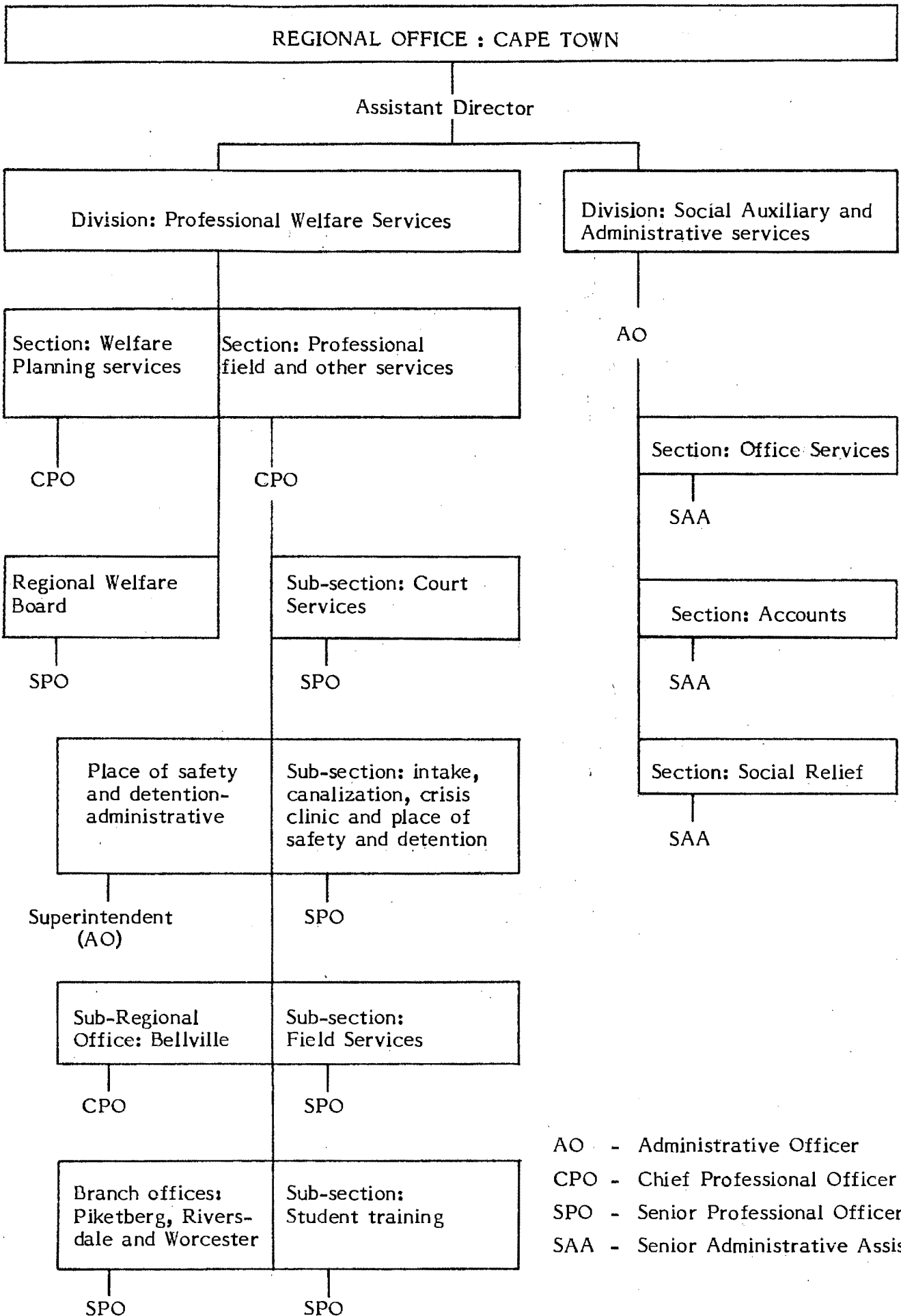


FIG 6



AO - Administrative Officer
 CPO - Chief Professional Officer
 SPO - Senior Professional Officer
 SAA - Senior Administrative Assistant

FIG 7

4. FUNCTION

4.1 GENERAL AUXILIARY SERVICES

The Department runs four rehabilitation centres [The Abuse of Dependence-producing substances and Rehabilitation Centres Act, 1971 (Act 41 of 1971)], seven places of safety and detention [Childrens Act, 1960 (Act 33 of 1960)], four homes for the infirm aged and handicapped persons [Aged Persons Act, 1967 (Act 81 of 1967)], and four settlements; administers three funds and controls fund-raising [Fund-raising Act, 1978 (Act 107 of 1978)]; and provides social relief.¹²

4.2 CIVIL PENSION ADMINISTRATION

In terms of various pension acts the Department is responsible for the administration of various state and semi-state pension schemes.

4.3 SOCIAL AUXILIARY SERVICES

The Department provides social pensions [Social Pensions Act, 1973 (Act 37 of 1973)], military pensions [Military Pensions Act, 1976 (Act 84 of 1976)], maintenance grants and family allowances [Childrens Act, 1960].

4.4 PROFESSIONAL WELFARE SERVICES

4.4.1 Combating alcoholism and drug dependence

In addition to running rehabilitation centres the Department subsidises services in this field provided by numerous organisations.

4.4.2 Control services

Crisis intervention, short and long-term treatment are provided in the form of probation, statutory and non-statutory services for a variety of social problems.

The Department runs two crisis clinics in Johannesburg and Cape Town and provides social work services at State psychiatric hospitals and care/rehabilitation centres.

4.4.3 Child and family care

In addition to running places of safety and detention, the Department subsidises children's homes and places of care.

4.4.4 Care of the aged and handicapped

The Department subsidises homes, club service centres, hostels and protective workshops for the aged and handicapped.

4.4.5 Welfare Development, research and statistics

The Department undertakes various projects with the aim of developing the welfare services, does research and provides statistics.

5. CIVIL DEFENCE FUNCTION

5.1 While many of the services provided in terms of its function could indirectly be related to civil defence, certain provisions are more specifically civil defence orientated.

5.2 In terms of section 6 (b) of the Civil Defence Act, 1977 (Act 67 of 1977) the Minister of Defence may request a head of a state department to perform or to cause the performance of functions in terms of the Civil Defence Ordinance, 1977 (Ordinance No. 8 of 1977).

5.3 In terms of the Civil Defence Act, 1977 and regulations the Department is responsible for providing compensation for physical injuries, death and disability resulting from civil defence activities (see 4.3).

- 5.4 The Department administers the Disaster Relief Fund and the Refugee Relief Fund established in terms of the Fund-raising Act, 1978.¹⁴
- 5.5 One of the functions of a regional welfare board is "to obtain the co-operation of welfare organisations in order to ensure efficient and co-ordinated action by such organisations during emergencies".¹⁵
- 5.6 Various forms of social relief, whilst not primarily intended for civil defence purposes may be issued in cases where the breadwinners have died or are prevented from providing for their families as a result of an emergency.¹⁶
- 5.7 In terms of a departmental circular, regional and branch offices must establish and maintain contact with civil defence chiefs and assist them with planning by advising on places of shelter and care and facilities; the physical administration of such services with specific reference to sanitation, water, electricity, housing needs, food supplies and the responsibility for the preparation thereof; the spiritual needs of those being cared for; and professional welfare services.¹⁷
- 5.8 A departmental arrangement contained in a circular empowers certain officers to purchase emergency provisions in the event of a disaster.¹⁸ (classified document)

6. CIVIL DEFENCE ACTIVITY - CAPE TOWN

- 6.1 Whilst some of the existing services could easily be modified to meet civil defence needs, planning for such modification and for additional services require comprehensive planning.
- 6.2 The regional representative (assistant director) and his deputy (chief professional officer) are responsible for civil defence. Access to records and documentation is restricted to these two persons.

- 6.3 The regional representative has copies of all the local authorities' civil defence plans.
- 6.4 Complete records on all possible places of shelter and care (public buildings, halls, churches, open grounds, etc.) include information on sanitation, water and electrical supply and cooking facilities.
- 6.5 Records of all welfare organisations including creches/play groups, children's homes and homes for the aged. In the magisterial districts of Cape Town and Wynberg this includes 50 creches/play groups, 14 children's homes and 18 homes for the aged which provide accommodation for 2 131 children, 675 children and 2 228 aged persons respectively.¹⁹
- 6.6 All the local authorities within the jurisdiction of the regional office have been informed of the Department's role in terms of civil defence and assistance was offered to these authorities.
- 6.7 The regional representative and his deputy do not serve on any of the local authorities' civil defence committees.
- 6.8 The only forms of communication catered for are those of the telephone and telex-printer.
- 6.9 The Western Cape Regional Welfare Board has not embarked upon any civil defence activities.
- 6.10 Professional welfare services for civil defence purposes have not been organised.
- 6.11 No modus operandi has been determined for operational duty.

7. COMMENTS

- 7.1 Whilst civil defence is primarily the responsibility of the local authorities, the new Department of Health, Welfare and Pensions is capable of increased activity in this field.

- 7.2 Effective civil defence functioning is largely dependent on an intimate knowledge of a community's structure, its resources and its people and their needs.
- 7.3 The State department most suited in this regard is the recently established Department of Health, Welfare and Pensions. It has a large staff of health and welfare personnel, it exercises control over many health and welfare activities through the subsidisation thereof and its function is primarily community orientated.
- 7.4 A serious anomaly does however exist in that whilst the Department's "health" services are for all race groups the "welfare" services are only for Whites. In terms of civil defence the consequences are disturbing. In Cape Town for example the local authority is required to liaise with four different state departments who serve four different race groups. This gives rise to the quadruplication of record systems and services and other organisational problems. Similarly, four regional welfare boards exist in Cape Town.
- 7.5 The record of past civil defence activities is commendable. The Department went to great lengths to meet the needs of all refugees - irrespective of race.
- 7.6 Social workers' knowledge of communities and their people and their ability to bring emotional comfort to distressed persons make them important in terms of overall civil defence planning. Since the Commission for Social Work [established in terms of the National Welfare Act, 1965 (Act 79 of 1965) and under the aegis of the Department] commenced with the registration of social workers in 1970, 5 490 persons had registered by April 30, 1979.²⁰ In spite of the fact that the Department has indirect control over most social workers by virtue of its subsidisation of salaries; its indirect control of the Council for Social and Associated Workers established in terms of the Social and Associated Workers Act, 1978 (Act 110 of 1978); and its own large staff, no national effort has been made to train and incorporate social workers in civil defence activities.

- 7.7 Similarly, a civil defence social work service does not exist. In the Cape Peninsula there are many practicing as well as non-practicing social workers who could be trained and co-ordinated to fulfil civil defence needs. Cape Town has a crisis clinic which specialises in relieving trauma induced emotional stress. The clinic could be used to train volunteer social workers to deal with massive psychic trauma and it could serve to co-ordinate a service designed specifically to meet civil defence needs.
- 7.8 Whilst various records are kept by the regional office (see 6.6.4) the absence of more specific information on persons who are capable of catering and suppliers of provisions could cause a delay in the delivery of the service.
- 7.9 Considering the facts contained in 6.6.4 and 6.6.5; the fact that the regional office and the regional welfare board serve to co-ordinate all the welfare services in the region; and the important role that the Department plays in general (see 6.5) it is astounding that the regional office is not represented on the various local authorities' civil defence committees. The regional representative should be represented on the main civil defence committee of every local authority and he or his deputy should be appointed as the chairman of a sub-committee representing various welfare and other organisations concerned with emergency caring services.
- 7.10 As a result of the above-mentioned the communication services of the local authorities cannot be utilized by the regional office. The present communication arrangements are inadequate and the use of civil defence radios, runners and vehicles are required.
- 7.11 Whilst specific statutory provisions with regard to the functions of the regional welfare board exists (see 6.5.5) no action in this regard has been taken locally in spite of its important role in terms of planning. [The board consists of members representing a wide variety of welfare institutions].
- 7.12 The restricted access to civil defence material and the absence of

involvement of the other members of staff (see 6.5.8 and 6.6.2) defeats one of the primary aims of civil defence - namely involvement - and fosters the greatest enemy, apathy. The study of this Department was difficult because of this attitude. [In terms of the Department's function very little material can be considered to be of strategic importance.]

8. NOTES

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 - children's homes on July 1, 1980
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20. "Nasionale Welsynraad", Social Work/Maatskaplike Werk, 15 (3), August 1979, p. 147

7

PROVINCIAL ADMINISTRATION OF THE CAPE OF GOOD HOPE

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7. CAPE PENINSULA LOCAL AUTHORITIES AMBULANCE SERVICE (CPLAAS)
8. COMMENTS
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1. INTRODUCTION

- 1.1 In terms of section 6 of the South Africa Act, 1909 the Colonies of the Cape of Good Hope, Natal, the Transvaal and the Orange River Colony became the four original provinces of the Union under the names of Cape of Good Hope, Natal, Transvaal and Orange Free State.
- 1.2 The Cape Province is the largest of the four provinces which form the Republic of South Africa. It covers an area of 680 000 sq. km or 57 per cent of the Republic and comprises approximately 75 per cent of the South African coastline.¹ The Province borders South West Africa, Botswana, Bophuthatswana, Lesotho and Transkei. The Cape Province has a population of 4.9 mil, the Transvaal 8 mil, Natal 2.5 mil and the Orange Free State 1.8 mil (excluding Black Areas).²
- 1.3 The Provincial Council of the Cape of Good Hope or the Provincial Administration as it will be referred to, has as result of infrequent disasters not been actively involved in civil defence activities in the past. An exception was the precautionary measures adopted against air raids during World War II with the introduction of compulsory evacuation drills, fire fighting and first aid exercises (details of the action to be taken by schools during an attack were outlined in the Education Gazette of the time).³
- 1.4 As the middle tier of government responsible for a variety of services, its importance in terms of civil defence was enhanced with the enactment of the Civil Defence Act, 1977 (Act 67 of 1977). This Act empowered the Provincial Administration to make the Civil Defence Ordinance, 1977 (Ordinance no. 8 of 1977) which presently governs the Province's civil defence activities.
- 1.5 While the primary responsibility for the planning and functional execution of civil defence activities rest with the local authorities the Provincial Administration is responsible for the overall control and co-ordination of these activities through its Department of Local Government. The Department of Education is indirectly involved in civil defence activities by introducing pupils to civil

defence related activities. The Department of Hospital Services is responsible for the provision, maintenance and co-ordination of medical services in the form of hospitals, the Emergency Services Centre and ambulance service.

- 1.6 The Provincial Administration has taken a lead in the development of civil defence and its emergency planning is more advanced than similar planning in the other provinces. The Emergency Services Centre is the only one of its kind in South Africa.
- 1.7 The Emergency Services Centre and the Cape Peninsula Local Authorities Ambulance Service (CPLAAS) form an integral part of the medical service provided by the Department of Hospital Services and are dealt with in separate sections to facilitate presentation.
- 1.8 In certain sections specific information has been omitted because of its classified nature.

2. STRUCTURE

- 2.1 Section 68 of the Republic of South Africa Constitution Act, 1961 (Act 32 of 1961) acknowledges the existence of provincial councils established in terms of section 70 of the South Africa Act, 1909 and provides for the constitution of provincial councils. The Provincial Council of the Cape of Good Hope has 55 members.⁴
- 2.2 In terms of section 66 the chief executive officer known as the administrator is appointed by the State President. The administrator is the chairman of the executive committee which in addition to the chairman has four members appointed in terms of section 76. These members are known as MECs. The executive committee conducts the administration of provincial affairs on behalf of the provincial council (section 79).
- 2.3 The provincial councils are empowered in terms of section 84 to make ordinances relating inter alia to education, hospitals and municipal institutions.

- 2.4 The structure of the Provincial Administration as it pertains to civil defence is contained in Fig 8. The Provincial Administration is divided into various departments, that of Local Government and Hospital Services being more closely related to civil defence activities. The directors of these departments are responsible through the Provincial Secretary to the MECs in charge of these portfolios.
- 2.5 The Provincial Civil Defence Co-ordinating Committee chaired by the Director of Local Government and consisting of representatives from the Departments of Roads, Works, Education and Hospital Services; state departments (regional level); local authorities; and the private sector serves to co-ordinate organisations, advise national bodies and provide guidelines for local authorities' civil defence activities.⁵
- 2.6 The Provincial Civil Defence Medical Sub-Committee chaired by the Director of Hospital Services and consisting of all medically orientated bodies on provincial level "implements policy, activates and co-ordinates all Civil Defence Medical action, and prescribes to and advises local Civil Defence Medical Committees."⁶
- 2.7 The Provincial Administration is seated in Cape Town, the Emergency Services Centre in Bellville and the Cape Peninsula Local Authorities Ambulance Service and Training Centre at Ndabeni.

3. DEPARTMENT OF EDUCATION

- 3.1 The Department of Education's annual expenditure amounts to 33 per cent of the Province's budget and caters only for White Pre-primary, Preparatory, Primary and Secondary Schools.⁷
- 3.2 The Department's present civil defence related activities are limited and consequently responsibility is not vested in a central figure. Responsibility for the functional implementation rests with the headmasters of schools whilst the control thereof is the responsibility of the school inspectors.

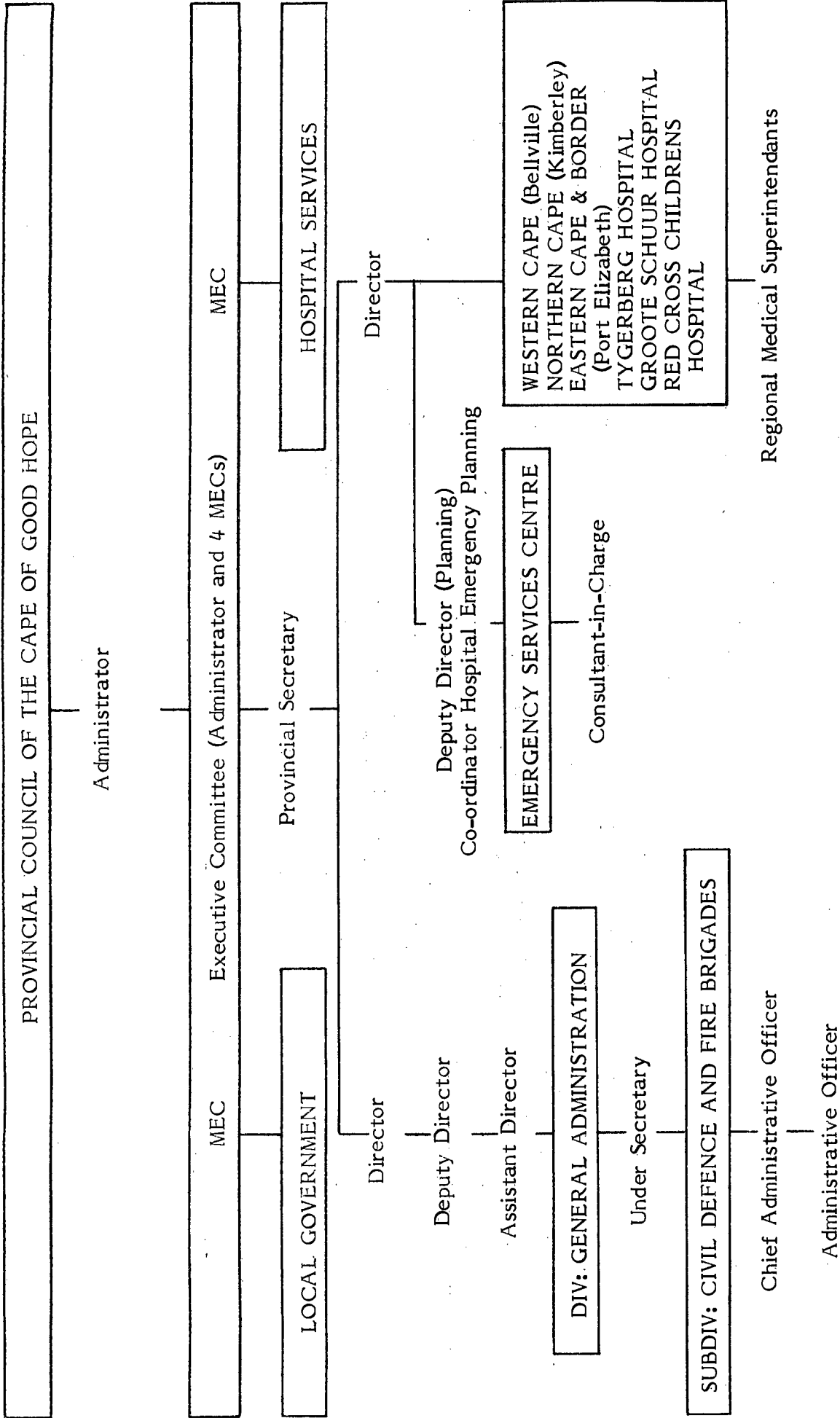


FIG 8

- 3.3 On January 1, 1973 the Department introduced the Youth Preparedness Program which included components on home nursing, first aid, fire fighting and emergency planning for schools.⁸ These programs were further developed to reach the present day standard.
- 3.4 Education programs introduced by the Department from time to time such as the prevention of veld and mountain fires are of consequence to civil defence (see 3.5.10.3). This program sets out the dangers and legal implications of such fires.⁹
- 3.5 Previously it was the Department's policy not to equip schools with fire fighting equipment but merely to advocate evacuation during a fire.¹⁰ After the introduction of civil defence emergency plans for schools during 1975 and the civil unrest during 1976 the policy was altered and schools were equipped to fight fires.¹¹ Further, a detailed guide for the design of fire protection equipment and fire drills for educational buildings was drawn up.¹²
- 3.6 In the light of the escalating terrorist activity (see 3.5.2) the Department recently instructed all educational institutions to take counter-measures.¹³
- 3.7 The aim of the Youth Preparedness Program is to inter alia "... train pupils to protect life and property, as far as possible in times of unrest or disaster and to minimise the disruption resulting from any catastrophe."¹⁴
- 3.8 Schools are required to adopt emergency plans which include provisions for a civil defence co-ordinator (headmaster), a deputy (vice-principal), a control centre, a warning system, communications, evacuation, fire fighting, first aid and traffic control.¹⁵ Schools are advised on how to develop the plan, are encouraged to liaise with the local civil defence authorities and school inspectors assess preparedness.
- 3.9 Teachers periodically attend conferences and training sessions arranged by the Department to acquire the required knowledge and skills related to civil defence.¹⁶

- 3.10 Primary school children are, because of their youth, only introduced to the basic civil defence activities such as fire fighting and evacuation by means of practical demonstrations and exercises.¹⁶
- 3.11 The Youth Preparedness Program for Secondary schools is more elaborate and includes detailed syllabi for fire fighting, first aid and home nursing.¹⁶
- 3.12 The degree of implementation of the program is largely dependent on the enthusiasm, time and availability of trained staff.¹⁶

4. DEPARTMENT OF LOCAL GOVERNMENT

- 4.1 In terms of the Civil Defence Act, 1977 the Provincial Council is responsible for making appropriate ordinances to ensure that civil defence services are implemented at local authority level. The Department of Local Government is responsible for ensuring that local authorities implement the various provisions laid down in terms of a variety of ordinances. Similarly the Department is responsible for implementing provisions contained in the Civil Defence Ordinance, 1977 by means of co-ordination and control of local authorities' civil defence planning and functional execution of services.
- 4.2 In terms of an appointment made by the Administrator acting in terms of section 3(1) of the Ordinance the Director of Local Government is responsible for the general administration of the Ordinance and the person in charge of the Province's civil defence activities.¹⁷
- 4.3 An Administrative Control Officer and his staff are responsible for the functional execution of the Director's responsibilities by means of liaison with all the local authorities in the Cape Province.
- 4.4 Unlike the other provinces the whole of the Cape Province is divided into either municipalities or divisional councils. At the beginning of 1980 the Administrator reduced the number of

divisional councils from 86 to 38 by combining certain councils in terms of section 8 of the Divisional Council Ordinance, 1976 (Ordinance no. 18 of 1976). Within these divisional council areas there are 226 municipalities.¹⁷

4.5 As difficulties were encountered in the rural areas where the population favoured joining services in the municipal areas which serve as their business and social centre rather than the rural services, the Regulations under the Civil Defence Ordinance, 1977 were amended enabling such membership.¹⁸ Further, the Department of Local Government proposes amalgamating many of the 264 municipal and divisional council civil defence organisations to form approximately 150 organisations serving both rural and urban areas.¹⁷

4.6 For civil defence purposes the 38 divisional council head offices will serve as co-ordination centres. The Department is in the process of establishing HF radio communication with these 38 centres who in turn are establishing VHF radio links with various local civil defence organisations (municipalities or wards in the divisional council area). In certain instances farmers will have radio links with the local civil defence organisations. The local radio networks are in daily use for normal services but serve also for civil defence during operations. Once the project is complete the Provincial Administration will have radio links with all the civil defence organisations in the Cape Province.¹⁷

4.7 The Department is in the process of establishing a control centre in Cape Town to co-ordinate and control civil defence services in the Cape Province in the event of a disaster. The centre located in the Cape Provincial Building will, upon completion, have radio links with all civil defence organisations, the SA Army at the Castle and Metro Control in Bellville. (see 7.6.3) Records of Provincial equipment, supplies, services, buildings and manpower throughout the Province will be kept in the centre. Detailed maps using the SADF map grid reference system will be housed in the centre. The centre has its own emergency power supply and the necessary security precautions apply. The centre only becomes operational during a declared disaster (see 4.4.1) and will be manned by trained civil defence personnel.¹⁷

- 4.8 One of the Department's main civil defence tasks is to assist local authorities to develop and maintain civil defence organisations. Apart from regular visits by Department staff to local authorities to determine the needs and to assist with planning; the Department issues various directives, memoranda and circulars to assist local authorities. A detailed directive explaining what action was required in terms of section 2 of the Civil Defence Ordinance, 1977 (see 4.4.2) was issued to local authorities in an effort to assist the authorities in their interpretation of the legislation and to ease the burden of establishing a new service. It should be noted that this directive specifically excludes action to be taken in terms of civil defence shelters.¹⁹ Similarly, the Department issued a comprehensive "General Guidelines: Planning of Civil Defence in Rural Areas".²⁰ This document contains all the information required to introduce civil defence to the community and to develop a service. It also contains a variety of relevant pro forma documents required for civil defence planning.
- 4.9 The Department regularly furnishes local authorities with information on new developments and guidelines pertaining to various aspects of civil defence. During 1980, for example, circulars containing information and guidelines on such issues as SADF assistance; citizen band users and telephone listings; and the planning of the medical aspect were issued.²¹
- 4.10 The Provincial Administration through the Department of Local Government is responsible for limited subsidization of certain services. The Department has assisted certain local authorities to acquire radio communications equipment and in terms of section 2 of the Fire Brigade Ordinance, 1978 (Ordinance no 14 of 1978) provision is made for the subsidization of fire services. As result of the current financial situation this scheme is not fully operational.²²
- 4.11 The Department serves to arrange training for civil defence members who do not have their own training facilities. Fire fighting courses are conducted by the larger municipalities while traffic control is conducted by the Traffic Control Section of the Provincial Roads Department.²³

- 4.12 To enable the Department to keep abreast with the state of preparedness of the various local authorities a six-monthly progress report form reporting on statistics and action taken in terms of the directive issued (see 7.4.8), was devised.²⁴
- 4.13 To determine the local authorities' state of preparedness a system of grading from A to D is being devised by the SADF to replace the old A to F scale. The Department is responsible for conducting the D to B grade tests whilst the A grade test is conducted by representatives of the Inspector-General of the SADF, the Chief of the Army, the Surgeon-General and the Provincial Administration.²⁵

5. DEPARTMENT OF HOSPITAL SERVICES

- 5.1 The Director of Hospital Services is responsible for all medical related services provided by the Provincial Administration. The Deputy Director (Planning) also serves as the co-ordinator of Hospital Emergency Planning.
- 5.2 As the second tier of government, the Provincial Administration, through its Department of Hospital Services, is responsible for the second level of the country's civil defence medical component (see Fig 1).
- 5.3 To deal with this responsibility the Provincial Civil Defence Medical Sub-Committee under the chairmanship of the Director was established in addition to the hospital emergency services. The purpose and functions of the Sub-Committee are:
- .1 The implementation of the policy laid down by the National Civil Defence Medical Committee;
 - .2 The activation and co-ordination of the medical aspects of Civil Defence in the Province; and
 - .3 The furnishing of guidelines to local authorities in respect of the medical aspects of Civil Defence.²⁶
- 5.4 The implementation of the policy laid down by the Surgeon General through the National Civil Defence and Medical Committees is undertaken by the Director through his Inspectorate

by means of visits to local authorities to explain the medical component of civil defence action.²⁷

5.5 Various hospital emergency plans based on the principles laid down by a committee chaired by Dr. H. Moross for this purpose in 1967 have been adopted and "all Cape hospitals have emergency plans to cope with any disaster in which large numbers of people might be involved."²⁸ These emergency plans also include action to be taken in the event of the hospital itself being struck by a disaster. The major hospitals in the Cape have emergency water, food and power supplies. The emergency plans for the various hospitals are very detailed and are not dealt with in this dissertation.²⁹

5.6 The activation and co-ordination of civil defence medical action is undertaken jointly by the various hospitals and the Emergency Services Centre.

5.7 For operational purposes the Department has adopted the following uniform classification which can serve as a "local" or "regional":

- | | |
|------------------|---|
| Situation Yellow | - Professional emergency services only |
| Situation Orange | - Limited voluntary assistance from established organisations |
| Situation Red | - Civil Defence situation ³⁰ |

5.8 The Department has identified and assigned designations and roles to various hospitals and institutions which come into operation when institutions normally treating casualties are no longer capable of managing. The classification with details is as follows:³¹

5.8.1 GENERAL HOSPITALS staffed by resident full and part time staff and non-practicing nursing personnel. These hospitals will receive and treat all types of casualties. The MAJOR HOSPITALS in this category will be capable of additional specialised treatment. Small and large provincial or provincial-aided general hospitals form this category.

5.8.2 CASUALTY CLEARING HOSPITALS staffed by resident full time medical personnel, specialists in private practice assigned to

these hospitals during an emergency and non-practicing nursing personnel sent from "mother hospitals" (provincial hospitals) to "daughter hospitals" (private and other). These hospitals will have x-ray, theatre, anaesthetic and overnight facilities. Certain provincial, state, private and day hospitals form this category.

5.8.3 EVACUATION HOSPITALS staffed by resident medical personnel. These hospitals are intended to receive patients already hospitalised at the time of the disaster from general and casualty clearing hospitals. Specialist hospitals such as those for the mentally ill, infectious diseases and other form this category.

5.8.4 MEDICAL AID POSTS (MAPS) staffed by full time staff of the institution, a medical practitioner assigned if not part of staff, members of first aid societies and volunteers. Action will be limited to triage, resuscitation and normal emergency treatment for 40 patients. Pharmacies, clinics and certain day hospitals form this category. The minimum equipment to be carried by Medical Aid Posts is specified.

5.8.5 MOBILE MEDICAL AID POSTS (MMAPS) staffed and equipped similarly to MAPS serve to back up MAPS. These posts are usually situated at centres (fire stations) which have radio links and serve as Zone Medical Headquarters (see 7.6.11).

5.8.6 FIRST AID POSTS (FAPS) are staffed by first aid society staff and treatment is limited to first aid for 20 patients. The positioning of FAPS is similar to that of MAPS and the minimum equipment required is also specified.

5.8.7 MOBILE REGIONAL RESERVES consisting of various specialists and general practitioners are divided into the following regional reserves reporting to certain provincial hospitals as follows:

Southern Regional Reserve	-	Red Cross Hospital
Northern Regional Reserve	-	Conradie Hospital
Western Regional Reserve	-	Somerset Hospital

5.9 The Department assists local authorities by providing guidelines for the establishment of civil defence medical services. The guide "Medical Organisation for Major Incidents and Civil Defence" issued to all local authorities contains detailed information on planning, developing and activating the medical aspect of civil defence.

6. EMERGENCY SERVICES CENTRE (WP)

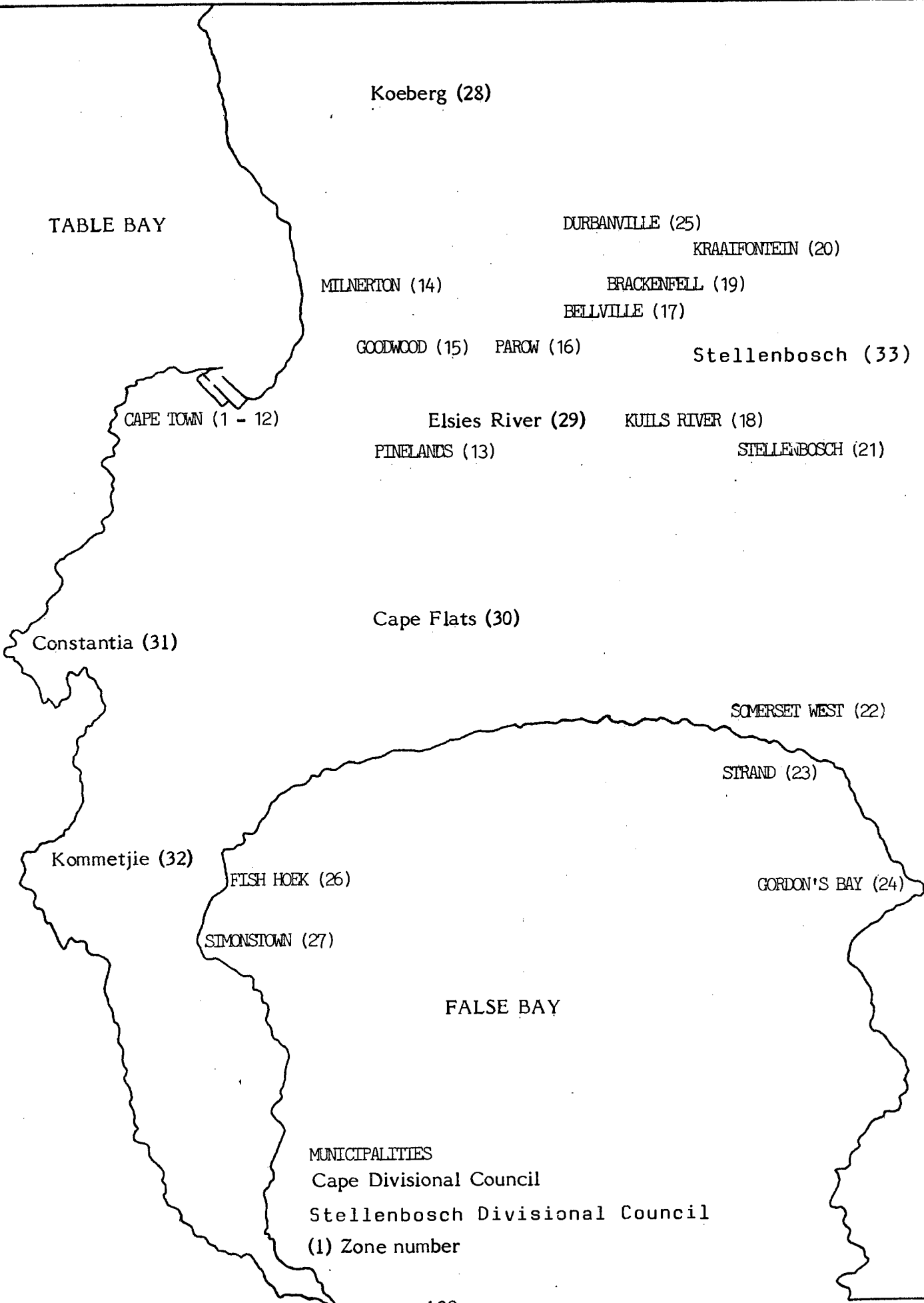
6.1 The Emergency Services Centre (or Metro Control) which is manned 24 hours a day by trained CPLAAS staff was established in 1976 by the Provincial Administration to serve as "a central co-ordinating and communications unit for all emergency services in the Western Cape area".³² The Consultant-in-charge of the Centre also serves as the Medical Director of the Ambulance Training Centre. A small staff is responsible for the Centre's administration.

6.2 In an effort to rationalise the use of expensive rescue equipment during an emergency the Metropolitan Rescue Organisation (Metro) was established. A Co-ordinating Committee chaired by the Consultant-in-Charge of the Centre and consisting of among other the Port Captain, the Chief Provincial Traffic Officer, Cape Town's Fire and Civil Defence Chiefs, the Chief of the CPLAAS, the local Chiefs of the SAP and the SAR Police and the Airport Manager (D.F. Malan) is responsible for the overall planning. Metro serves the local authorities within the Metropolitan area, namely the Municipalities of Cape Town, Simons Town, Fish Hoek, Pinelands, Milnerton, Goodwood, Parow, Bellville, Brackenfell, Kuils River, Kraaifontein, Somerset West, Strand, Gordons Bay, Durbanville, Stellenbosch and the Divisional Councils of the Cape and Stellenbosch (see Map 1).³³

6.3 At Metro Control sophisticated radio equipment enables the Centre to communicate with among many other the SAP; the SADF; the CPLAAS and other ambulance services; the Port Captain; the National Sea Rescue Institute (NSRI); the Fire, Traffic and Civil Defence services of the participating local authorities; the various

MAP 1

MEDICAL ZONES OF METROPOLITAN AREA



hospitals; D.F. Malan and Ysterplaat Airports; the South African Broadcasting Corporation (SABC); the SARP; the City Tramways; Court Helicopters; and many medical and other personnel through a radio paging system. Furthermore, the service is of such a nature that it can be used to link various organisations in such a way that they have direct radio communication with each other. The equipment has its own emergency power generation and the system is used daily for normal emergencies. Every day 100 tests are conducted to check on the serviceability of the system.³³

- 6.4 The Centre keeps extensive records of equipment, manpower and services available both within and outside of the Metropolitan area. Among many other, records are kept of fire fighting and rescue equipment; rescue services; hospitals; MAPS and FAPS; medical and para-medical personnel (all categories); First aid organisations; traffic forces; railway stations; airports; and key installations.
- 6.5 All the CPLAAS ambulances and many other ambulances belonging to many local authorities are uniformly numbered and records of these ambulances are kept, their movements monitored and co-ordinated.³³
- 6.6 Detailed maps of the Greater Western Cape are used by the Centre to identify services; to plan entry and evacuation routes for emergency vehicles; and to monitor, control and co-ordinate operations. Maps are so detailed that every farm in the area is identified with records of the topography, name of the owner and telephone number.³³
- 6.7 The Centre operates a Mobile Medical Accident Unit manned by doctors to render pre-hospital care to victims at the accident scene.³⁴
- 6.8 The Centre is responsible for the mobilization of the Metropolitan Rescue Organisation's services which occurs daily. The SAP, fire departments and ambulance services regularly report their activities to Metro Control who in turn mobilises the required services. Should a fire department for instance report its

attendance at a fire, Metro Control automatically satellites ambulances and rescue vehicles in the proximity, dependent on the extent of the fire. The Centre operates continuously to meet the needs of normal emergency situations.

- 6.9 Apart from these daily normal emergency activities the Centre is continuously engaged in in-depth planning for the provision of disaster services (see 7.5.3.2).
- 6.10 A well appointed mobile communications command and control centre, which duplicates the Centre's radio and record facilities, enables emergency personnel to co-ordinate services from the disaster site. A similar unit is being prepared to provide emergency personnel with refreshments on site.³⁵
- 6.11 For major incidents or civil defence purposes the Centre has divided the Metropolitan area into 34 operational medical zones (see Map 1) after certain considerations were taken into account. Cape Town is for instance divided into Zones 1 to 12 and the Divisional Council of the Cape into Zones 28 to 32. Each zone has a MMAP (zone headquarters - see 7.5.8.5) which is linked by Citizen Band Radios to the zone MAPS and itself linked to the local authorities' civil defence or other radio network. The Centre has established MAPS and FAPS, which are operational only during a disaster, in all the zones and keeps records of same updated and furnishes all the particular local authorities with the details. MMAPS, MAPS and FAPS are all identified on standard maps used by the Centre, the CPLAAS and the local authorities and are coded. For instance, a MMAP in Zone 1 would be coded as MMAP 1M. The first MAP in Zone 1 would be coded as MAP 11. The second MAP in Zone 2 would be coded as MAP 22. The first FAP in Zone 1 would be coded FAP 11, etc. This system enables emergency vehicles to reach the post promptly through pre-determined routes. The Centre is usually responsible for the activation of this service.³⁶
- 6.12 The Centre has pre-determined what action should be taken in the

event of various disasters. One such plan is the Major Aircraft Disaster Plan which makes provision for the identification of the area; rendezvous points; routes to be followed by emergency vehicles; command and control; parking and control of vehicles; identification of personnel (Identity documents are issued to emergency service personnel); procedures for treatment and labeling of patients (green - minor injury, red - major injury, blue - dead); allocation of patients to various hospitals; and communications et. al. The Centre is capable of mobilising a considerable force of ambulances, fire tenders, rescue equipment and medical personnel within minutes and have entry and evacuation routes sealed in as much time.³³

- 6.13 The Centre initiates regular disaster-type exercises and has devised a uniform method of identifying disaster site personnel as follows:³

Airport personnel	orange helmets
Fire personnel	orange helmets
Medical doctors	white helmets
Metro Control	green helmets
Ambulance personnel	white helmets
Ambulance Control	red helmets
First Aid organisations	white helmets
Police/Railway Police	grey helmets
Traffic Police	blue helmets
SADF	uniform
SAAF Fire Chief	white helmets
SAAF fire personnel	black helmets
Civil defence personnel	yellow helmets

Various insignia on the helmets serve to further identify the persons in charge and the particular form of service.

7. CAPE PENINSULA LOCAL AUTHORITIES AMBULANCE SERVICE (CPLAAS)

- 7.1 In terms of section 50 bis of the Hospitals Ordinance, 1946

(Ordinance no. 18 of 1946) provision is made for the establishment of a joint ambulance service.

- 7.2 The Cape Peninsula Local Authorities Ambulance Service, based at Ndabeni, is the largest combined ambulance service in the country and serves 12 local authorities and the Cape Divisional Council areas or, in other words, the whole Cape Peninsula (see Map 1).³⁸ In certain instances the service is extended to serve the whole Western Cape. Whilst the service is financed by the Provincial Administration who also controls the service, the administration of the service is the responsibility of the City Council of Cape Town (the largest of the participating local authorities).
- 7.3 Within the ambulance service there is an elite Rescue Squad. The personnel are trained as Ambulance Medical Assistants who have undergone three months of rescue training which includes mountaineering, diving, helicopter rescue and advanced driving among other.³⁹
- 7.4 The staff totals 257 and the fleet of vehicles includes 86 ambulances, 2 16-seater buses, 2 emergency equipment vehicles, 1 light rescue vehicle, 1 large 4WD ambulance rescue vehicle, 1 medium 4WD ambulance rescue/recovery vehicle, 1 4WD ambulance, 1 extra heavy duty rescue vehicle with cranes and 1 light 4WD rescue vehicle.⁴⁰ To meet the increased carrying capacity during a disaster the "Metropolitan" ambulance used by CPLAAS can easily be converted to carry 9 patients at a time. The CPLAAS ambulances are built according to the Emergency Services Centre specifications and all the vehicles are fully equipped to meet a variety of emergency situations for which they were designed.
- 7.5 The 24-hour service is divided into 3 shifts and as all vehicles are equipped with two-way radios some are stationed at 18 satellite stations (usually close to other services such as police or fire) throughout the Peninsula ensuring rapid response.⁴¹
- 7.6 In June 1978 the Cape Provincial Administration Ambulance Personnel Training Centre, conducted under the auspices of the Emergency Services Centre, and under control of the Consultant-in-Charge and attached to the CPLAAS, was

established to train all professional ambulance staff in the Cape Province in emergency care and transport of sick and injured persons as well as rescue techniques.⁴²

All ambulance personnel are required to successfully undergo the two week training program whilst the more advanced optional ambulance medical assistant course lasts for two months of which 50 per cent is practical training. The rescue training course lasts for three months.⁴³

7.7 Voluntary aid organisations such as the Red Cross, St John and Noodhulpliga enjoy a working relationship with the Service and make their staff available for duty at the ambulance station to acquire experience and assist the CPLAAS.⁴⁴

7.8 The CPLAAS in conjunction with the Emergency Services Centre, the National Heart Effort and Lions International have recently launched a community project to teach members of the public resuscitation techniques (Heart 5-1).

8. COMMENTS

8.1 The Cape Province's long coastline, its neighbouring states, the vast area it covers and the comparatively low population density increase the complexity of effective civil defence planning. The vast distances impede communication such as transport; the probability of disasters is increased in the light of aggression on the borders and coastline; and effective equipping and staffing of rural organisations are difficult because of the sparse population and dispersion of rural communities (see 7.1.2).

8.2 While the introduction of civil defence related activities in various educational institutions is commendable, it is disconcerting to note that no particular person is responsible for the overall control and implementation of these activities and that the implementation thereof is not strictly enforced (see 7.3.2 and 7.3.12). A survey conducted by the National Commission on the Prevention of Fire in the United States of America to determine public knowledge on fire safety revealed inter alia that 50 per cent of youngsters

would do something dangerous were a frying pan to ignite; 95 per cent of children under 7 years were not aware that rolling could extinguish ignited clothing; 38 per cent of adults would react dangerously if clothing ignited; and that many people had an exaggerated idea of the height that they could safely negotiate in the event of a multi-storey building fire evacuation.⁴⁵ It could be argued that a similar survey conducted in the Cape schools might obtain similar results and would emphasise the need for a more concerted effort to introduce and enforce such important activities such as first aid and fire fighting. Considering the importance of education and its large budget (see 7.3.1) it can be argued that the time and resources allocated to civil defence related activities, compared to other educational activities, is largely disproportionate in terms of the lifelong benefits which can accrue from sound training in first aid and fire fighting.

- 8.3 The recent consolidation of a large number of divisional councils has increased the viability of the now larger albeit fewer divisional council civil defence organisations. Communications, planning and functional execution of civil defence has improved as a result (see 7.4.4 to 7.4.6).
- 8.4 In view of the severe shortcomings of fire services, identified by the Inter-departmental Committee of Enquiry into Fire Services in the RSA and SWA and the Committee's recommendations which were later written into new fire service legislation, it is alarming to note that to date these important provisions have not been implemented because of insufficient funds (see 7.4.10).⁴⁶
- 8.5 To date the City of Port Elizabeth is the only municipality in the Province to have been awarded an A grading in terms of the new system of grading (see 7.4.13).²⁵
- 8.6 The Provincial Administration sponsored and organised the International Conference on Disaster Medicine held in Cape Town during August 1979. At this conference it was evident that the standards attained by the Province's emergency medical services are comparable to the best in the world. The Peninsula hospitals are famous throughout the world for their standard of medicine

practiced. Emergency services are well planned and co-ordinated. The classification of hospitals for emergencies ensures the maximum utilisation of available resources. The use of pharmacies as MAPS and FAPS is practical in that these are plentiful, accessible, carry medical supplies and are usually sited near densely populated areas (see 7.5.8).

- 8.7 The control centre in Cape Town and the Emergency Services Centre in Bellville are sophisticated, both having radio communications and stored data (see 7.4.7, 7.6.3 and 7.6.4). The task of updating the data banks is an onerous one. However, this task can be considerably eased and the service improved with the aid of a computer which can store much more data and present it in a variety of permutations. The two centres are largely duplicating tasks, and a combined emergency services centre will be a more rational deployment of resources.
- 8.8 Whilst the Emergency Services Centre serves to mobilise the rescue services of the Metropolitan Rescue Organisation it should be noted that "for such an emergency control centre to operate effectively it is essential that it should have a constant input of information from the region as a whole".⁴⁷ At present there is no means of enforcing a constant input of information from participating bodies. Similarly the Centre cannot enforce operational emergency service participation. Local authorities are hesitant to deploy their forces in areas other than their own because of problems relating to indemnity, charges and other.
- 8.9 The Emergency Services Centre has engineered the rapid development of a sophisticated emergency service for the Peninsula. It has improved the standardisation of the various emergency services and improved co-ordination of organisations not area bound such as first aid organisations who now liaise with one body instead of 18 different local authorities. The facilities at its command make it the single biggest emergency service in the Peninsula. Its main advantage is that it is in operation every day - the only variable being the extent of the service rendered. Rapid deployment of forces in the case of such an organisation is always at optimal level because of its operational readiness whereas civil defence control centres are only operational during disasters.

- 8.10 Greater standardisation of certain facilities is however required. The Centre has, for instance, divided the City of Cape Town into twelve medical zones whereas the City's civil defence operation is based on six zones. This leads to unnecessary complications of civil defence planning (already a complicated issue).
- 8.11 The close liaison between the Emergency Services Centre and the CPLAAS has undoubtedly led to an improved service. The standards of training and equipment have improved and the operational efficiency has been enhanced as a result of improved rationalisation of services and co-ordination (see 7.6.5 to 7.6.8).
- 8.12 The "Heart 5-1" project is a tremendous way in which to "go public" - where civil defence correctly belongs. Tremendous benefits will accrue from this project daily and most certainly in the event of a disaster.
- 8.13 It is evident that the Provincial Administration through its various departments has considerably enhanced the state of civil defence preparedness in the Peninsula, and has made every effort to help local authorities.

9. NOTES

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CITY COUNCIL OF CAPE TOWN

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1. INTRODUCTION

- 1.1 In 1652 the Dutch East India Company established a settlement at the Cape and thus laid the foundation of what was later to become known as the City of Cape Town. Act of Parliament No. 1 of 1861 which created a municipal board of 12 commissioners and 24 wardmasters for the City marked a great advance in local government and conferred increased privileges, powers and responsibilities upon the City rulers.¹ Between 1913 and 1927 the neighbouring municipalities and area of Woodstock, Maitland, Mowbray, Rondebosch, Claremont, Green Point, Sea Point, Camps Bay, Kalk Bay, Muizenberg and Wynberg were united with the Mother City of South Africa, Cape Town.²
- 1.2 Cape Town is the Republic's Legislative Capital and one of the country's busiest ports. Positioned at the tip of the continent it is close to one of the major sea routes of the world.
- 1.3 The estimated population of Cape Town in 1979 was 265 040 Whites; 532 980 Coloureds; 11 980 Asians; and 108 500 Blacks; or a total of 918 500.³
- 1.4 As a logical extension of the normal functions of a local authority the primary responsibility for civil defence in the South African context rests with this third level of government. The City of Cape Town provides a variety of services which could be co-ordinated in the event of a disaster, to provide a major relief service. To augment, plan, co-ordinate and control such a service the City established a civil defence organisation in accordance with prevailing statutory requirements.
- 1.5 The City is in the process of developing a civil defence plan to detail action to be taken in the event of disaster relief operations. It is engaged in civil defence activities on an on-going basis and has established a command and control centre to facilitate the emergency services it provides.
- 1.6 The City has not submitted its civil defence organisation for grading purposes (see 7.4.13) as the organisation is still in the process of being developed (as at end 1980).

2. STRUCTURE AND AREA OF JURISDICTION

- 2.1 The statutory provisions governing the establishment and maintenance of a municipality are contained in the Municipal Ordinance, 1974 (Ordinance no. 20 of 1974). The council, mayor, deputy mayor and committees are elected and appointed in terms of sections 31 to 50 of the Ordinance. The City Council consists of 34 members and it has appointed four standing committees namely, Amenities and Health; Housing; Utilities and Works; and Town Planning.⁴
- 2.2 In terms of section 60(2) of the Ordinance the town clerk is the chief executive and administrative officer of the municipality. The structure of the City of Cape Town is reflected in Fig 9. The heads of the various departments into which the City is divided are responsible to the City Council through the Town Clerk. Civil defence forms part of the Town Clerk's Department.
- 2.3 The City of Cape Town covers an area of 30 210 hectare and has a combined value (rateable and non-rateable) of R3 355 877 815.⁵ In the area there are "over 2 300 km of streets and 1 100 km of footways; more than 2 750 km of watermains; 910 km of drains and 1 595 km of sewers".⁶
- 2.4 The City's area of jurisdiction stretches from the Atlantic to the False Bay coasts and includes densely populated areas as well as mountains and forest areas. The area is divided into 17 municipal wards which are identified together with the municipal boundaries on Map 2.⁷

3. SERVICES

- 3.1 The Council maintains 29 beaches, 13 tidal pools and 14 swimming baths throughout its area of jurisdiction.⁸
- 3.2 Annually the Council processes approximately 842 000 m³ of garbage with a budget of almost R9,5 million.⁹

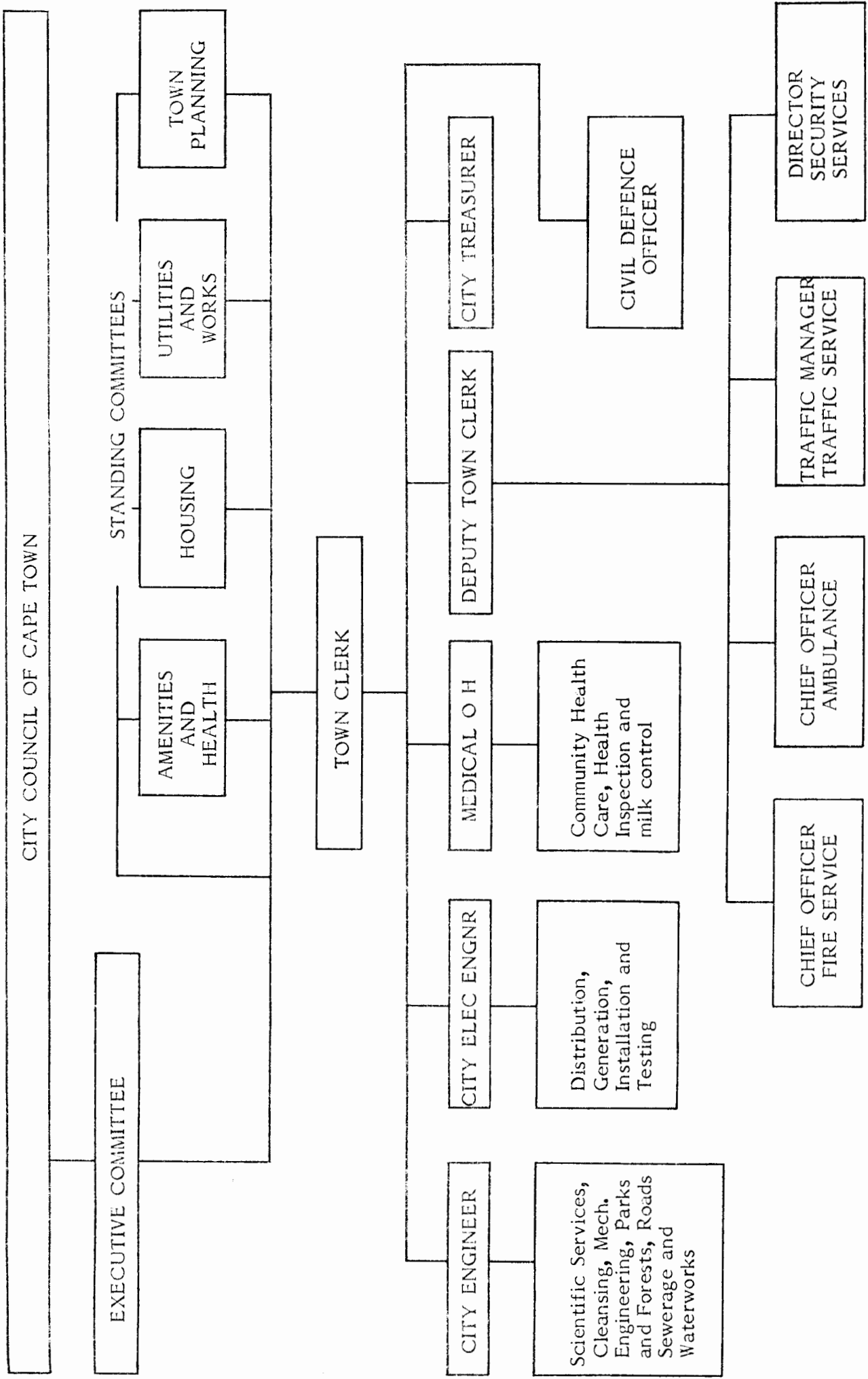
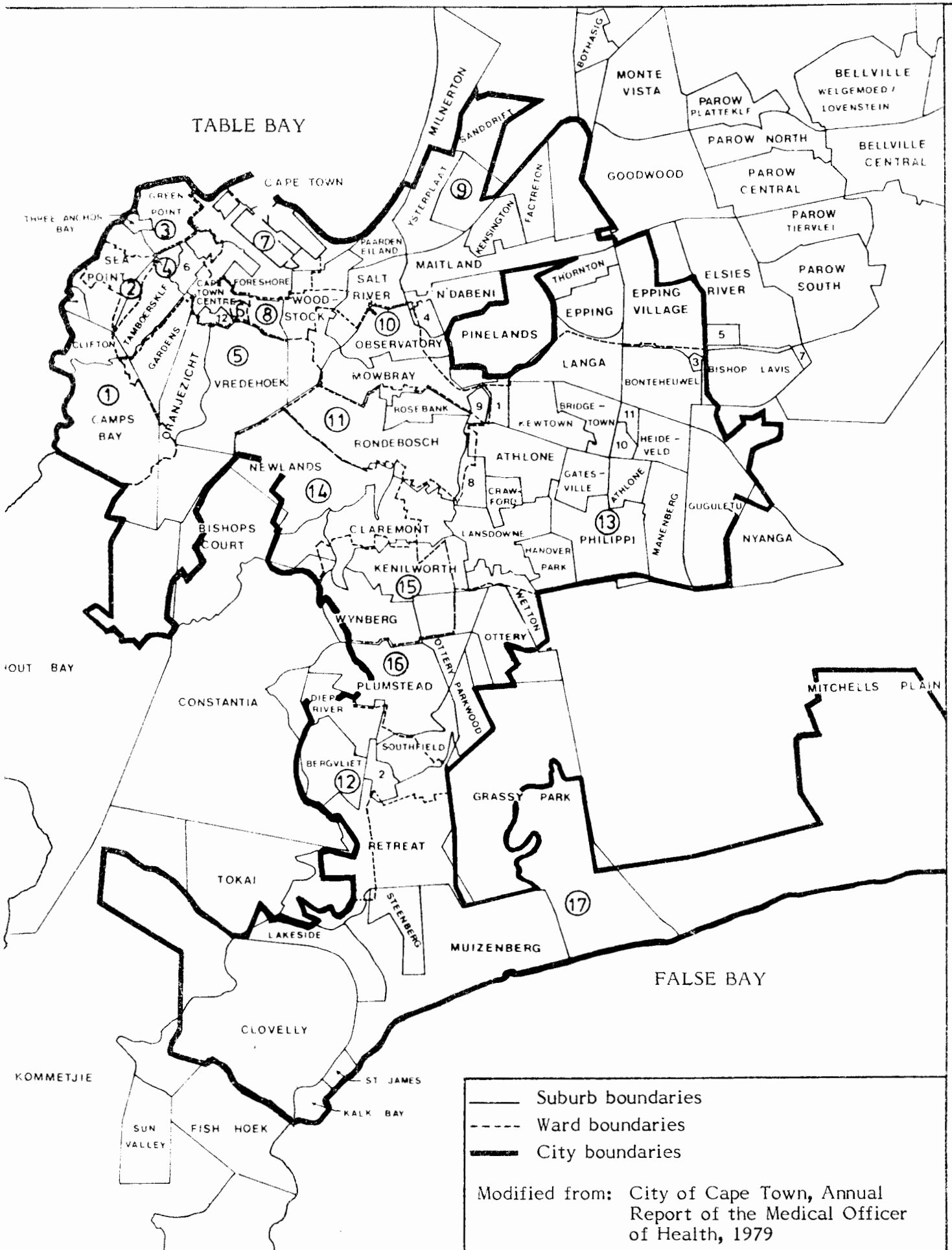


FIG 9

AREA OF JURISDICTION : CITY OF CAPE TOWN



- 3.3 The library service maintained by the Council includes 36 permanent libraries as well as 3 mobile units.¹⁰
- 3.4 Water supplied by the Council from the Wemmershoek, Steenbras and Voëlvlei Dams amount to a daily average of 362 megalitres.¹¹
- 3.5 The Council supplies 171 000 consumers with electricity by purchasing an aggregate of 1 772 million kWh per annum from ESCOM and by generating a further 649 million kWh per annum at its Table Bay and Athlone Power Stations which have a total installed capacity of 420 MW. The Council's hydro-electric scheme at Steenbras has a rated output of 180 MW.¹²
- 3.6 In addition to the City Hall and the Good Hope Centre the Council maintains 22 suburban and other halls at an approximate annual cost of R3,8 million.¹³
- 3.7 Traffic services which cost nearly R3,5 million per annum are designed to meet the City's large traffic flow. During a recent traffic count 195 077 vehicles entered and left the City in a 12-hour period.¹⁴
- 3.8 During 1979 the Fire Department attended to 714 actual fires and 1 279 rubbish, grass and bush fires; inspected all registered stores for flammable liquids; supervised all underground tank installations; and responded to 226 special service calls at a combined cost of R2 499 186. The special service calls included, among other, removing people trapped in vehicles, lifts and buildings; washing away spilt petrol products; pumping out flooded basements and attending to aircraft in emergency.¹⁵
- 3.9 Whilst the Provincial Administration subsidises the CPLA Ambulance Service, the Council is responsible for its maintenance and administration.
- 3.10 At the end of 1979 the staff employed in the Council's City Hospital for Infectious Diseases, Community Health Care, Community Development, Environmental Health and Administration totalled 975.¹⁶ The Council operates 45 clinics (includes 14 comprehensive community health centres), 2 mass x-ray centres

and 9 crèches and nursery schools. Clinic attendances are approximately 93 000 per month while visits by nursing staff and health inspectors total approximately 38 000.¹⁷

4. CIVIL DEFENCE ORGANISATIONAL, COMMAND AND CONTROL STRUCTURE

4.1 Civil defence activities conducted at local authority level are governed chiefly by the Civil Defence Ordinance, 1977 (Ordinance no. 8 of 1977) and the Regulations promulgated thereunder (see 4.4.4 and 4.4.5).

4.2 The Town Clerk of Cape Town has been appointed as the Chief of Civil Defence in terms of section 3(2) of the Ordinance (see 4.4.7).

4.3 In terms of regulation 2 of the Regulations under the Civil Defence Ordinance, 1977 the City of Cape Town Civil Defence Corps was established.

4.4 The Corps Headquarters or Command Centre is situated in the Civil Centre, 12 Hertzog Boulevard, Cape Town.

4.5 The Command Centre consists of a 24-hour radio and telephone monitoring service and a well equipped command room. The sophisticated monitoring service serves to monitor all the City's daily activities including emergency services and is designed to meet civil defence operational needs. The service is of such a nature that any of the City's existent radio links (Fire; Traffic; Ambulance; Health; Security; Electricity; Roads; Waterworks; Cleansing; and Parks and Forests) and other established radio links (SADF; Metro Control; and other Metropolitan municipalities) can be directed in such a manner as to enable operation from the command room during civil defence operational activity. The Centre is equipped with Hamnet radio facilities. The command room is equipped with among other, detailed maps of the area of jurisdiction; data (see 8.5.2); operational charts and maps; and conference facilities. The Centre is equipped with an emergency power supply.¹⁸

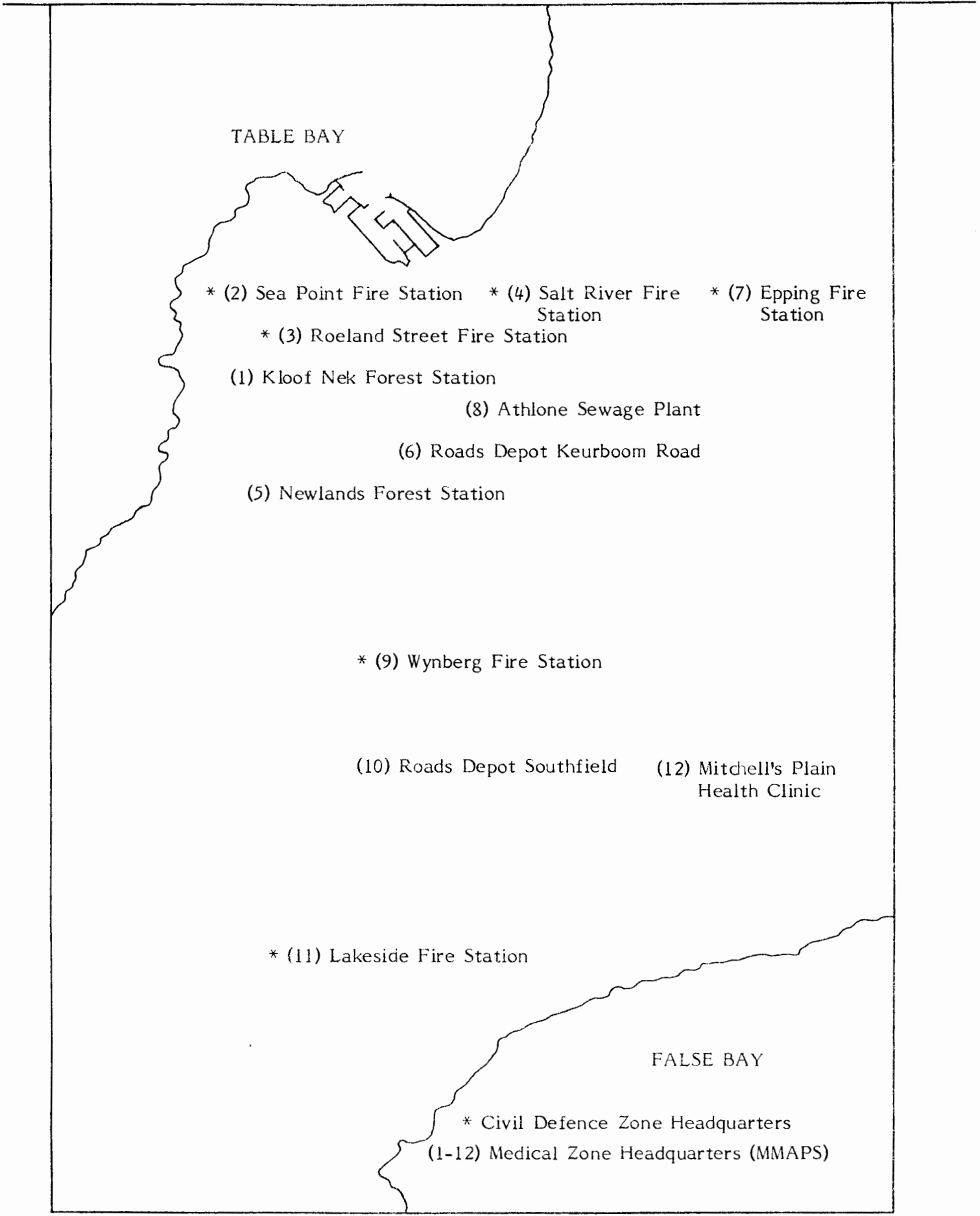
- 4.6 The Command Centre is partly duplicated in terms of equipment and facilities at the Roeland Street Fire Station. A Mobile Control Vehicle (MCV) designed by the City for on-site co-ordination and control also has the facilities and equipment (albeit less sophisticated) to serve as a command centre should the other centres become inoperable.¹⁸
- 4.7 The Command Centre will be manned by civil defence personnel and other Council employees depending on the nature and extent of the disaster and the relief measures being called for. The Centre only becomes fully operational in the event of a declared disaster (see 4.4.1).¹⁸
- 4.8 Apart from the Chief of Civil Defence the City's civil defence organisation is staffed by the following salaried personnel (year of appointment in brackets): Civil Defence Officer (1977); Assistant Civil Defence Officer (1980); six Field Officers (1980); Typist (1979); and Administrative Assistant (1976). In addition to the Council personnel twelve members of the public have been appointed as Corps members (see 4.5.1). In addition Council employers may serve as deemed members (see 4.5.1).¹⁸
- 4.9 The City's area of jurisdiction has for civil defence purposes been divided into six zones, identical to the Municipal Fire Brigade's six areas of operation. The fire stations serving the six areas are used as zone headquarters and are situated as follows:¹⁹

"A" Station	Headquarters and Northern Divisional Station, Roeland Street, Cape Town
"B" Station	Sea Point Sub Station
"C" Station	Salt River Sub Station
"F" Station	Epping Sub Station
"D" Station	Wynberg South Divisional Fire Station, Rosmead Avenue, Wynberg
"E" Station	Lakeside Sub Station

The zone headquarters are identified on Map 3.

- 4.10 The zone headquarters are linked to the Command Centre by telephone, VHF and HF radio links; and have the facilities, records and equipment to serve as command centres for disasters occurring

CIVIL DEFENCE AND MEDICAL ZONE HEADQUARTERS :
CITY OF CAPE TOWN



in their zones should this be required. All records and information contained in the zone headquarters is duplicated at the Command Centre (see 8.5.2).¹⁸

4.11 Each zone is administered by a Field Officer (Council employee) and it is proposed that the work of the zone will be undertaken by the Zone Leader. This Leader, the Field Officer and three Wardens supported by an administrative section will form the Leader Group. This Group will be responsible for the recruitment and training of Corps members in the various sections.²⁰

4.12 The Civil Defence Corps is divided into the following sections (4.4.2):²¹

Administration Section;
 Care and Comfort Section;
 Communications Section;
 Fire and Rescue Section;
 First Aid Section;
 Traffic Control Section;
 Transport Section; and
 Maintenance Section (see Addendum 1).

4.13 It is proposed that each zone will consist of a number of teams from each section mentioned above as follows: Administration - 1 team; Care and Comfort - 5 teams; Communications - 6 teams; Fire and Rescue - 3 teams; First Aid - approximately 20 teams; Traffic Control - 4 teams; Transport - 6 teams; and Maintenance - 4 teams.²² The various teams are responsible to the various Section and Deputy Section Leaders who, in turn are responsible to the Leader Group. The Leader Group is responsible to either the Chief of Civil Defence or the Civil Defence Officer or others at the Command Centre.¹⁸ The structure and organisation of a zone and the tasks of the various sections are contained in Fig 10.

4.14 In addition to the six civil defence zones the City's area of jurisdiction has for emergency medical treatment been divided into twelve medical zones (see 7.6.11 and Map 3) as follows:²³

LEADER GROUP

1 Civil Defence Field Officer 4 Wardens (incl. Zone Leader) 1 Administration Section
--

SECTIONS

FIRE & RESCUE	TRAFFIC CONTROL	CARE & COMFORT	TRANSPORT	MAINTENANCE	COMMUNICATIONS	FIRST AID
Section Leader Deputy SL 3 Teams: Back-up to Fire Brigade	Section Leader Deputy SL 4 Teams: Back-up to Traffic branch for vehicle and public control	Section Leader Deputy SL 5 Teams: Food Preparation Stores Creche Social Welfare Internal Dispatchers	Section Leader Deputy SL 6 Teams: Emergency Evacuation Emergency Ambulance Dispatch Supplier/Stores Emergency Fire Rough Terrain	Section Leader Deputy SL 4 Teams: Electrical Mechanical Carpentry Plumbing Technical Services	Section Leader Deputy SL 6 Teams: Nett Control Outstation Ops. Dispatch Disaster Scene Evac/Housing/ Feeding Reserves	Section Leader Deputy SL ± 20 Teams: First Aiders supplied by First Aid Organisation to man MAP and FAP's

Modified from : City of Cape Town, Organogram of the Zone Organisation

FIG 10

<u>No</u>	<u>Headquarters</u>	<u>Area Served</u>
1	Kloofnek Forest Station	Camps Bay, Clifton, Tamboerskloof
2	Sea Point Fire Station	Sea Point, Green Point, Mouille Point
3	Roeland Street Fire Station	Central City, Foreshore, Gardens, Vredehoek, University Estate
4	Salt River Fire Station	Woodstock, Salt River, Observatory, Maitland, Brooklyn, Rugby, Mowbray
5	Newlands Forest Station	Mowbray, Rosebank, Rondebosch, Newlands, Claremont, Kenilworth, Wynberg
6	Roads Depot Keurboom Road	Rondebosch, Rosebank, Claremont
7	Epping Fire Station	Kensington, Thornton, Epping Ind., Bonteheuwel, Heideveld, Netreg, Langa
8	Athlone Sewage Plant	Athlone, Manenberg, Hanover Park, Guguletu, Lansdowne, Crawford
9	Wynberg Fire Station	Wynberg, Kenilworth, Lansdowne
10	Roads Depot, Southfield	Plumstead, Diep River, Heathfield, Bergvliet, Meadowridge
11	Lakeside Fire Station	Lakeside, Retreat, Muizenberg, Marina da Gama, Kalk Bay
12	[City Council Health Clinic Mitchell's Plain]	Mitchell's Plain

4.15 In the event of a "normal" disaster or major incident the City of Cape Town as a member of the Metropolitan Rescue Organisation, adopts the Organisation's disaster site control structure (see 7.6.2 and 7.6.12). At the head of field control will be either the SAP or if in the Railway's area of jurisdiction the SA Railway Police (SARP). The Fire Control Officer (Chief Fire Officer of Area); the Chief Ambulance Officer in conjunction with Metro Control; and the Traffic Control Officer (Chief Traffic Officer for area) form the next level of command. The above-mentioned authorities will be assisted by other authorities depending on the nature of the disaster. For example in the event of a civil aircraft disaster the Airport Manager will assist. The Civil Defence Officer for the area will be in attendance at the disaster control point to serve as liaison between the control point and the municipality in question. Should a civil defence emergency exist (Situation Red - see 7.5.7) and civil defence forces are mobilised the Civil Defence Officer in conjunction with

the Police (SAP or SARP) exercises joint control. If the disaster is widespread or multiple incidents occur simultaneously control will be held by the Command Centre.²⁴

5. CIVIL DEFENCE PLAN

5.1 The City of Cape Town civil defence plan is in the process of being developed and consequently the information contained in this section will be limited and refers to the proposed plan only. Each zone is required to develop its own emergency plan for its area of jurisdiction. The combination of the various zone plans will in effect constitute the City's civil defence plan.¹⁸

5.2 It is proposed that the plan will contain inter alia, extensive data on the following:²⁵

5.2.1 General

- .1 Names, designations, addresses and telephone numbers of senior civil defence personnel
- .2 Demographic data

5.2.2 Manpower and Equipment

- .1 Firefighting
 - .1 Council manpower and equipment
 - .2 Private sector manpower and equipment
 - .3 Other sources
 - .4 Capability of inhabitants to fight fires
- .2 Traffic and Crowd Control
 - .1 Council manpower and equipment
 - .2 Private sector manpower and equipment
 - .3 Other sources
- .3 Rescue and Evacuation
 - .1 Council manpower and equipment
 - .2 Private sector manpower and equipment
 - .3 Other sources

- .4 Medical Treatment
 - .1 Hospitals and nursing homes
 - .2 Arrangements for emergency hospitals
 - .3 Hospital evacuation plans
 - .4 MAPS and FAPS
 - .5 Other local authority assistance
 - .6 First aid capability of inhabitants
 - .7 Disposal of bodies

- .5 Emergency Housing, Feeding and Clothing
 - .1 Number of persons that can be housed
 - .2 Logistics
 - .3 Sources of supply

- .6 Continuation of Public Health Services

- .7 Maintenance and Protection of Essential Services
 - .1 Maintenance of power
 - .2 Maintenance of water supply
 - .3 Sewerage
 - .4 Protection of essential places

- .8 Transport, Communication and Warnings
 - .1 Transport
 - .1 Council resources
 - .2 Private resources
 - .3 Fuel supplies
 - .2 Communication
 - .1 Council resources
 - .2 Other resources
 - .3 Warnings
 - .1 System of warning
 - .2 Radio and press

- .9 Continuation of existing administration

5.2.3 Command and Control Structure

- .1 Headquarters
- .2 Staff
- .3 Communication
- .4 Equipment
- .5 Welfare
- .6 Mutual support
- .7 Information and media
- .8 Leisure time and spiritual care
- .9 Finance
- .10 Maps

5.3 In addition, a disaster site management and control plan detailing identification and access of personnel at disasters; control and communications; and the procedure for handling casualties and the dead, has been adopted (see 8.4.15).

5.4 Data is stored on a system of cards designed specifically for civil defence purposes (similar to Appendix 2).

6. CIVIL DEFENCE ACTIVITIES

6.1 During 1979 the City's civil defence expenditure totalled R70 912,24.²⁶ Apart from the administrative tasks involved in the maintenance of the civil defence organisation the City's civil defence staff are involved in a variety of related activity.

6.2 Civil defence planning is undertaken on an on-going basis and include structural and organisational planning. For example detailed instructions and guidelines for the establishment of the various zone sections (see 8.4.12) were prepared.

6.3 Field Officers are involved in the reconnaissance of their areas to acquire the data required for the zone and City civil defence plans as well as to update existing data.

6.4 Civil defence personnel are involved in the recruitment of Corps members. At present 12 members have been appointed and it is

envisaged that the ultimate total will not exceed approximately 100 members. No Zone Leaders, Wardens, Section and Deputy Section Leaders have yet been appointed.¹⁸

- 6.5 Whilst the training or the arrangement of training for Corps members is the duty of the civil defence personnel this activity has been very limited. However, the City conducted an intensive one-month orientation course, intended primarily for Council personnel.¹⁸
- 6.6 The civil defence personnel are actively engaged in addressing a wide variety of interested bodies. The aim is to inform the members of the public of civil defence; to recruit members; and to disseminate literature, particularly the "Citizen's Civil Defence Handbook" which contains the rudimentary elements of emergency preparation and first aid.
- 6.7 A wide variety of organisations are visited by civil defence personnel to advise on the development of the organisation's emergency plans. Such visits include among other, those to commerce, industry, hotels, schools and homes for the aged. The Municipal Fire Brigade is also involved in this activity (see 8.3.8).
- 6.8 The City's civil defence has produced a variety of booklets, brochures and information guides on a variety of civil defence related topics.
- 6.9 The civil defence organisation is represented on a variety of civil defence related bodies such as the Metropolitan Rescue Organisation and SATEPSA (see 7.6.2 and 5.4.10). The civil defence personnel liaise with other civil defence organisations and the other branches of the Council.
- 6.10 All equipment including the radio sets and medical equipment provided by the Council for the use in the City's MAPS and FAPS (see 7.5.8.4) are regularly maintained.
- 6.11 The City recently engaged in a simulated disaster exercise which entailed the landing of emergency personnel on the top of a high rise building; abseiling down to enter windows from outside the

building; and the evacuation of persons from the top of the building.²⁷ Only professional emergency services were involved in the exercise which was hailed in an editorial as an "Impressive display". Further it stated,

Yesterday's civil defence exercise in the city was most impressive . . . it is reassuring to know that there exists a group of highly trained and motivated servicemen ready to move into action should the need ever arise. Well done!²⁸

- 6.12 Presently the City is negotiating the formation of a combined civil defence structure for the 18 Metropolitan local authorities. Once established the Town Clerk of Cape Town will serve as the Regional Chief of Civil Defence and the City will be responsible for the development and maintenance of a data bank for the region. The Command Centre will serve to co-ordinate and command this regional service.²⁹

7. COMMENTS

- 7.1 The comments which follow raise certain pertinent issues. It must be noted that these comments are based on the interpretation of available information and material. In certain instances information was vague, limited, unavailable and non-verifiable. This can be attributed chiefly to the fact that the service is in the process of being developed.
- 7.2 It would appear from information contained in 3.3 that an organisation designed to cope with disasters in the City's area of jurisdiction is justified.
- 7.3 The area of jurisdiction is heterogeneous and widespread (see 8.2.3 and 8.2.4) and would hamper disaster operations. The City Centre is for instance served by only three main access routes because of the mountain position. The long coastline adds to the probability of disasters as do the mountain and forest areas.
- 7.4 The City's existing services (see 8.3) are of such a nature and enormity that in itself it can provide a considerable disaster relief

service. The City can meet the needs of a disaster with its professional emergency services (fire and ambulance); manpower and equipment (within 5 hours 600 men can be assembled and moved with equipment to the disaster scene³⁰); halls (accommodation); libraries (leisure needs); and clinics (medical care) among other. Alternatively, the enormity of the needs met by the services (water/electricity consumption, garbage disposal, traffic needs, fires attended and health needs) is an indication of the consequences that would follow a disaster which interrupted these services.

- 7.5 Taking the City's large population which is spread over a large area (see 8.1.3) into account the City has an awesome responsibility in terms of civil defence. In 1978 the City complained about the "incredible public apathy" and stated that the response to an extensive campaign to recruit members had been "disappointing".³¹ The City has adopted a policy of providing a civil defence service based on quality rather than quantity largely from its own resources (not without merit). This policy is in contrast to most other civil defence organisations. It appears as if the City does not actively pursue or promote the recruitment of Corps members (12 per population of 918 500). Even the proposed 100 members is low compared to the population and the numbers recruited by other civil defence organisations. It should be noted that no non-White persons are presently involved in civil defence in spite of the fact that they form the majority of the population and are the group most vulnerable to the effects of disasters because of the poor and overcrowded living conditions. The City is fortunate in having ten salaried staff members to organise civil defence but it is questionable whether the present civil defence manpower complement is capable of coping effectively with a major disaster. The City does, however, encourage the public to read "Citizen's Civil Defence Handbook" (see 8.6.6) and "look after yourselves at home". In principle the assumption that people could and should look after themselves is correct. However, the handbook is not comprehensive enough; practical training is absent (very important in terms of any crisis situation); and the lack of community participation fosters apathy. If these "stay at home" persons were able to practice what was contained in the handbook; receive additional training in first aid and fire fighting the

situation will be totally different. It should be noted, however, that during World War II Cape Town had over 8 500 persons engaged in the Civilian Protective Service (see 2.2.12).

7.6 Consistent with its policy of excluding large-scale public involvement in civil defence the City adopted the present six zone system in preference to the cell system currently in use in Pretoria and elsewhere. The major advantage of the latter system lies in its employment of various units ranging in size from the largest or "main cell" to the smallest or "block" (street or flat building) which foster community participation (if that is what is desired). This "block" could more effectively meet the City's "look after yourself" policy and foster neighbourhood care, awareness and involvement. It also serves to rationalise neighbourhood resources. The similar Chonaikai associations (a traditional type of neighbourhood association) in Japan served as important civil defence formations during World War II because of their intimacy, commitment and knowledge of their neighbourhood and its resources.³²

7.7 The Command Centre and equipment is well designed and of an excellent standard. The Centre is probably the best of its kind in the country and appears to meet all the standards for command centres laid down by SATEPSA.³³ Duplication of the Centre at Roeland Street Fire Station and the use of the MCV virtually ensure continued command and control even in the more devastating of disasters. The City's radio communications network is sophisticated and equipment at zone headquarters and MAPS and FAPS meet the required standards.

7.8 As Town Clerk (chief executive officer) the Chief of Civil Defence has the required authority to command the Council's manpower and equipment. However,

Co-ordination is not possible without some system of overall control and distribution of authority. There must be people who have responsibilities, who are in charge, and whose authority is legitimated.³⁴

The City's civil defence distribution of authority is not clear nor are persons and their responsibilities clearly identified. At the

Command Centre various people depending on the disaster will be in attendance, the authority and responsibility of which is not clearly defined (see 8.4.7). No clearly identified civil defence executive (the Chief, heads of departments and other service leaders as a co-ordinating committee) exists. Similarly at zone level the Leader Group's responsibility and authority is not explicit. No one person appears to be vested with executive powers (see Fig 10). Decentralised into six zones a clearly defined command structure could function effectively. It must however be noted that for civil defence purposes six zones have been established whilst for emergency medical care 12 zones have been established (see 8.4.9 and 8.4.14). This arrangement does not facilitate unification of command.

7.9 The City does not make use of planning committees as is the case in Pretoria. Civil defence is a community-directed service and should be community - sponsored. Greater use of community resources and leaders could greatly enhance the viability of the service. For example, one of Pretoria's planning committees, the Emergency Housing and Care Committee consists of persons in professional housing and welfare services.³⁵ As civil defence is the logical extension of the City's existent services, so the extension of existing community-based services could be profitably utilised in overall planning and execution. The objectives and functions of for instance the City's Care and Comfort Section are in many ways similar to those of the Department of Health, Welfare and Pensions (see 6.4 - 6.7 and Addendum 1). Further, the Crisis Clinic (and other services such as Life Line) can fulfil a vital function in the event of a disaster (in general the provision for emotional support services is disconcerting) and could very profitably be incorporated into the service (see 6.7.7).

7.10 The sections into which the service is divided (see 8.4.2) are similar to those of other civil defence organisations. However, the proposed number of teams per section per zone is questionable. It is difficult to conceive that a primary emergency service such as fire and rescue be allocated only three teams whilst communications are allocated six teams (see Fig 10).

- 7.11 Whilst it is difficult to comment on a proposed civil defence plan it could be noted that the proposed plan is similar in content to those of other civil defence organisations. The City does not include the provision of nuclear fall-out shelters in its civil defence plan.
- 7.12 Similar to the Provincial Administration, the City processes and stores an enormous amount of data by manual methods (see 7.8.7 and 8.5.2). The employment of a computerised data bank will considerably facilitate the planning and execution of the service.
- 7.13 The City is well placed to serve in a leadership capacity in terms of the proposed combined civil defence organisation (see 8.6.12). The well-drafted contract drawn up for this purpose has greatly increased the viability of the proposed service.
- 7.14 A call was made recently for a municipal police force which would incorporate all existing law enforcement personnel in an effort to combat crime in the City.³⁶ Given training in first aid, fire fighting and traffic control this force could, in addition to its law-enforcement role, serve as a formidable back-up to the City's emergency services. Further, the creation of a municipal department of emergency services accommodating the proposed police force; the fire and ambulance service; and the civil defence organisation would serve to consolidate and improve the City's emergency services and in so doing boost its civil defence capability.
- 7.15 The recent "civil defence" exercise was an "impressive display" (see 8.6.11). However, the exercise was certainly not a civil defence exercise, as the City and the local press reported, if the accepted definition of civil defence (see 1.3) were applied to the exercise. Only the existing emergency services (and only a few in number at that) participated in the exercise. The uniform disaster classification (see 7.5.7) used by the City and Provincial Administration indicates that this was a Situation Yellow - professional emergency services only. Attaching the civil defence label to "impressive displays" of this nature serve only to confuse a public who are struggling to identify the difference between

emergency services, armed intervention and civil defence; and to create a false sense of security.

- 7.16 Finally, on balance of evidence it would appear that the City's civil defence organisation has much potential but that in its present form it is only capable of limited operational duty.

8. NOTES

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9

DIVISIONAL COUNCIL OF THE CAPE

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1. INTRODUCTION

- 1.1 The Divisional Council of the Cape, established in terms of the Divisional Councils and Road Ordinance passed in 1917 replaced the former Rural Council of the Cape Division whose first meeting was held in 1855.¹
- 1.2 The Council is the largest divisional council in the Cape Province and the second largest Coloured housing authority in the country. The Council's area of jurisdiction includes an expanse of coastline, urban areas and a large rural area.
- 1.3 The estimated population within the Council's area of jurisdiction in 1980 was 30 800 Whites; 237 860 Coloureds and Asiatics and 53 050 Blacks, or a total population of 321 710.²
- 1.4 As in the case of the City Council of Cape Town, the primary responsibility for the implementation of civil defence rests with the Divisional Council of the Cape. The Council provides a number of services which could be co-ordinated and augmented to provide relief in the event of a disaster. To this end, the Council's civil defence organisation was established in accordance with prevailing legislation.
- 1.5 The Council is currently in the process of developing a civil defence plan and is engaged in civil defence activities on an on-going basis. In addition, the Council has established a command and control centre to facilitate disaster relief.
- 1.6 The Council's area of jurisdiction is much larger than that of the City and includes the Koeberg Nuclear Power Station. While its civil defence organisational structure and activities are basically similar to that of the City, certain policy differences exist.
- 1.7 The Divisional Council of the Cape has not submitted its civil defence organisation for grading purposes (see 7.4.13) as the Council's civil defence organisation is still in the process of being developed (as at end 1980).

2. STRUCTURE AND AREA OF JURISDICTION

- 2.1 The statutory provisions governing the establishment and maintenance of a divisional council are contained in the Divisional Council Ordinance, 1976 (Ordinance no. 18 of 1976). The council, chairman, deputy chairman and committees are elected and appointed in terms of sections 31 to 50 of the Ordinance. The Council consists of 15 members and it has appointed seven committees namely, Works; Finance; Health, licencing, cemeteries and cremetoria; Housing; Staff; Amenities; and Atlantis. The last Committee is not responsible to the Council, as in the case of the other committees.³
- 2.2 In terms of section 60(2) of the Ordinance, the secretary is the chief executive and administrative officer of the division. The structure of the Divisional Council of the Cape is reflected in Fig 11. The heads of the various departments are responsible to the Council through the Secretary and Committees. Civil defence forms part of the Secretary's Department.
- 2.3 The Divisional Council's large area of jurisdiction covers an area of 173 530 hectare.⁴ This area is composed of 24 local areas; a rural area; and the Municipalities of Bellville, Cape Town, Durbanville, Fish Hoek, Goodwood, Milnerton, Parow, Pinelands and Simonstown.⁵ The local areas are Kommetjie, Scarborough, Sun Valley, Ocean View, Constantia, Hout Bay, Hout Bay Harbour, Grassy Park, Zeekoevlei, Wetton, Ottery East, Mandalay, Belhar, Matroosfontein, Nooitgedacht, Philippi, Elsie's River, Melkbosstrand, Bloubergstrand, Philadelphia, Atlantis Industrial, Atlantis Residential, Bouqinar, and Epping Garden Village.³ The estimated total rateable valuation for 1980 equals R3 941 356 526.⁶
- 2.4 The area of jurisdiction which is identified on Map 4 stretches from Atlantis in the North to Cape Point in the South and is divided into 15 wards, of which eight represent the City of Cape Town and seven the other municipalities and areas.⁷

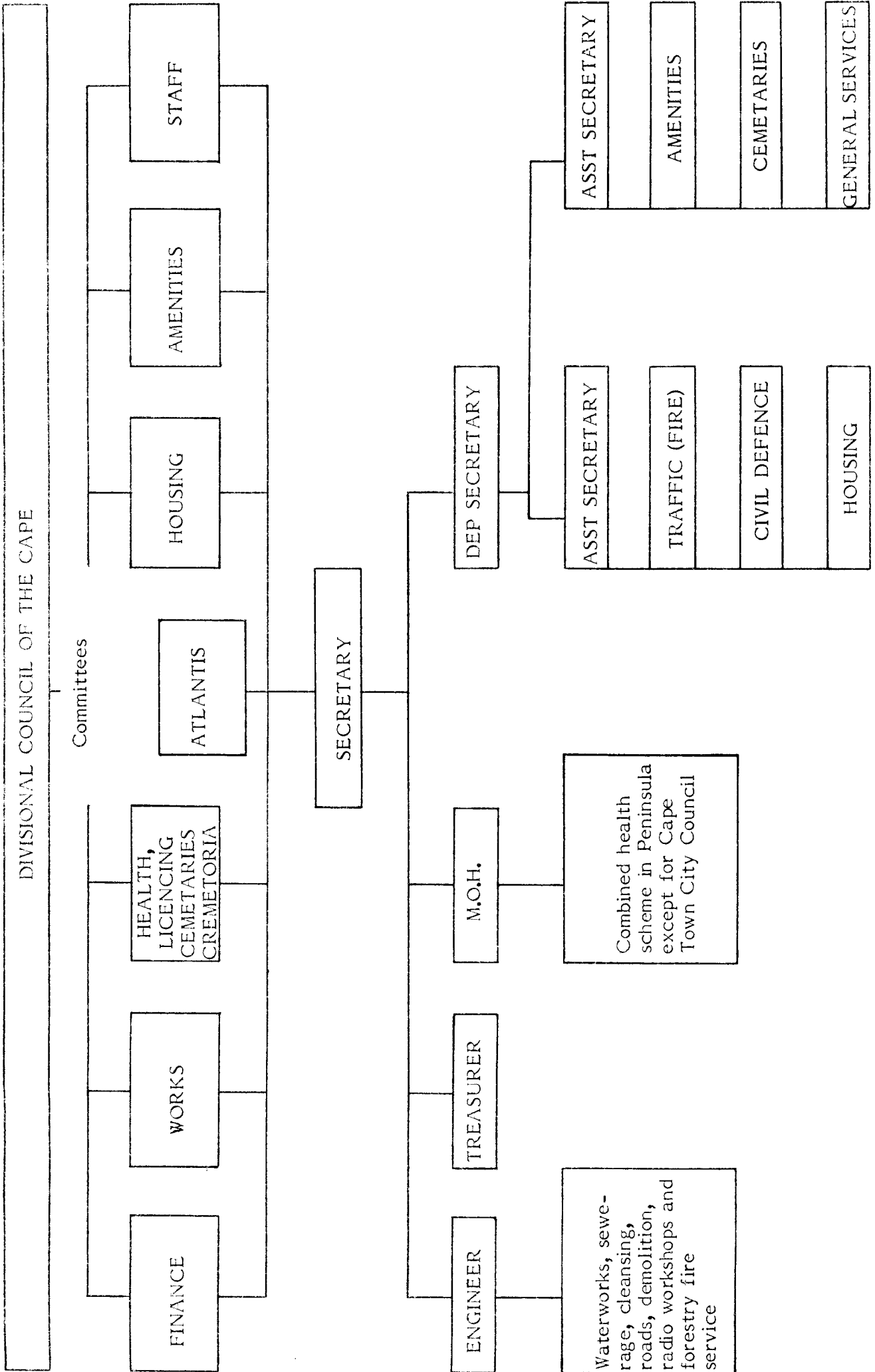
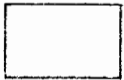
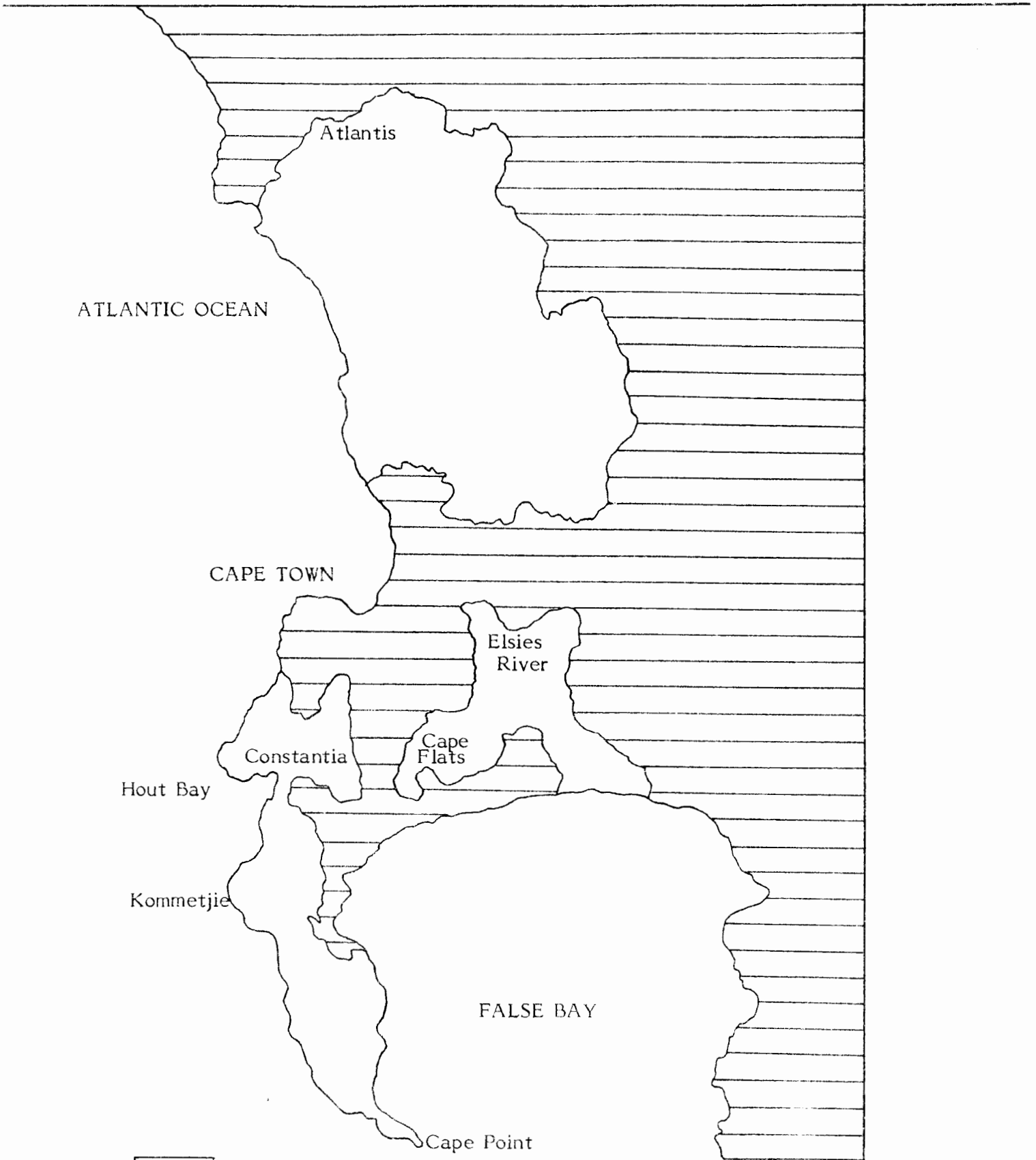
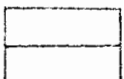


FIG 11

AREA OF JURISDICTION : CAPE DIVISIONAL COUNCIL



Cape Divisional Council



Other Local Authorities

Modified from: SAAME
Journal, CDC Branch,
December 1980

- 2.5 Whilst the Council's area of jurisdiction includes the areas of jurisdiction of other municipalities its services are essentially restricted to the local areas and rural area. In the case of civil defence the Council's activities and responsibility are restricted to the local areas and rural area.
- 2.6 South Africa's first and only nuclear power plant is situated in the Council's area of jurisdiction.

3. SERVICES

- 3.1 A regional health scheme, known as the Combined Health Control Scheme, incorporates the Municipalities of Bellville, Durbanville, Fish Hoek, Goodwood, Milnerton, Parow, Pinelands and Simonstown; the Mamre Board of Management; and the Nyanga Township is administered by the Council's Department of Health. The Department's 263 members of staff operate 21 established clinics which are serviced by satellite clinics and four mobile clinics.⁸
- 3.2 The Council is responsible for all public cemeteries and crematoria in its area of jurisdiction, including municipalities.⁹
- 3.3 The Council's traffic establishment of 59 members is responsible for traffic control, vehicle inspection and the running of the Ottery Training Centre for Traffic Officers, in conjunction with the Cape Provincial Administration. This serves trainees from the Cape Provincial Administration, the City of Cape Town and other local authorities.¹⁰
- 3.4 The Council operates two fire services: The Engineer's Department's forest fire service chiefly serves the rural area, and the Traffic Section's fire service serves the local areas (see Fig 11). The latter service is provided by the following stations:¹¹

"A" Station	Cape Flats Fire Fighting Sub-section, Ottery
"B" Station	Atlantis Fire Station, Atlantis
"C" Station	Constantia Fire Station, Constantia

Forestry fire stations are situated at Hout Bay, Brakkloof and Smitswinkel Bay.

- 3.5 The Council maintains nature reserves, caravan parks, picnic sites, libraries and sport centres.

4. CIVIL DEFENCE ORGANISATIONAL, COMMAND AND CONTROL STRUCTURE

- 4.1 The Secretary of the Divisional Council of the Cape has been appointed as the chief of Civil Defence in terms of section 3(2) of the Ordinance (see 4.4.7).
- 4.2 In terms of regulation 2 of the Regulations under the Civil Defence Ordinance, 1977, the Divisional Council of the Cape Civil Defence Corps was established.
- 4.3 The Corp's Headquarters or Control Centre, is situated in the Divisional Council Building, 44 Wale Street, Cape Town.
- 4.4 The Control Centre consists of a radio room and a control room. The Council's radio communications centre is situated at the Schaapkraal Constructions Camp on the Cape Flats, from where all communications are controlled and monitored. The Council's radio network covers three frequencies for the Traffic Section, its fire service and recreation sites; the Engineer's Department and Waterworks; the Forestry Service and Cape Point Nature Reserve. In addition to its internal network, the Council is linked by radio to Metro Control which is capable of linking the Council to other organisations (see 7.6.3). The Control Centre's radio room is equipped to monitor radio communications, or to control it as an alternative to Schaapkraal. During operations a committee room, which has communication links with the radio room (situated on a different floor) serves as the control room. In the event of a disaster this room will be furnished with maps, data (see 9.5.2) and other requirements, which are presently housed in the Civil Defence Officer's office. The Centre is not equipped with an emergency power supply.¹²

- 4.5 An alternative control centre is being established at Kendal Road, Constantia, where an alternate radio room has been established. The Council possesses a Mobile Control Vehicle (MCV), which is less sophisticated than the one operated by the City of Cape Town. The Council's vehicle is, however, in daily use by the Traffic Section for other purposes.¹²
- 4.6 The Control Centre will be manned by the Chief of Civil Defence, the Civil Defence Officer and other Council employees, dependent on the nature and extent of the disaster. The Centre becomes fully operational in the event of a declared disaster (see 4.4.1).¹²
- 4.7 Apart from the Chief of Civil Defence, the Council's civil defence organisation is staffed by a Civil Defence Officer who was appointed in 1976. In addition to his civil defence responsibilities he is responsible for the Council's head office security and cleaning personnel. The Council has appointed 81 Civil Defence Corps members and 496 Council employees as "deemed" Corps members (see 4.5.1). In addition to these Corps members the Council has appointed 240 "B" group members - persons willing to assist during a disaster but not willing to be bound in terms of statutory Corps membership (see 4.8.6). For the benefit of the "B" group members the Council has negotiated insurance cover with a large insurer to provide for compensation as these members are precluded from the State's compensation scheme (see 4.2.8).¹²
- 4.8 The Council's area of jurisdiction has for civil defence purposes been divided into five zones with an engineer's post serving as a command post or headquarters for the zones as follows:¹²

<u>Zone</u>	<u>Headquarters</u>
Koeberg	Durbanville Depot
Elsies River	Elsies River Unit
Cape Flats	Schaapkraal Construction Camp
Constantia	Kendal Road, Constantia
Kommetjie	Brakkloof Forest Station

Certain of the above-mentioned zones have been provided with sub-zones as follows:

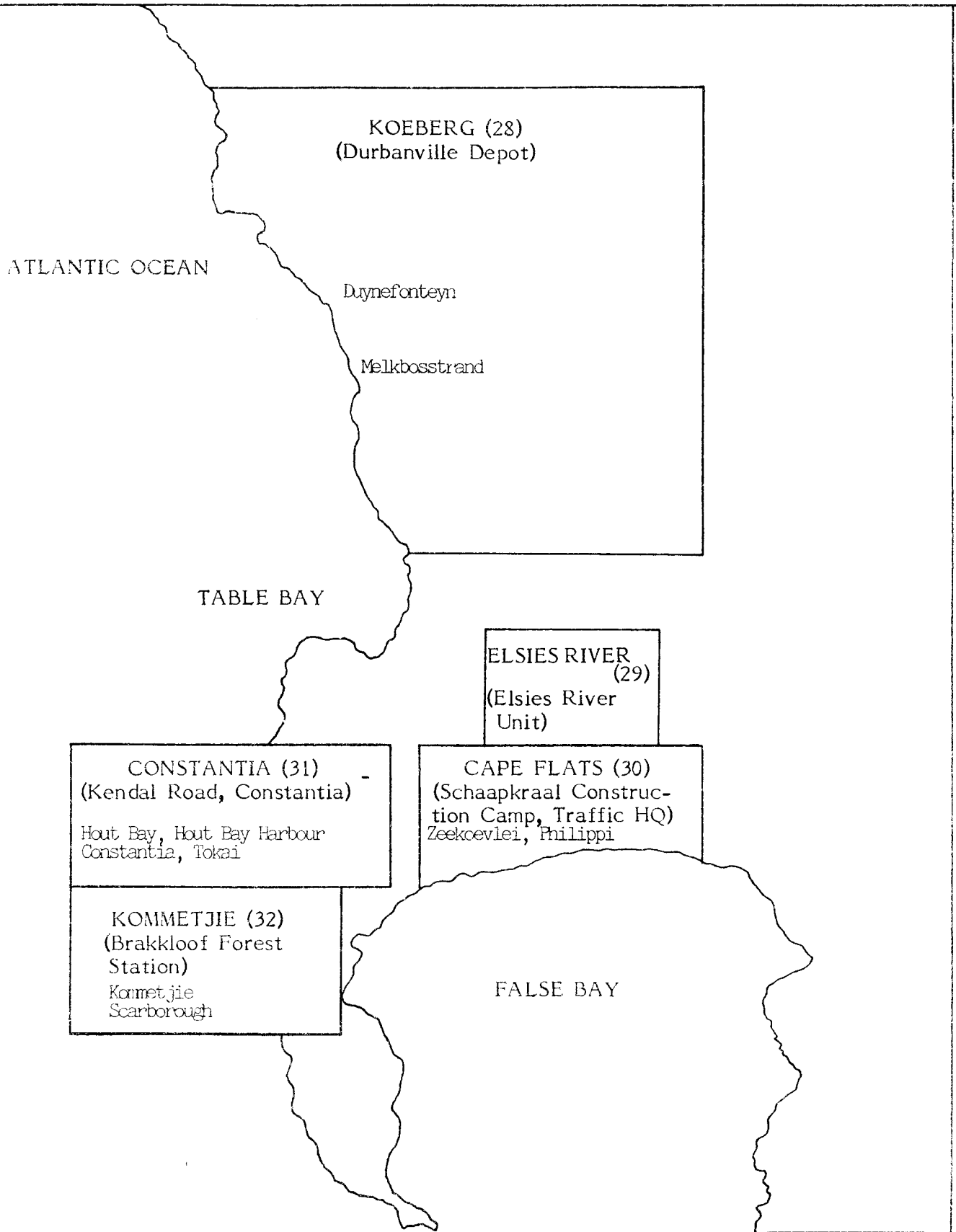
<u>Zone</u>	<u>Sub-zone</u>
Koeberg	Atlantis Duynefonteyn
Constantia	Hout Bay

The zones and headquarters are identified on Map 5.

- 4.9 The zone headquarters and sub-zone headquarters are linked to the Control Centre by means of telephone and radio links. They are equipped to serve as local control centres. Applicable data held at the Control Centre is duplicated at their headquarters and all fire stations.¹²
- 4.10 In addition to their daily function, certain Council employees serve as Zone Commanders and Sub-zone Commanders. They are responsible for all units and officials in their zones. Units are civil defence organisations established in local or rural areas. These units nominate their own leaders (called Local Leaders) and committee members who are responsible for canvassing members. Units may be divided into wards, headed by Wardens. Wards may be sub-divided into sections and teams. The Civil Defence Officer is the co-ordinator of all non-operational civil defence activities.¹³
- 4.11 The Civil Defence Corps is divided into the following sections (see 4.4.2):¹⁴

Fire Fighting and Rescue Section;
 Communications Section;
 Maintenance of Essential Services Section;
 Water Services Section;
 Traffic Control Section;
 First Aid and Health Section;
 Control and Administration Section;
 Care and Comfort Section; and
 Transport Section.

CIVIL DEFENCE AND MEDICAL ZONES, HEADQUARTERS AND UNITS: CAPE DIVISIONAL COUNCIL



CIVIL DEFENCE ZONES (Headquarters in brackets)
 Civil Defence Units (Local Areas)
 (28 - 32) Medical Zones (MMAPs in brackets)

The above-mentioned sections are similar to those of the City of Cape Town (see 8.4.12), except for the additional Water Services Section which is restricted to Council employees. The various sections are headed by Section Leaders and may comprise various teams led by Team Leaders. The civil defence structure is contained in Fig 12.

4.12 For emergency medical treatment five medical zones and headquarters (MMAPs), identical (except for one headquarters) to the civil defence zones and headquarters, were established. The medical zone headquarters in zone 30 is situated at the traffic headquarters (see 7.6.11 and Map 5).

4.13 In the event of a "normal" disaster or a major incident, the Divisional Council of the Cape as a member of the Metropolitan Rescue Organisation, adopts the Organisation's disaster site control structure, as in the case of the City of Cape Town (see 8.4.15).¹² However, in the event of a major disaster, as defined in 4.4.1, the following command and control flow is activated (to be read in conjunction with Fig 13):

1. Zone Command

- 1.1 Calls Engineer for assistance (1)
- 1.2 Activates MAP or FAP (5) and notifies Civil Defence Officer (7)
- 1.3 Calls for Civil Defence Corps assistance and activates Civil Defence Corps (6)
- 1.4 Requests Disaster Relief (7)

2. Engineer

- 2.1 Calls Secretary for assistance (2)
- 2.2 Co-ordinates zone activities

3. Secretary

- 3.1 Via Civil Defence Officer (3) activates Central Control (8)
- 3.2 Authorises activation of Civil Defence Corps (4)

Secretary (Chief of Civil Defence)

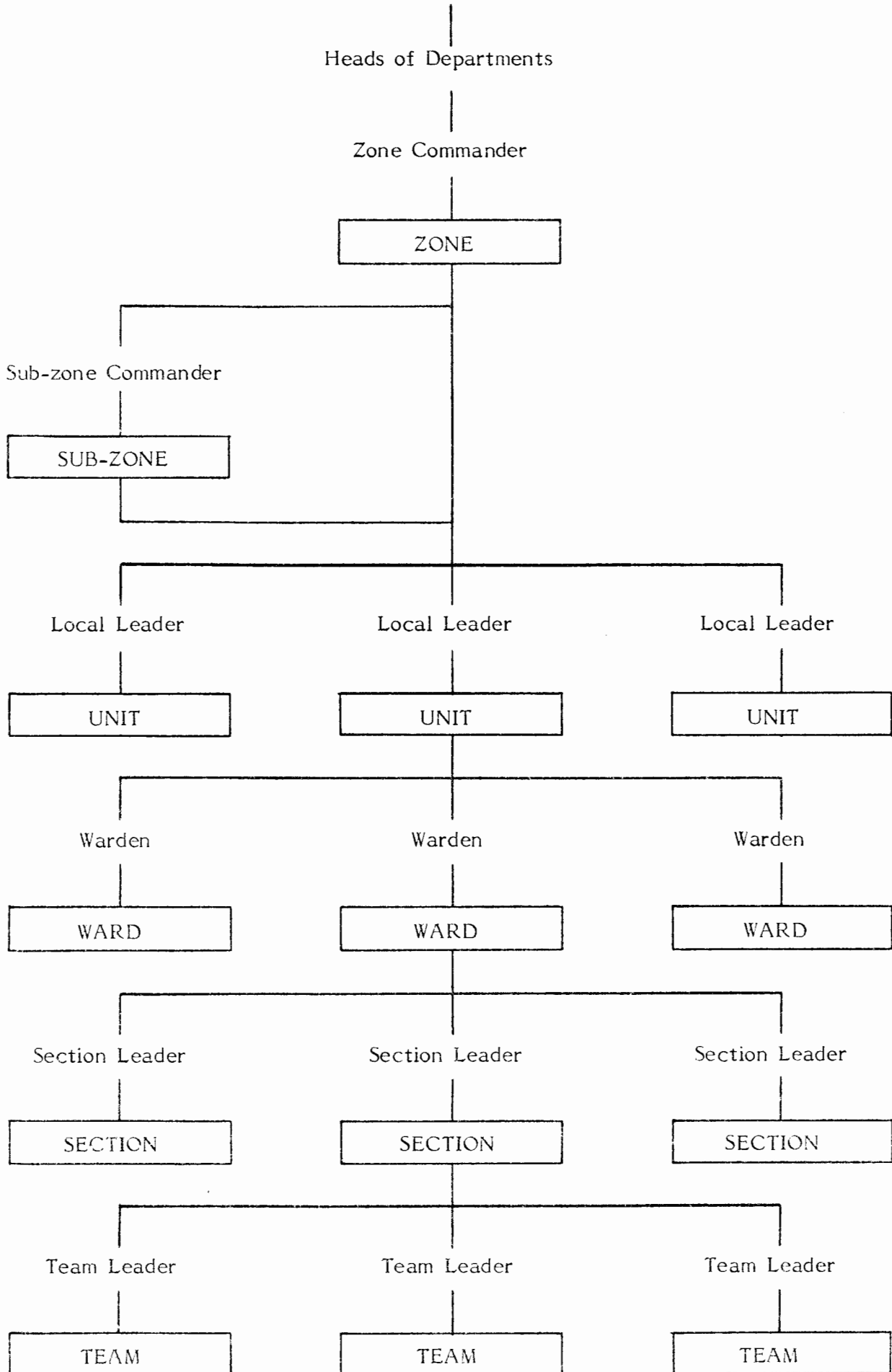


FIG 12

- 3.3 Calls greater Cape Town (11) or State Department (12) for assistance
- 3.4 Authorises Disaster Relief (9)

4. Civil Defence Officer

- 4.1 Notifies Secretary (10) of activation of MAP or FAP (see 1.2)
- 4.2 Activates Central Control (8)
- 4.3 Advises of Disaster Relief plans (report from Information Officer) and requests authority to activate (10)
- 4.4 Liaises with zone command, Central Control, Overall Services and Civil Defence Corps

5. Central Control

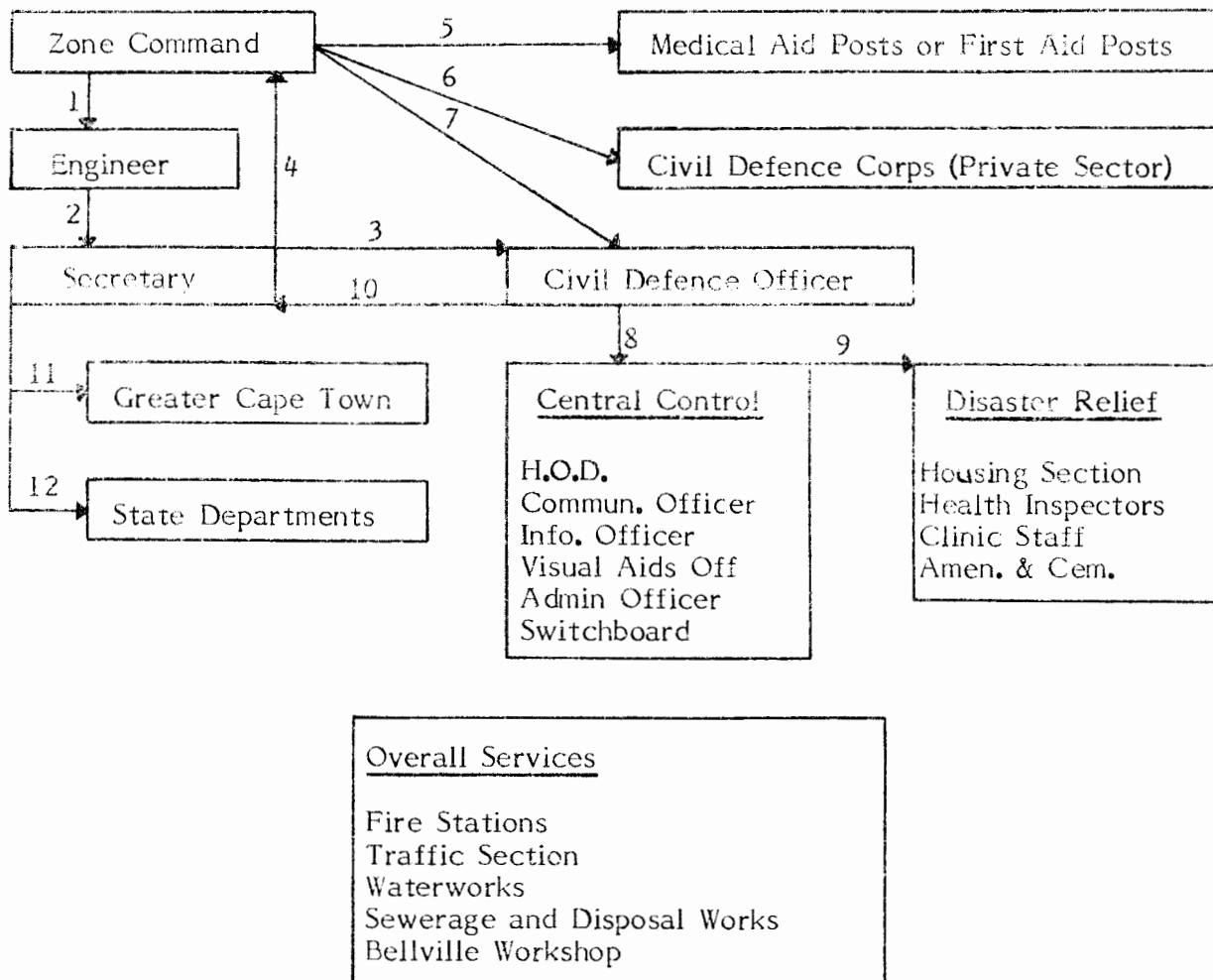
- 5.1 Heads of Departments monitor, authorise, put staff on and off duty
- 5.2 Communication Officer mans radio and telephone Units
- 5.3 Information Officer reports on projects
- 5.4 Visual Aids Officer prepares maps, plans
- 5.5 Administrative Officer controls office traffic

6. Overall Services

Respond to all justified calls.¹⁵

5. CIVIL DEFENCE PLAN

- 5.1 The Cape Divisional council civil defence plan is in the process of being developed and updated and consequently the information contained in this section will be limited. The plan will closely resemble that of the City of Cape Town and other local authorities. Each zone is responsible for the development of a plan for the zone which would include the plans for the units (see 8.5.2).



Source: Divisional Council of the Cape, Civil Defence Mini Databank, 1979

FIG 13

5.2 It is proposed that the plan will contain, inter alia, extensive data on the following:¹⁶

5.2.1 Range of Services

The various services identified to be of importance during a disaster.

5.2.2 Communication

All forms of communication required.

5.2.3 Chain of Command

Council departments, sections, branches, resources, liaison with other bodies, staff structure and all staff.

5.2.4 Council Resources

Radio stations, radio vehicles, fire-fighting vehicles, water tankers, trucks, cars, tractors, trailers, motor-cycles, hydrants, additional water supplies, electricity-generating plants, petrol supplies, workshop facilities, mechanical equipment, building equipment, first aid posts, halls, open land for settlement, tents, huts, medical supplies, beds and bedding.

5.2.5 Civil Defence Zones

All resources identified in zones for civil defence purposes.

5.2.6 Zone Plan

Details of all resources, action plans, maps, facilities in various zones.

5.2.7 Overall Council Assistance

Services for use by all zones - free standing units.

5.2.8 Liaison with State Departments

SADF; SAP; Department of Health, Welfare and Pensions; Department of Internal Affairs; Department of Public Works; Department of Posts and Telecommunications; South African Railways and Airways.

5.2.9 Action

The lines of action to be taken in the event of a disaster (see 9.4.13).

5.2.10 Records

All civil defence information including various maps and cross-reference of resources.

- 5.3 Data is stored on a system of cards specifically designed by the Council for civil defence purposes (see Appendix 2). Part of the data is stored in a mini databank in the form of a pocket book (see 9.6.12).

6. CIVIL DEFENCE ACTIVITIES

- 6.1 In addition to the various administrative tasks involved in civil defence, the Council's Civil Defence Officer and various Corps members are involved in a variety of related activities as in the case of the City of Cape Town.
- 6.2 As civil defence is an on-going process, the Council regularly prepares detailed instructions and guidelines for the establishment and maintenance of various civil defence components.
- 6.3 Corps members are involved in the recruitment of Corps members. The Council is determined to increase its present membership and has appointed Zone Commanders, Controllers, Wardens, Section Leaders and Team Leaders.
- 6.4 The Civil Defence Officer facilitates the training of Corps members. Hundreds have been trained in fire fighting, first aid and rescue.¹⁷ In addition 300 officials were introduced to the Hazchem system of chemical identification.¹⁸
- 6.5 The Civil Defence Officer and members regularly address a variety of persons and organisations. The Officer lectures to nursing students at the University of Cape Town.
- 6.6 Many organisations are visited to advise on the development of the organisations' emergency plans. The Civil Defence Officer was involved in the development of the nuclear plant area's emergency plan.¹²
- 6.7 The Council has produced a variety of booklets, brochures and information guides on a variety of topics related to civil defence.
- 6.8 The Council is represented on a variety of civil defence related organisations, notably the Metropolitan Rescue Organisation (see 7.6.2). The Civil Defence Officer liaises with other civil defence organisations and other Council departments and branches.

- 6.9 The 32 medical posts in the Council's area of jurisdiction were equipped with the required medical supplies, and units were equipped with radios. The equipment is regularly maintained.
- 6.10 A variety of exercises which simulated disaster situations have been embarked upon. These include a petrol tanker accident; destruction of telephone exchange; evacuation of a hall during a fire; fire in a school, with no existing communications; and the destruction of a housing unit, requiring alternate housing.¹²
- 6.11 The Civil Defence Officer is responsible for determining the needs of those communities indirectly related to civil defence. In this manner the Officer was responsible for the establishment of the Atlantis fire station.¹²
- 6.12 The Officer has compiled an extensive guide to emergency housing and feeding which will be of benefit to Greater Cape Town. Similarly, a mini databank of pocketbook size was prepared for distribution to all Metropolitan civil defence officers. This databank contains all the required information with regard to emergency services in the region. The civil defence data cards developed by the Officer has also been adopted by other civil defence organisations (see 9.5.3).
- 6.13 The Council and the various units were responsible for the majority of exhibits at a civil defence exhibition hosted by the Red Cross Association during 1978.¹²
- 6.14 The Council is involved in community fact-finding surveys to determine the community's resources. A recent survey in Hout Bay furnished the Council with a wealth of information. This information was processed and part of it was disseminated to the members of the public for use in the event of an emergency.¹⁹
- 6.15 Various meetings are held with the local leaders to discuss a variety of civil defence matters. These meetings are often held after hours, or on week-ends. Very often these discussions are accompanied by exercises designed to integrate theory and practice.²⁰

- 6.16 The Council's policy is to involve the community in the development of their own local civil defence units. Civil defence units exist at Duynfonteyn, Melkbosstrand, Hout Bay, Hout Bay Harbour (Coloured community), Constantia, Tokai, Philippi, Zeekoevlei, Kommetjie and Scarborough (see Map 5). These units vary in size and state of preparedness. In the event of a disaster these units are capable of operational duty. They have been provided with the required equipment, such as radio, identification, medical supplies and maps.
- 6.17 The Duynfonteyn Sub-zone covers the Koeberg Nuclear Power Station and its adjacent village. To meet with the requirements for the licensing of the plant an emergency plan was required. The plant has developed a sophisticated plan designed to meet any contingency. The village's plan, while not yet complete, is designed to serve in conjunction with the plant's emergency plan. Similar to other units, residents have been involved in serving in various civil defence capacities. ESCOM operates a public relations service from the plant to inform the public and the media of the station's operations, and in the event of a disaster or an impending disaster this service will inform the public and the media of the appropriate action to be taken. The Sub-zone Commander for Duynfonteyn is the plant's manager (the only Sub-zone Commander not in the employ of the Council).²¹
- 6.18 The only Coloured civil defence organisation in the Council's area of jurisdiction is situated at Hout Bay and is well patronised. Meetings and training sessions are held every week. This unit was responsible for the acquisition of their own uniforms and helmets.²²
- 6.19 The civil defence organisation at Zeekoevlei has developed a comprehensive emergency plan. The area is divided into five wards which are headed by Wardens responsible to the Local Leader. Section Leaders have been appointed to lead five specialist sections. The plan contains details on identification, maps, communications, alerts, procedures and the responsibilities and tasks of the various members. The area has a databank to serve its area. The unit has 24 members and is operational.²⁴

7. COMMENTS

- 7.1 The comments which follow are based on the interpretation of available material and information. It should be noted that the service is in the process of being enlarged and improved upon.
- 7.2 In the past, the primary function of a divisional council was to provide and maintain roads in rural areas. As rural areas around the City of Cape Town were developed and populated many other municipal related functions were added.
- 7.3 From the information contained in 3.3 it would appear that an organisation to cope with disasters within the Council's area is justified.
- 7.4 The Council's large area of jurisdiction consisting of many local areas surrounded in the main by large rural areas makes effective civil defence planning difficult. The Council's resources, unlike those in the case of the City Council, are thinly spread over a large area (see 9.2.3 and Map 4). Many local areas have few access routes and in many cases local areas can easily be isolated in the event of a disaster. This creates difficulties in planning for various forms of communication. Zeekoevlei for instance, has, only one access route.
- 7.5 While the Council provides various services to local authorities in its area (see 9.2.5 and 9.3) emergency services are not provided nor are they shared by the various authorities in spite of the fact that many of the Council's local areas border on the areas of other local authorities. The rationalization of emergency services would greatly enhance civil defence capabilities.
- 7.6 The decentralisation of the civil defence service has, to a certain extent, countered the difficulties created by the geographic lay of the Council's area. The provision of zones, sub-zones, units, wards, sections and teams more closely resembles the cell system than that of the City of Cape Town (see 8.7.6). This system fosters community participation, and the development of various units in the local areas has led to their partial independence and improved

self-help capability. It is noteworthy that civil defence data is widely disseminated to zone, sub-zone and unit headquarters and all fire stations facilitating immediate disaster relief action.

- 7.7 While the Control Centre is functional, its facilities do not equal that of the City of Cape Town. It would be preferable to have the control room and radio room adjacent to one another and permanently equipped. Duplication of the Centre and decentralisation virtually ensures continued command and control during a disaster. The absence of an emergency power supply is a serious short-coming. The Council's MCV is not equipped with four-wheel drive and it is questionable whether the vehicle is capable of negotiating the rough terrain which is so prevalent in the Council's area and during a disaster (see 9.4.4).
- 7.8 Among other the use of a Traffic Section vehicle as MCV, the use of a conference facility as control room and senior personnel as Commanders is evidence of the Council's civil defence policy of rational deployment of existing resources. In the event of a disaster the Commanders will be well suited to cope because of their extensive knowledge of the area and its resources. Similarly, the appointment of the nuclear plant's manager as Commander for that sub-zone increases the viability of the service.
- 7.9 While relying more heavily on the community to assist in its civil defence service the Council, as in the case of the City of Cape Town, does not make use of planning committees (see 8.7.9).
- 7.10 As Secretary (chief executive officer) the Chief of Civil Defence has the required authority to command the Council's resources. The Council's command structure and distribution of authority is more clearly identified than in the case of the City of Cape Town. The functions of the various line personnel are clearly defined and the clear command and control flow will facilitate rapid deployment of emergency relief forces (see 8.7.8, 9.4.13 and Fig 13).
- 7.11 While the data storage or civil defence cards designed by the Civil Defence Officer is very effective, the mass of data that constantly requires updating warrants the employment of a

computer storage system. The Council has computer facilities, and the provision of a terminal will enhance the efficiency of the civil defence organisation.

- 7.12 The Council's civil defence organisation is very active and has embarked upon some ambitious projects. The community surveys were innovative and serve both the community and civil defence. The Council was the most active exhibitor at the civil defence exhibition and was responsible for impressive displays involving the various communities. The Council has organised numerous civil defence exercises, as opposed to the exercise held by the City of Cape Town. Although the disasters simulated were not Situation Red alerts they nevertheless served to train and involve members, thus maintaining interest.
- 7.13 The Hout Bay Harbour unit is the only non-White civil defence unit in the Council and City Council's area of jurisdiction. This unit is motivated, eager and dedicated and dispels the oft-held belief that races other than White are not prepared to serve in civil defence capacities. It is a credit to the Council that such a vibrant unit serves under its aegis. At the same time it is alarming to note that for the combined non-White population of the two areas of 944 370 only one small civil defence unit exists (see 8.1.3, 8.7.5 and 9.1.3).
- 7.14 It is also noteworthy that no civil defence organisation exists in the rapidly developing industrial and residential complexes at Atlantis. It is an ideal opportunity for civil defence to develop with the community. In the absence of an effective civil defence organisation this community, because of its proximity to the nuclear power station, will be very susceptible to psychological rumour related to nuclear contamination.
- 7.15 While the City of Cape Town has 12 members per 918 500 population as opposed to the Council's 321 per 321 710 population both the City and the Council have approximately the same salaried staff complement (deemed members). The Council has only one salaried staff member, as opposed to the City's ten members (see 8.7.5, 9.13 and 9.4.7) in spite of the Council's much

larger area of jurisdiction and its concomitant civil defence organisational difficulties (see 9.7.4). The creation of the "B" group membership is an effective method of bypassing the reluctance to serve in terms of the Ordinance. It would appear that if the recruitment of members is correctly approached the much quoted "apathy" is absent.

- 7.16 The number of active civil defence units in the Council's area of jurisdiction is the result of the Council's policy of helping the community to develop its own civil defence organisation, relevant to local needs rather than foisting a council-devised organisation upon them. This is what civil defence should be - a community-sponsored organisation for the benefit of the community. From the state of preparedness and the number of members recruited it would appear that the community-sponsored approach is effective in the establishment of viable civil defence units.
- 7.17 Placed in juxtaposition to the City of Cape Town, the Council's civil defence organisation appears to be less sophisticated in terms of equipment but more superior in terms of membership and community involvement.
- 7.18 While many more members need to be recruited and more units need to be established, and certain improvements in terms of equipment need to be made, it would appear that in its present form, the Council's civil defence organisation is capable of operational duty.

8. NOTES

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6. Loc. cit.
7. W. Albertyn, op. cit., p.142
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14. Ibid., pp.1 - 3
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16. Divisional Council of the Cape, Civil Defence Plan, [Cape Town], June 1976
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10

CASE STUDY - BOLAND EARTHQUAKE DISASTER (1969)

CONTENTS

1. INTRODUCTION
2. EARTHQUAKE AND LOCALITY
3. DAMAGE AND REACTION
4. ACTION AND RESTORATION
5. PRESENT ORGANISATION (AS AT 1977)
6. COMMENTS
7. NOTES

1. INTRODUCTION

- 1.1 The Boland Earthquake Disaster was a major event in the history of South Africa. It was the most severe earthquake recorded in this country and drew reaction from the population throughout South Africa.
- 1.2 Its inclusion, in the form of a case study is two-fold, namely, it is the only major disaster to occur in the Western Cape and it affords one the opportunity of evaluating the community's reaction and the rehabilitative efforts undertaken by the various levels of government and private initiative.
- 1.3 At the time of the earthquake the area was not served by a civil defence organisation nor were the various levels of government adequately prepared. The present state of preparedness, which resulted in part by the experiences learned at the time, is in sharp contrast.

2. EARTHQUAKE AND LOCALITY

- 2.1 The most devastating earthquake so far recorded in the history of Southern Africa struck the Boland area at 22h03 S.A.S.T. or 20h03 32,8 G.M.T. on 29 September 1969.¹ The earthquake was registered on more than 130 seismographs throughout the world.
- 2.2 The magnitude of the earthquake was 6,3 on the International Richter Scale and the intensity measured VII on the Modified Mercalli Intensity Scale.² The epicentre of the main shock was graphically determined as 33°11'S 19°11'E, being just north of Tulbagh, and the local depth was shallow.³
- 2.3 Earthquakes in the Boland area were recorded prior to the 1969 Earthquake. Some of the more severe earthquakes were as follows:⁴

Date	Translated intensity Modified Mercalli Scale	Translated magnitude International Richter Scale
Dec. 4-12, 1809	VII - VIII	6,1
Dec. 4, 1920	IV	6,2
Aug. 27, 1963	VI	5,0
Sept. 12, 1969	IV - V	5,4

2.4 After the earthquake of 29 September 1969, subsequent earthquakes and tremors in the Boland area were recorded, notably the following:⁵

Date	Translated intensity Modified Mercalli Scale	Translated magnitude International Richter Scale
Oct. 1, 1969	III	4,2
Apr. 14, 1970	VII	5,7
Sept. 28, 1971	IV - V	4,8

2.5 The area most affected included the towns of Ceres, Tulbagh, Wolseley and Prince Alfred Hamlet and commonly referred to as the Boland Disaster Area. The geographical area is positioned between Latitude $33^{\circ}15'$ and $33^{\circ}30'$ and Longitude $19^{\circ}30'$.⁶

2.6 At the time of the earthquake the approximate population of Ceres was 5 400; Wolseley 2 500; and Tulbagh 1 400.⁷

2.7 The area is mountainous and includes the following mountains/mountain ranges: Wintershoek, Saronsberg, Oukloof, Elandskloof, Witzenberg, Skurweberg and Hex River. The average height is above 1000 m, peaks reaching higher than 2000 m.⁸

2.8 The Kleinberg, Breë and Olifants rivers supply the area with water. Main storage dams include the Koekedou and Ben Etive dams. The climatic conditions are moderate and the area is within the winter rainfall area.

2.9 Apart from the towns, the area is sparsely populated. Fruit, wine, grain and sheep farming are practised in the region and the major forms of communication include road, rail and telephone links.

2.10 As the area was first settled in the early 18th Century, many of the homesteads date back to this period.

3. DAMAGE AND REACTION

3.1 To evaluate the damage caused to the buildings the Richter classification of buildings was modified to suit the local conditions as follows:

- Type A - Reinforced concrete buildings.
- Type B - Brick buildings with some measure of reinforcement.
- Type C - Modern brick buildings using good quality mortar.
- Type D1 - Brick buildings using clay for bonding and plastering.
- Type D2- Buildings constructed of mud and stones and stones only.⁹

Of the few towns mentioned only Ceres suffered severe damage to modern buildings (Type A and B). Type D houses were severely damaged and in some cases destroyed in all four towns. Damage to the buildings on the various farms in the area varied from severely damaged to slightly damaged.

3.2 Inspectors of the Department of Community Development assessed the damage according to the following scale:

- (a) Buildings that are still serviceable and can be inhabited with reasonable safety.
- (b) Buildings that could only be inhabited safely after undergoing repairs.
- (c) Buildings that were a danger to life and had to be demolished.¹⁰

3.3 The initial result was tabled as follows five days after the disaster:¹¹

	Group a	Group b	Group c	TOTAL
Ceres	391	153	287	831
Tulbagh	133	45	64	242
Wolseley	<u>68</u>	<u>50</u>	<u>65</u>	<u>183</u>
	592	248	416	1 256

3.4 Among the more severely damaged homesteads were, "Doringkraal", "Twee Jonge Gesellen", "La Rhone", "Montpelie", "Schoongesicht" and "Waterval".

3.5 Historic buildings in the area were severely damaged, notably the Drostdy in Tulbagh, "Ballotina", Digger's Home and the De Wet House designed by Louis Michel Thibault. The church steeple of the Nederduitse Gereformeerde Church at Ceres was destroyed, and in the local cemetery tombstones were wrenched off their foundations.

3.6 The estimated cost of the damage was approximately R19 000 000, classified as follows:¹²

Damage to uninsured buildings belonging to the private sector (normal building costs)	R6 196 735
Plus 30% increased building costs in area	R1 859 020
Demolition costs	<u>R 200 000</u>
	R8 255 755
Estimated cost of above-mentioned constructions outside the proclaimed disaster area	<u>R 200 000</u>
	R8 455 755
Damage covered by insurance	R6 000 000
Cost of temporary housing	R2 500 000
Damage to municipal and state buildings	<u>R2 000 000</u>
TOTAL	<u>R18 955 755</u>

3.7 The town of Ceres had two supplies of electricity during 1969; the municipality generated power by means of their 1000 k VA hydro-electric plant; and ESCOM supplied a further 3000 k VA.¹³ During the earthquake the power circuit-breakers tripped out and power was restored the following day after an inspection of all the installations and the disconnection of approximately 100 homes from the power supply. Tulbagh and Wolseley also suffered blackouts.

3.8 The tremors caused many "dry" springs and wells to deliver water once again because of the shifting of the water table and major water bearing arteries.

3.9 The Koekedou dam's water was saved from being lost by the swift

action of the electrotechnical engineer of Ceres and thus Ceres was without water for a short period only.¹⁴

- 3.10 The water supply to Wolseley was cut off as a result of the underground pipes being damaged and earth dam walls throughout the region were damaged.
- 3.11 Forms of communication were interrupted and in some cases damaged. Trunk telephone services were interrupted mainly as a result of damage caused to the link via Mitchell's Pass although services were restored the following day.

Probably the most serious effect of all was the extreme congestion on the trunk circuits to the towns in the vicinity of the earthquake. This lasted for several days and special arrangements had to be made to provide emergency calls on a manual basis.¹⁵

- 3.12 Rockfalls occurred, particularly in Mitchell's Pass, which resulted in temporary suspension of road communication.
- 3.13 The mountains surrounding Ceres were ablaze caused mainly by static electricity, friction and gas escaping from the soil.
- 3.14 According to the Cape Times "... The huge tremor terrified thousands of people in the Peninsula . . . and hundreds stood utterly bewildered in the streets in fear of further shocks."¹⁶ The following was said of Wolseley in the Cape Times, "The entire population are walking the streets. They refuse to go back into their houses."¹⁷
- 3.15 In her account of the reaction of the various members of the community to the earthquake Cillie¹⁸ conveys the feeling of utter despair. Her account goes on to say that the earthquake was seen by various people as the battle of Armageddon whilst others thought it to be a nuclear attack.
- 3.16 Alhadeff summed up the reaction of people when he stated that "Hell came to Ceres, Tulbagh and Wolseley that week. It came in the form of death, destruction, panic and perhaps, worst of all, unbearable fear that the devastation would not end".¹⁹

4. ACTION AND RESTORATION

- 4.1 The Directorate of Civil Defence was originally to be incorporated as a Directorate of the SA Army from November 1, 1969. However, as a result of the severity of the disaster the Chief of the Army assumed responsibility for the emergency services.²⁰
- 4.2 On September 30, 1969 at 08h30 the Officer Commanding, Western Province Command was instructed to take command of rescue services and an operations room was established at the Castle, Cape Town. The Defence Force sent representatives to the area per helicopter to assess the communities' needs.
- 4.3 The Defence Force's energies were chiefly directed in meeting the immediate needs of shelter, water, electricity and communications.
- 4.4 Within a matter of days the Defence Force supplied and erected 3 033 tents which were flown from various bases in South Africa and the following amenities were provided:
- (1) They established a central office in the Municipal building in Ceres, from where the first organised relief was undertaken.
 - (2) They provided radio contact with other centres while the telephone services were disrupted.
 - (3) While the water supply to Ceres was disrupted they supplied 22 water carts to provide the whole of Ceres with water for 4 days.
 - (4) The helicopters flew in the water pipes to repair the water supply pipeline to Ceres.
 - (5) They assisted the South African Police in the patrolling of streets and guarding of damaged business premises.
 - (6) Transport of furniture from damaged houses to temporary storage places.
 - (7) Demolition of those buildings which were a potential danger to the public.
 - (8) Establishing road blocks on all roads leading into the area to prevent sightseers from entering the area.
 - (9) Levelling of sites for temporary housing and grading of roads.
 - (10) Evacuation of 283 Coloured children from Steinthal to Faure.
 - (11) Clearance of rubble on pavements.²¹
- 4.5 In addition the Defence Force organised concerts and film shows and gave advice and guidance to the relief committees established locally as branch committees of the Boland Disaster Committee.

- 4.6 The Defence Force employed 126 vehicles which did a total of 120 322 miles, 7 helicopters and deployed 345 men in the area.²²
- 4.7 The assistance rendered was essentially of a temporary nature and lasted from September 30, 1969 until October 17, 1969 when the SA Defence Force withdrew.
- 4.8 The Department of Community Development which featured prominently in the Inter-departmental Committee activities, seconded building inspectors to assess damage and to categorise buildings and their estimated damage.²³
- 4.9 The role played by the Provincial Administration was as follows:

The Provincial Administration played a very important role in providing the temporary school hostels and classrooms where it was required . . . The Provincial Administration also undertook to give financial assistance to the four local authorities to meet the cost of repairing damaged services or the provision of new services for the temporary houses.²⁴

- 4.10 It was realised that the rehabilitation of the area would have to be a combined effort and therefore the Prime Minister appointed an Inter-departmental Committee with an executive committee on October 2, 1969 representing 12 State departments and the Provincial Administration. He also established a Cabinet committee consisting of three ministers to approve and expedite measures adopted by the Inter-departmental Committee.
- 4.11 Steps taken by the Inter-departmental Committee included the following: erection of 971 temporary houses on a 6 month rent free basis; supply of permanent homes for Whites and Coloureds through the Department of Community Development; repairs to homes for the aged and children; assistance to farmers experiencing agricultural difficulties; determining priorities and allocation of temporary homes; supervision of the erection of houses; granting permits to erect and improve houses (the area was frozen for 6 months in terms of section 2 (e) of the Community Development Act, 1966); determining a formula for compensation;

the introduction of information centres, announcements with regard to geological conditions and the restoration of historic buildings; and the launching of a local newspaper, Our Courier, which was sponsored by a petroleum company.²⁶

- 4.12 Emergency action committees consisting of local officials and members of the public were established at all three major towns the day following the disaster.²⁷
- 4.13 The Boland Disaster Committee was established on October 8, 1969 at Ceres under the chairmanship of the mayor to centralise administration and to co-ordinate services and requests for assistance. The Committee comprised of representatives of all major towns with co-opted representatives from Prince Alfred Hamlet and the Ceres Divisional Council.²⁸
- 4.14 Towards the end of December 1969 members of the executive committee of the Inter-departmental Committee and members of the Boland Disaster Committee formed the Central Boland Disaster Committee to replace the Boland Disaster Committee.²⁹ It was established

To enable this committee (Central Boland Disaster Committee) to control the compensation payable to the public and enter into contracts, it was necessary to provide this body with some sort of legal status. After consideration it was decided to register this committee as a Welfare Organisation under the National Welfare Act. (National Welfare Act, Act 79 of 1965 section 19). A Constitution was drawn up providing for eight members to be appointed by the Minister of Social Welfare and the eight members of the then existing Boland Disaster Committee.³⁰

The Central Boland Disaster Committee's chief function was to distribute the compensation in terms of the formula decided upon by the Inter-departmental Committee. It would also be responsible for all moneys collected as well as contributions made by the Government.

- 4.15 The Inter-departmental Committee and the Central Boland Disaster Committee were responsible for the erection of 1 755 dwellings, a

home for 54 children, a large temporary home for the aged, and they housed approximately 100 000 people in a period of two years.³¹

4.16 Although the local authorities made efforts to overcome some of the problems they were not sufficiently staffed or prepared to deal with the consequences of a disaster of this nature. None of the municipalities at the time had civil defence contingency plans and led De Villiers to state that

... these people [local authorities] were caught on the wrong leg, and I maintain that even if one does not do much in the form of organising, even if you only contemplate emergencies and at least know within your community who is going to take the lead, who is to assume the authority, then you have progressed quite far, so that when it happens it does not occur for the first time then it can happen and you can deal with the matter to the best of your ability with the resources at your command.³²

5. PRESENT ORGANISATION

The district of Ceres is served by the Municipality of Ceres and the rural area by the Divisional Council of Ceres, the latter being considerably larger in area but less densely populated.

5.1 Municipality of Ceres

The Town Clerk is the chief of civil defence, and he is assisted by a deputy. The organisation consists of six divisions, each having a head, deputy head (municipal employees) and a committee consisting of town councillors and members from the east and west side of Ceres (divided by a river into east and west sectors for civil defence purposes).

The six main divisions and tasks are as follows:³³

5.1.1 Health and Emergency Care Services

.1 First aid

Tasks: Founding of first aid branches and training of

members; rendering of first aid in time of disaster; supplying of assistants for emergency hospital; storing of first aid supplies; and keeping of records of supplies and personnel.

.2 Emergency Housing

Tasks: erection of emergency housing; allocation of housing and keeping of records; census recording; control and supervision of emergency housing and camps; storing of supplies; and keeping records of material and personnel.

.3 Emergency Feeding

Tasks: supply of food; storing of supplies; erection and staffing of emergency kitchens; and keeping of records of supplies and personnel.

.4 Emergency Care

Tasks: establishing of emergency hospitals and treatment of patients; mass immunization (prevention of epidemics); clinic services; liaison with blood bank service; and keeping of records of supplies and personnel.

.5 Welfare

Tasks: to keep persons occupied; organising a library, film, and concert facilities; and keeping of records of equipment and personnel.

.6 Inspection Services

Tasks: food and meat inspection; analyses and destroying of dead animals; plague control; and keeping of records of material and personnel.

.7 Administrative Services

Tasks: recording of service task meetings; documentation of facilities; control of mortuaries; co-ordination of services; co-ordination of

information of tasks undertaken by other sub-divisions; and keeping of records of supplies and personnel.

- .8 The division keeps records of the following: health personnel (doctors, nurses, etc.); Noodhulpliga, St. Johns and Red Cross first aid associations; blood donors and their groupings; medical institutions and supplies; emergency facilities; facilities for local analyses; stocks for plague control; possible dangerous areas; library services; films; number of persons per family; and information on: hotels, boarding, houses, hostels, showgrounds, halls, caravan parks, camping grounds and caravans, gas and camping equipment supplies, shops (clothes, groceries, blankets), suppliers (produce, milk, meat) and cold storage facilities.

5.1.2 Electricity and Communication Services

- .1 Tasks: electricity services; to plan and maintain a communication system with the South African Police, South African Defence Force and surrounding towns; maintenance of workshops and conversion of vehicles.
- .2 Records kept by the division include: private contractors and their tradesmen; generators and machinery; telephone service; radio and radio hams (Defence Force, S A P, ESCOM, amateurs, private persons); homing pigeons; couriers, especially schoolboys, Voortrekkers; repair facilities; and tradesmen.

5.1.3 Traffic, Fire Fighting and Ambulance Services

- .1 Tasks: traffic control; supply of road signs and facilities; control of all fire fighting equipment; plan and control all fire guard-posts; educate public about fire hazards and prevention; and ambulance services.

- .2 Records are kept on all fire fighting equipment (including surrounding towns); vehicles that can be converted to fire fighting vehicles; water points and swimming baths; and ambulance and vehicles that can be converted.

5.1.4 Emergency and Rescue Service

- .1 Tasks: plan routes for evacuation and refugees; supply of transport; organise landing strips; controlling roads and bridges; burial of fatalities; rescue of trapped people; organise teams of welders; supply of water; and organisation of emergency sewerage disposal.
- .2 Records kept include: transport contractors; privately owned vehicles; planning and commanding of private vehicles; aircraft, helicopters and pilots; landing strips for aircraft, helicopters and pilots; contractors who can help with demolition; welding apparatus to open wrecks; emergency sewerage services; all water supplies; and emergency cemetery.

5.1.5 Secretarial and Financial Services

- .1 Tasks: gathering of emergency (disaster) information; conveying information to other committees; secretarial services and bookkeeping; procurement of supplies; and division of voluntary helpers.
- .2 Records kept include the following: available typists, telephonists and clerical staff; office accommodation and equipment; and essential supplies of fuel, etc.

5.1.6 Routine and Treasury Services

- .1 The main duties include the continuation of municipal services where possible.

5.2 Divisional Council of Ceres

5.2.1 In contrast to the municipal civil defence organisation the Divisional Council has brought about an organisation staffed almost entirely by the members of the community. An employee of the Divisional Council heads the civil defence organisation.

5.2.2 The area is divided into six regions. Each region has a committee and representatives of each committee form the civil defence committee for the combined region.

5.2.3 The civil defence plan has six divisions as follows:³⁴

- .1 Health Services. Tasks include that of first aid, plague control, erection and staffing of localities for the injured and burial of fatalities. Records kept include all nursing personnel, radiographers, vehicles, first aid equipment and possible venues for the injured.
- .2 Essential Services. Tasks include, inter alia, traffic control, planning of routes, supply of electricity and communication (radio and telephone). Records kept include that of personnel, equipment, vehicles, generators and persons in possession of blasting permits.
- .3 Transport and Evacuation Services. As the name implies the division is essentially responsible for transport and evacuation. Records kept include that of fuel supplies, personnel (pilots, navigators, mechanics), transport (heavy vehicles), landing strips, welding and cutting apparatus.
- .4 Housing and Feeding Services. Records kept are of supplies (kept by various members of the public), caravans, tents, shops and supplies, dairy supplies and personnel.

- 5 Fire Fighting Services. The Council does not have the services of a fire tender but the organisation makes use of extinguishers and mechanical pumps (used mostly for crop spraying). On farms situated at high altitudes fire watch posts are erected. Services include the dissemination of information, demolition of buildings and fire fighting.
- 6 Welfare and Leisure-time Utilisation Services. The essential task of this service is to keep the victims of a disaster busy and render emotional support. Records include that of personnel (teachers, insurance brokers, social workers, ministers), projectors and library services.

5.2.4 Each region has a member of its committee responsible for each of the six services. Thus in an event of local disaster the region will be able to meet its needs locally. Should the disaster strike the whole area the regions combine to form a combined service.

The Divisional Council of Ceres has established its own first aid organisation and training of members is done locally.

All members of the regional committee have copies of the plans indicating the persons involved with telephone numbers and addresses.

6. COMMENTS

- 6.1 The fact that the earthquake was followed by further tremors and that houses were severely damaged and deaths were recorded caused the communities to experience shock, despair and withdrawal. These symptoms of emotional imbalance were enhanced by the absence of previous training and preparation for the consequences of disasters.

Although the Civil Defence Act, 1966, was promulgated in 1966 none of the towns affected had any civil emergency plans.

The affected areas were paralysed. The Defence Force entered the area and took control of operations. According to Marais

The mere fact that the Defence Force entered the area in such vast numbers the day after the disaster gave the public a sense of security, and the realisation that they had the sympathy and could rely on the assistance of the Government. This did more for the morale of the people than any other assistance that could be given in those first few days.³⁵

This statement cannot be described as being entirely true. Taking into account the close form of relationships which predominate in such a community the "invasion" of a "foreign" force to take complete control must have had an important bearing on the emotional condition of the areas' inhabitants. Prior training and a sense of preparedness would have made inhabitants more secure.

6.2 The role that the Defence Force fulfilled was undoubtedly important. However, present organisations are locally organised to fulfill most of the tasks undertaken at the time by the Defence Force. Were South Africa engaged in a combat situation the military manpower would not have been available. It is on this premise that local authorities are requested to organise their programs.

6.3 While the earthquake resulted mainly in damage to buildings the local authorities were not expected to fulfill the role of a State department concerned with housing. Authorities can however play an important part in the supply and erection of temporary housing. The following steps based on experience were adopted by the Municipality of Ceres.

6.3.1 The present organisation, if the need arises, will receive tents en masse and be administratively accountable to the supplier and administratively responsible for their allocation. This development is as a result of the fact that tents were issued by the Defence Force without a suitable system of

recording and when they withdrew from the area the local authority was held responsible for all tents issued. Records were not correct and as result some tents could not be accounted for.

6.3.2 A further development based on the experience of the earthquake was the formation of a division of welfare. The experience was that persons affected showed signs of emotional break-down and apathy.

6.3.3 Furthermore, the importance placed on comprehensive administrative services is based on experience. There was little or no control of equipment, personnel and vehicles. Records of meetings and decisions taken (often relating to considerable sums of money) were not effectively kept.

6.4 An interesting difference between the two local authorities' plans is that of the inclusion of members of the population. Although it is difficult to measure civil defence output effectively without experiencing a disaster the opinion might be expressed that one of the failings of the plan serving the Municipality of Ceres is the lack of greater public inclusion in such vital areas as fire fighting, ambulance services and traffic control. The Divisional Council plan makes for provision of total inclusion and training of members of the community.

6.5 According to information as mentioned in 10.4 various committees were established. Considerable changes with regard to committees ensued to improve co-ordination, command and control. It is however noteworthy that the last and probably most important committee, The Central Boland Disaster Committee (The committee registered in terms of the National Welfare Act enabling the collection of funds et.al.) was established nearly three months after the disaster. A committee of this nature should be established immediately after a disaster to draw upon the goodwill of persons. There are indications that contributions to disaster funds decrease proportionately with the lapse of time (see 4.8.13).

7. NOTES

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11

EVALUATION

CONTENTS

1. INTRODUCTION
2. DISCUSSION
3. COMMENTS
4. NOTES

1. INTRODUCTION

- 1.1 An evaluation of a system or an organisation in terms of its structure and function requires an objective estimation of worth or a quantitative comparison of values. In order to do so effectively unlimited access to information pertaining to and a thorough understanding of the system or organisation would be prerequisites. The author did not have unlimited access to information and the understanding, albeit thorough, relate to what the author was exposed to - a partly completed system and developing organisations. As a result, this evaluation is primarily concerned with South African civil defence, with particular reference to the Cape Peninsula in its present stage of development. It follows that in the absence of tangible evidence or activity - projected civil defence development and activity (in some cases mere conjecture) can be evaluated only somewhat arbitrarily.
- 1.2 Following the presentation of material in each chapter, comments pertinent to the content of the chapter have been made. While these comments serve as an evaluation of the material dealt with, the contents of this particular chapter deal mainly with the evaluation of the combined civil defence organisation - a combination of the material absent from and contained in the preceding chapters. It therefore follows that such comments serve to augment the evaluation contained in this chapter and should be read in conjunction with this evaluation.
- 1.3 The parameters of this research are narrow in comparison with the extensive ambit of civil defence in South Africa. Material excluded from previous chapters (because of its absence in civil defence practice or because of its greater relevance to civil defence as a whole) has been included in this chapter. In so doing the parameters have been broadened to allow for effective evaluation in a much broader civil defence context. This material also serves to support the author's views and recommendations.
- 1.4 To facilitate the evaluation of South African civil defence organisation and administration, the subject has been dealt with in parts. It should however be borne in mind that compartmentalising

the subject in this manner will result in some repetition as issues dealt with in one part may be of relevance to another. This evaluation should be seen to be the sum total of the comments in the preceding chapters and the issues which are dealt with one by one in the discussion.

- 1.5 Apart from the merits of the South African civil defence organisation and administration, mainly dealt with in the preceding chapters, certain weaknesses, limitations and anomalies exist. It is these weaknesses and anomalies that the discussion is primarily concerned with. While these weaknesses are mainly related to the implementation of civil defence at the local level, they are not exclusive to this level. The more serious weaknesses or limitations are assessed and some measures are discussed which could be adopted in order to improve the system.
- 1.6 As early as the Second World War a call was made to the Government to give a lead in the development of civil defence (see 2.4.2). The Government recently gave the lead and introduced comprehensive civil defence legislation which gave rise to the present civil defence organisation in South Africa. While the civil defence infrastructure provided by the public sector is sound, and compares favourably with that of other countries, many aspects of civil defence in South Africa are in need of urgent attention and warrant further discussion.
- 1.7 The comments contained in the preceding chapters and the discussion contained in this chapter serve to portray the author's understanding, interpretation and analysis of the subject in question.

2. DISCUSSION

- 2.1 A confused and varied interpretation of civil defence is one of the more important restraints on civil defence growth. Throughout the world civil defence is linked primarily to warfare, particularly nuclear warfare. In South Africa very little emphasis is placed on conventional and nuclear warfare, whereas considerable emphasis is placed on unconventional warfare - such as urban terrorism.

During the Second World War civil defence was known as the Civilian Protective Services. During the civil unrest of 1976, White armed vigilante groups were formed

... in response to civil defence meetings called by local authorities ... these armed civil defence groups patrol schools, post offices, electrical sub stations and shopping centres in many of the White residential suburbs.¹

Any form of armed action is specifically excluded from civil defence by law (see 1.3) but yet in practice the public is often led to believe otherwise. In an article on the woman's role in armed defence Van Wyk² clearly identifies knowledge of weapons with civil defence preparedness. The former Department of Information's publication, SA Digest, carried an article on the Honeydew Civil Defence Unit in which it was stated that the Unit had its own shooting range "where hundreds of members have been taught to use a firearm properly".³

In an attempt to rid civil defence of its "armed action" connotation the local heads of civil defence decided in 1977 to change the name to "civil emergency services".⁴ With the implementation of the new legislation the term civil defence was re-adopted, since the Government required that the term "civil defence/burgerlike beskerming" be uniformly applied throughout the country. The retention of the term "civil defence" in the legislation was apparently to achieve parity with similar terminology being used in other countries. "Burgerlike beskerming" translated means "civilian protection" and not "civil defence". The advisability of retaining a term merely to be in keeping with international nomenclature (at the expense of confusing the public) is questionable.

The difference between emergency service operations and civil defence activity is nebulous. For example, the recent civil defence exercise held in Cape Town (see 8.7.15) was not civil defence in terms of the definition (see 1.3). The public, however, was led to believe otherwise.

One of the reasons for the reported apathy among the non-White population is the notion that civil defence is a form of armed

defence - against them.

- 2.2 Apathy toward civil defence is widespread and not necessarily related to racial factors. This is partly to blame for the tardy growth of civil defence. The cause of this apathy has been the source of constant query.

The infrequency of major disasters in South Africa particularly in the Cape Peninsula undoubtedly serves as the foundation for the public's neglect of civil defence. But then so does an absence of knowledge of civil defence or a confused understanding of the subject.

In a nation-wide study conducted in the United States of America in 1972 it was concluded that there would be little or no difficulty in mobilising large numbers of Americans to assist with civil defence activities.⁶ It could be argued that a similar situation exists in South Africa, although it may be pointed out that certain constraints exist which militate against public participation.

In terms of the author's definition (see 1.3.5), civil defence cannot be constituted without the participation of members of the public. The Director of Civil Defence, South African Defence Force, Brigadier C. Muller states that (author's underlining)

Public involvement is of vital importance for the effective functioning of any civil defence organisation and the role of the civilian volunteers can therefore not be over-emphasised . . . the organised emergency services of a local authority may prove inadequate to counter the consequences of wide-spread disaster. This may be the case particularly as far as our larger towns and cities are concerned. It is therefore considered imperative that civilian volunteers be recruited and suitable trained with a view to supplementing municipal resources in the event of a major catastrophe . . . It is therefore the duty of each and every citizen to display an interest in the preparatory civil defence planning and to make a positive contribution thereto.⁵

In the light of the above-mentioned sentiments which actively encourage public involvement, it is ironic that the government (all tiers) discourages participation, albeit indirectly. As commented on in the chapter on legislation (see 4.8.6) the legislation itself is a

deterrent to public participation. The Department of Health, Welfare and Pensions has not attempted to involve the welfare community or its own staff (see 6.7.11 and 6.7.12). The Youth Preparedness Program conducted at schools is not as enthusiastically implemented as it could be (see 7.8.2). At this level of development a strong identification with civil defence can easily be fostered. The City Council of Cape Town's civil defence policy would appear to discourage active involvement (see 8.7.5).

The Town Clerk of Pretoria has stated that apathy is one of the greatest problems in civil defence. In an endeavour to find the answer he correctly points to the fact that members of the public can hardly be expected to be enthusiastic and committed when officials are not.⁷ From the Cape Town civil defence membership of 8 500 during the War and the 12 members at present; the 321 serving the Divisional Council and the difference in policy of the local authorities re public participation, it could be concluded that the answer lies largely with the seat of government rather than with the governed (see 8.7.5 and 9.7.15).

The large number of active volunteers involved in a variety of non-public institutions and the dearth of numbers involved in public institutions could lead to the conclusion that the public sector discourages participation. Comaroff⁸ upholds a widely held view that the welfare legislation introduced in 1978 mitigates against volunteer participation in South African welfare services. Hospitals, schools and the State welfare services, to name a few, hardly use volunteers - areas where volunteers are used with great benefit in many other countries. In England, for instance, the National Association of Leagues of Hospital Friends, which receives a small grant from the government, represents nearly 100 000 volunteer working members.⁹ In the State of North Carolina, United States of America for instance, the State Government created an office of volunteer services to recruit, encourage and train volunteers for a variety of services. Private organisations such as Life Line, the National Sea Rescue Institute and the various surf life-saving clubs are not too dissimilar from the raison d'être of civil defence. These organisations however are rarely short of volunteers and apathy is non-existent.

- 2.3 It is an incontrovertible fact that South Africa and the Cape Peninsula in particular, face the possibility of a major disaster, which clearly justifies the existence of a civil defence system. It is difficult, however, to predict or determine the type, frequency or the intensity of such a disaster. In spite of this difficulty the stage has now been reached where authorities should no longer wait for a disaster to occur (this has been the case for too long - see 2.4.1), but should anticipate the threat with planned activity. Each community should have a thorough knowledge and understanding of such a threat and its dynamics at the heart of its civil defence activities.

In spite of the world's preoccupation with warfare, increased terrorism in South Africa - with a concomitant sophistication of weaponry - and the fact that a nuclear power plant has been established in the Cape Peninsula, it is ironic that not a single official civil defence shelter exists in the Peninsula (see 7.4.8). A counter argument to the establishment of shelters has frequently been that of costs involved. According to Lunt,¹⁰ however, civil defence shelters can be incorporated into new buildings without departing radically from normal building practice (he quotes an average increase in building costs of only 1,9 per cent).

A much more serious threat which accompanies most disasters, namely that of fire, has also been neglected (see 7.8.4). That the public could construe this lack of action by the authorities as a "no risk factor" is not difficult to conceive, and in so doing justify their non-participation in civil defence.

- 2.4 Apart from the fact that South African civil defence differs markedly from the rest of the world in terms of the emphasis placed on the threat of warfare (see 7.4.8 and Addendum 2) many similarities do exist. A major similarity between civil defence in South Africa and other countries, notably Western ones, such as Australia, New Zealand and the United States of America, is the division of responsibility between the various tiers of government (see Addendum 2). This sensible division between central, provincial and local government allows for central co-ordination, standardised policy and procedure, and local participation at levels commensurate with local needs and conditions. It serves as a

logical extension of the regular services provided. This division is clearly outlined in the South African civil defence legislation. The legislators, aware of the diversity of circumstances prevailing at the various local authorities throughout the country, wisely drafted the legislation in such a manner that local authorities can exercise much freedom in the conduct of their civil defence activities. Apart from the comments contained in the chapter on legislation, such legislation is comprehensive; clearly distinguishes between roles and responsibilities and ensures standardisation and co-ordination (see 4.2, 4.4 and 4.5).

- 2.5 Civil defence correctly enjoys attention at the highest level of executive government, namely the Cabinet. Apart from the important advisory bodies (see 1.5) the South African Defence Force fulfils a vital role in South African civil defence. In the absence of disasters the SADF has important but limited responsibilities (see 5.4). Civil defence policy is based on the tenet that the SADF cannot occupy an active role in civil defence activities because of its primary responsibility of defence. It is difficult however to conceive that, in the absence of a full scale mobilisation for defence purposes the SADF will not repeatedly be called upon for civil defence operational purposes.

In view of the extent to which emphasis is placed on the threat of conventional warfare it could be argued that the chances of the military being fully committed to defence are remote. This is anomalous in the light of comments contained in 5.6.10 and 5.6.11.

Similar to other countries, the military has traditionally been part of civil defence operations (see Addendum 2 and 5.2). The SADF is well suited to conduct civil defence activities because of its operational capabilities. It has a clear command structure, an extensive communication network, equipment, support services and manpower (see 5.3 and 5.4).

An analysis of pre- and post-disaster military involvement in disaster operations (principally the Omaha Tornado on May 6, 1975) reveals that while military activities, working with civil authorities, were generally effective, they could be substantially improved upon if the military were more involved in pre-disaster

planning and training.⁹ This could serve to support continued SADF involvement and possibly increased involvement, particularly in the absence of viable local civil defence development (see 5.6.7 and 5.6.8).

- 2.6 Civil defence in the Cape Peninsula is somewhat like a patchwork quilt which has been rendered dysfunctional by the absence of down. While a wide variety of civil defence related parts are loosely patched together the substance of the service in terms of rationalisation and co-ordination of services is largely absent. While the City Council has superb equipment and virtually no members (see 8.7.5 and 8.7.7) the Divisional Council has the members but requires more sophisticated equipment (see 9.7.7 and 9.7.15). The Emergency Services Centre operates the ambulance service (while the City administers it - see 7.7.2) and medical zones geographically similar to the Divisional Council's civil defence zones but dissimilar from the City's civil defence zones (see 8.4.14 and 9.4.12). The tasks of the City's Care and Comfort Section (also that of the Divisional Council) are similar to the normal operations of the Department of Health Welfare and Pensions, yet both function independently of each other (see 6.4 and Addendum 1). The City and Divisional Councils both operate two fire services which are geographically bound by tradition, in spite of being adjacent to one another. In view of the inadequacy of the fire services in general (see 7.8.4) it is inconceivable that the numerous fire services operated by the Metropolitan local authorities all operate independently of each other. Among other services, the various traffic forces also operate independently.

Civil defence, in terms of the author's definition implies that civil defence activity, where possible, should be an extension of an organisation's normal function. The important consideration being that the organisation is operational, albeit to a lesser extent than required during a disaster, and can become operational in terms of civil defence with the minimum of effort. Therefore civil defence must make much greater use of the rationalisation of services and improved co-ordination of existing services.

It could be assumed that the greater the geographic spread the less the risk of disaster for the area as a whole is. For instance, in the event of a nuclear accident at Koeberg, Milnerton and Cape Town will be at greater risk than Simonstown. The Northern Suburbs are in greater danger of an aircraft disaster because air traffic is largely routed over this territory. It follows that in the event of an aircraft disaster, for instance, the southern suburbs civil defence could assist that of the northern suburbs and so on. It would therefore be to the advantage of all local authorities in the Metropolitan Area to pool their resources to develop a metropolitan civil defence service and in so doing greatly enhance the Cape Peninsula's civil defence capability. The Cape Peninsula is however unique in terms of its emergency service delivery and the operation of such a combined service will not be without difficulty.

A call by De Villiers¹² in 1959 for a combined civil defence service for the Cape Peninsula envisaged a two-fold approach. The local authorities were expected to pool resources for fire fighting, rescue work, evacuation, provision of essential services et al. The CPA Hospital Services were expected to pool resources with the medical and nursing professions and first aid societies to provide rescue teams, reception for and treatment of casualties and reception for the homeless.

These proposals are not dissimilar from a proposed co-ordination of civil defence services presently being contracted by the Metropolitan local authorities. The main objectives of the contract are to provide for a Regional Chief of Civil Defence to render unified command and control; to enable local authorities to render mutual assistance; to establish and maintain a data bank; to co-operate in terms of planning and to establish communication links.¹³ This contract meets all the requirements for the proposed combination of civil defence activities (only in event of disaster) and the City of Cape Town is well placed to control and co-ordinate the service (see 8.7.13). While the implementation of this contract will undoubtedly ensure a considerable improvement in overall civil defence capability and meet the needs of the present structure of participating local authorities, the operational efficiency that will flow from this arrangement cannot be

considered optimal for the following reasons. Firstly, the role of the Emergency Services Centre (see 7.6) is such that duplication and diversification of command may occur. Secondly, the co-ordination of emergency services in the event of a disaster cannot equal the operational efficiency of a unitary emergency service.

Parr, in a study on the adequacy of disaster plans and preparations in ten disasters, concluded that

Most of the problems of disaster originate in the lack of co-ordination among the many groups and organisations each of which is viewing and attempting to meet the needs of the disaster in terms of its own perspective and capabilities. The immediate problem in a disaster situation is ... deficiencies of inter-organisational co-ordination.¹⁴

In the Cape Peninsula no large-scale disaster operation has even taken place with the result that co-ordination has never been tested. It is difficult to conceive that in the absence of a unified command and control structure, the activities of the Emergency Services Centre, the various local authorities and a host of other related organisations will be well co-ordinated. While the Emergency Services Centre co-ordinates and controls emergency services, albeit informally, as a matter of daily routine, its specific role and function in terms of the proposed Metropolitan local authorities civil defence service (Metro c.d.) is unclear. It is not inconceivable that two co-ordinating and controlling structures (Emergency Services Centre and Metro c.d.) could emerge in the event of a disaster. Such a situation will compound existing problems, as the rescue squad controlled by the Emergency Services Centre and the fire services controlled by Metro c.d. should, by the very nature of their tasks, work closely together under one command.

The amalgamation of the local authorities to form a greater municipal council similar to that of London, would undoubtedly rationalise and improve services. Similarly, the benefits that would accrue from the formation of a unitary metropolitan emergency service which would include the Emergency Services Centre; fire, ambulance, traffic and civil defence services will be considerable - similar to the benefits experienced by the CPLA Ambulance Service (see 7.7).

In the absence of the proposed amalgamation of municipalities (presently only a remote possibility), serious consideration could be given to the amalgamation of the Peninsula's fire and traffic services, to form operations similar to the CPLAAS. The greatest threat during a disaster is that of fire and injury. A combined fire, ambulance (rescue) and traffic service will greatly enhance the Peninsula's emergency capability and as a result, its civil defence preparedness. Such a service could constitute a considerable force of expertise, equipment and operational efficiency.

According to Dynes, Kreps and Quarantelli, in a study of more than 100 disasters, "co-ordination is more crucial than strong leadership at times of disasters, but this should not be diverted or controlled from outside the stricken area".¹⁵ It follows that the Emergency Services Centre, in terms of its raison d'être, its vehicles and communications which are specially designed for on-site management; its present control and co-ordination of the CPLAAS; and its central location is more suited to control and co-ordinate such a service than the City is (see 7.6.10 and 7.7.4).

An important start toward improving and rationalising services would be an inter-agency sharing of information. An enormous amount of information is manually processed and stored on data cards (see Appendix 2). The employment of a computer with all major agencies having feed-in and recall facilities would serve to save labour, standardise recording and enhance operational efficiency (see 7.8.7, 8.7.12 and 9.7.11).

- 2.7 While the SADF, by virtue of its function has the operational capability to mobilise forces and converge on a disaster area in the minimum of time other Departments have not developed such a capability. It is conceivable that smaller municipalities' administrative processes may be halted by severe disasters. Emergency administrative teams - staff conversant with local government administration - could be provided by the Provincial Administration to ensure administrative order. Similarly, the Department of Health, Welfare and Pensions should have a trained team and pre-determined modus operandi to meet the needs of a disaster stricken community. During a disaster there is no time to develop administrative systems (see 6.6.11).

As a result of its nebulous policies, South Africa has a history of poor disaster fund management (see 2.4.4, 4.8.11, 4.8.13 and 10.6.5). A clearly-formulated policy to ensure co-ordinated and effective collection and distribution of funds, clothes, food and other gifts is required. It is noteworthy, that while members of the public are repeatedly called upon to make contributions during disasters, funds are almost exclusively government controlled and there is little or no participation by the donors or by the governed (see 4.6.6 and 11.2.2).

- 2.8 On February 4, 1975 China correctly predicted an earthquake which registered 7,3 on the Richter Scale.¹⁶ In the United States of America hurricane and other disaster predictions are commonplace. In South Africa the prediction of disasters has seemingly received little attention, probably as result of the infrequency of major disasters. Floods however claim the lives of many every year. Adequate civil defence preparedness should therefore include some measure of disaster prediction, whether conducted by civil defence agencies or other organisations such as the Weather Bureau or university research teams.
- 2.9 Effective prediction of disasters would imply an effective warning of the public of the dangers. The Peninsula's warning system is mainly dependent on the mass media, particularly the radio. This form of exposure however varies tremendously in terms of time, day and season. It is ironic that much emphasis is placed on coping with the results of a disaster but not on prevention by early warning. The Peninsula does not possess a siren nor do links with major buildings and factories exist to warn the public via in-house communication systems. According to Quarantelli and Taylor¹⁷ the threat and the cues used to determine the threat should at all times be conveyed to the public. More trust, which results in positive action is placed on such warnings. Dynes and Quarantelli state that

Information about dangers should be disseminated and not withheld because of a fear that people will panic. Individuals can deal with the truth of certain dangers more adequately than they can deal with misinformation which is later contradicted by experience.¹⁸

Civil defence and other authorities should note the above-mentioned sentiments as a reluctance to fully inform the public leads not only to an inappropriate response (for example, disbelief after repeated false information), but also to the emergence of rumour - often with dire consequences.

- 2.10 A rumour analysis by Abe¹⁹ in the Niigata earthquake (Japan 1964) revealed that rumours can be partly checked by providing early control. Further, it was found that 85,1 per cent of the sample was moved by rumour, 52,6 per cent displaying unquestioned belief in the rumour.

In opposing the clause seven censorship provision in the Defence Amendment Bill, Senator Winchester stated in the Senate that "during internal unrest, rumour could do more harm than bad news and panic would result".²⁰ In the absence of a rumour control centre in Cape Town during the 1976 civil unrest a local daily established a "Fact not Rumour" answering service. In its first five days of operation it received over 2 000 calls, some from as far as Johannesburg and Port Elizabeth - an indication of the large volume of rumour circulating.²¹ While this service was very valuable it could be asked whether a civil defence agency, with all the facts at hand, would not be better suited to this type of activity.

The Peninsula's population could be best served if the civil defence authorities payed more attention to the planning and dynamics of rumour control centres - and not just providing media releases. Rumour control centres are a recent innovation and exist in large numbers in one form or another in the United States of America and in the United Kingdom. In a study of such centres, Ponting²² found that in addition to facilitating the tasks of other emergency services and providing psychological relief, centres facilitated social control and mediation, particularly during civil unrest - one of the more important threats facing the country (see 3.3.2). Good civil defence planning provides for means of obtaining accurate information and the undistorted dissemination thereof to all interested parties.

- 2.11 One of the major weaknesses of the civil defence service is the absence of an effective counselling service to deal with the psychological trauma which often results from disasters. It is ironic that this area is neglected, particularly in view of the authorities' repeated warnings of a "total onslaught" - not only in the military sense but also in the psychological sense. Many studies have been conducted by Niederland, Dorsey, Meerloo, Lifton, Klein, et. al. to determine the psychological impact of massive disasters such as war, the destruction of Hiroshima and the Holocaust. These and a number of other studies of natural disasters indicate that disaster victims often experience psychological trauma.

An objective method of testing was used to test the psychological dysfunction of 675 evacuees from Darwin (Cyclone Tracy, Australia, 1974). Results indicated that, initially 58 per cent suffered dysfunction; 41 per cent at ten weeks and 22 per cent at 14 months (an Australian general population control level).²³ In 80 per cent of the 625 survivors of the Buffalo Creek Disaster (collapse of a slag waste dam, United States of America, 1972) traumatic neurotic reactions were found. Feelings of impotent rage, survivor shame, unresolved grief and hopelessness lasted for longer than two years and gave rise to a symptom complex - the Buffalo Creek Syndrome.²⁴ This disaster had another sequel - for the first time persons not present at the scene of the disaster were awarded compensation for mental injuries. In a litigation initiated by the survivors, \$6 million of the \$13,5 million awarded served to compensate for psychological damages.²⁵

In the twelve months which followed the Brisbane floods (Australia, 1974) 695 "flooded" and 507 "non-flooded" persons were studied. The number of visits to medical institutions and personnel were significantly higher in the "flooded" group. This group displayed persistent psychological problems such as irritability, depressed mood, nervous tension and an increase in sleeping tablet consumption. An important finding was that the incidence of psychiatric symptoms was directly related to dissatisfaction with help received.²⁶ Similarly, a study of 632 child victims three months after the Skopje Earthquake (Yugoslavia, 1963) indicated

that almost 70 per cent displayed some form of disturbed behaviour. The findings indicated that many of the behaviour problems could have been alleviated had there been more organised daily care, communication with parents and staff counselling.²⁷

Apart from the traumatic effects of the afore-mentioned disasters, the trauma associated with acts of terrorism is beginning to emerge. Recently the so-called "hijack therapy" was pioneered by the Dutch to meet the trauma associated with acts of terrorism. During the Bovensmilde and Groningen hostage dramas (The Netherlands, 1977) officials set up treatment centres where psychiatrists and social workers counselled hostages and their families, who experienced highly emotional outbursts and deep depression. The Dutch psychiatrist Jan Bastiaans, while emphasising the importance of immediate counselling singled out the treatment goal as "We must make them talk and cry immediately and unload all fears and aggressions."²⁸

As mentioned in 6.7.6, 6.7.7 and 8.7.9 no organised disaster counselling service exists in spite of the availability of facilities and personnel. Professional social workers are by virtue of their training and relatively large numbers, compared to psychologists and psychiatrists, well suited to form the core of a disaster counselling service. Social work associations could be approached to provide basic training in disaster therapy. A national register for disaster counsellors, which may include lay counsellors such as the clergy and others, should be established.

While studies show that social workers have an important task in assisting disaster victims to return to normal social functioning, suitably trained lay counsellors are just as important (particularly in the absence of professional services - usually severely strained during a major disaster). A specially designed crisis intervention program was successfully conducted in the wake of the Agnes Flood Disaster (Wyoming Valley, United States of America, 1972). Employing mainly indigenous, specially trained non-professionals, it demonstrated that non-professionals were capable of providing basic crisis intervention to disaster victims.²⁹ In addition to the large number of social workers in the Peninsula, Life Line has 185

registered volunteers who are involved in non-professional crisis counselling.³⁰ These persons could be trained, co-ordinated and effectively used for disaster counselling (see 6.7.7).

- 2.12 The benefits of an early warning system can only be realised if the population it serves are adequately prepared to respond. It has often been reported that in spite of adequate disaster warnings people die - mostly because of a lack of appropriate action. Panic by less sophisticated passengers which resulted in the collapse of emergency exit procedures on board a Saudi Arabian Tristar airliner (Riyadh, 1980) caused the death of 301 occupants.³¹ Many similar examples can be cited to prove that the absence of training to deal with emergencies often results in death and injury.

The population should be taught the dynamics of disasters. Every member of the public should be taught the appropriate action to be taken in the event of every possible disaster. This can be done by means of the media, lectures, demonstrations, and so forth. Regularly televised simulated disasters showing the appropriate action will be of considerable benefit.

Apart from the various civil defence training areas fire and first aid training must be singled out for special attention. As previously pointed out, adequate fire fighting and first aid are very important components of the civil defence service. To begin with, more attention should be given to fire and first aid training at schools through the Youth Preparedness Program (see 7.3.3). While care should be taken not to use this program as a front for fostering a disaster or conflict neurosis (as can easily happen - particularly during prolonged civil unrest) young people should be encouraged to identify with the importance of civil defence. Further, all National Servicemen should be trained in fire fighting and first aid (see 5.6.4).

Considering that 7 536 people died in South African road accidents during 1980, attention should be given to the possibility of training drivers in fire fighting and first aid.³² Many lives could be saved on South African roads annually if more people were trained for emergencies. In Belgium all vehicles must be equipped with a

fire extinguisher and drivers are trained and tested in its use.³³ Fire and first aid training and the possession of an approved fire extinguisher and first aid kit could conceivably serve as prerequisites in obtaining a driver's licence. Although first reactions to such a scheme will undoubtedly be negative (as with seat-belt enforcement) the primary benefits in terms of lives saved and the secondary benefits in terms of civil defence preparedness (preparing for normal emergencies improves preparedness for major disasters) will be considerable. The law in Austria requires that at least one in every five office or factory employees be trained in first aid.³⁴ The introduction of a similar ruling which includes fire fighting is feasible seen in the light of the similar "Heart 5-1" project (see 7.7.8). If one in every five residents of Cape Town is trained in fire fighting and first aid by methods enumerated above, the City of Cape Town's policy of "look after yourselves at home" becomes much more acceptable (see 8.7.5).

- 2.13 In the absence of this ideal, a pragmatic approach toward meeting the Peninsula's fire and first aid needs is required. The establishment of an ambulance, fire and traffic reserve or volunteer corps should be mooted. In a study on the different types of organisations in disaster responses and their operational problems, Dynes and Quarantelli³⁵ distinguish between formal emergency organisations with full-time operational staff such as a fire department; and part-time, volunteer and latent emergency organisations such as a civil defence corps. The latter type of organisation undergoes most stress during a disaster because of changes in its structure (changes in authority hierarchy), function (latent tasks) and personnel (new members); and difficult social arrangements (non established inter-personal relationships). This study suggests that a reserve corps actively serving with, and effectively becoming part of the formal organisation, will be better positioned to deal with disasters. The New Zealand Fire Service makes extensive use of its Volunteer Fire Service which consists of volunteers who undergo training during the evenings and at week-ends and are fully operational. In South Africa, the South African Police Reserve has been functioning for some years with considerable operational efficiency. Volunteers can receive similar training to the Peninsula's ambulance officers (advanced

first aid), firemen and traffic officers. As these services are often short of personnel the active service of volunteers will surely be welcomed. Under such conditions structural, functional, personnel and social changes are minimised. By building up large reserves of such volunteers the Peninsula's civil defence operational capability will be considerably enhanced, particularly if the fire and traffic services were amalgamated and co-ordinated by the Emergency Services Centre as previously discussed. One of the main problems of maintaining civil defence members' interest due to the lack of operational activity or exercise is effectively overcome by active duty with the services.

- 2.14 As mentioned, one of the major problems in maintaining civil defence interest is that its function is latent. A sports team could hardly be expected to maintain interest if it were not granted an opportunity to exercise its sport. But civil defence officials face a major difficulty as the simulation of disasters is often difficult and very disruptive of normal activity. At the same time however, the lack of operational activity gives rise to another serious problem - the inability to test emergency plans. Often irrational responses during mass disasters conflict with rational disaster plans. Plans need to be regularly tested and amended if need be.

While this problem will probably never be satisfactorily resolved, local authorities could employ some effort and initiative toward doing so. Authorities could periodically designate serious accidents and large fires (normal emergency operations) as major disasters and mobilise civil defence forces. In doing so careful consideration will have to be given to the problems that will undoubtedly arise in such as exercise. While this is not an ideal arrangement it is the most realistic way of testing plans and mobilising forces. Civil defence teams could, similar to surf life-saving clubs organise regular competitions. Similarly, schools could compete with one another.

The members of the civil defence communications, transport and maintenance sections could be periodically allowed to accompany or assist municipal staff in their daily tasks (see 8.4.5 and Addendum 1). In so doing they will become familiar with personnel,

the modus operandi and the municipal resources. Members of the care and comforts section could be mobilised to provide food and shelter for a large number of people. This could for example be done in liaison with a youth group desirous of a week-end camp - the youth group will undoubtedly contribute to costs. Alternatively, a mayoress's charity fund could be used to provide a week-end camp for needy youth or the aged and in so doing provide a civil defence exercise in housing and feeding. Many more ways of keeping apathy at bay and the public involved are possible should authorities really desire same. For 1981 the City of Johannesburg has planned 185 activities for its 800 Corps members.³⁷

- 2.15 Since the War, civil defence has largely suffered from the "home guard" image - an elderly group of persons defending the home front. In the Peninsula very little has been done to dispel this image. Very few, if any young persons are involved in civil defence whereas other emergency services such as the National Sea Rescue Institute are almost exclusively comprised of young persons. It follows that if civil defence in the Peninsula is to develop, a new image is required. It would be expedient to embark upon a major public relations exercise - civil defence must "go public" like the "Heart 5-1" project.

The suggestion by Van Rooyen³⁸ that the Government declare a civil defence year similar to "Health Year 1979" could serve as a start. This project would present civil defence authorities with an ideal opportunity of informing the public and recruiting members. The appointment of an independent public relations agency to conduct the campaign could be considered.

Greater participation by the private sector is required, as its tremendous public relations capability could be put to good use. The private sector could be used to sponsor competitions, pay for advertising, equip poorer communities et. al. - all in such a way that they derive benefit from the publicity. Further, organisations which stand to lose much in the event of major disasters such as insurance companies could support preventive and training programs - their sponsorship of the Fire Protection Association of

Southern Africa is a good example. The private sector could be used to a greater extent to encourage its staff to become involved in civil defence by arranging in-house activities and so on.

Consideration could be given to authorising local civil defence corps to collect funds in terms of the Fund Raising Act, 1978. In this way corps members will be able to advertise its cause by conducting various fund-raising activities. Such activities will foster relationships and provide funds for equipment and emergency supplies.

- 2.16 It would appear that civil defence authorities lack the knowledge of how disasters could affect crowd behaviour, community responses and social change. While such knowledge may initially appear to be of less importance the implications for civil defence activities should not be under-estimated.

Very often emergency operations are hampered by crowd behaviour. Fire teams in the Peninsula report that they regularly encounter difficulty with crowds causing delays in reaching the scene of the accident or fire.³⁹ A knowledge of collective behaviour is of particular consequence to civil defence authorities, particularly in the event of civil unrest when emotions often border on flash point and mass emotional outbursts. Smelser⁴⁰ has identified six necessary conditions or determinants for collective action or an outburst. They are structural conduciveness, structural strain, a generalised hostile belief, precipitating factors, a mobilisation for action and particular reactions of social control agencies.

Disasters have a tremendous disruptive impact on community and organisational functioning. Many studies have been conducted to determine the dynamics of varied community social system responses to disasters. During the Buffalo Creek Disaster it was found that the survivors suffered from collective trauma - being reflected in their loss of communality. The primary nature of relationships in this community and traditional bonds of kinship made the community stronger than the sum of its parts. It was found that survivors had great difficulty in finding personal

resources to replace direction and energy previously found in the community.⁴¹

In a study on the presence and absence of community conflict during disasters Dynes and Quarantelli found that while varying considerably, it was relatively absent in the emergency period, relatively present in the post-emergency period and both functional and dysfunctional.⁴² The implications of such a finding are of considerable consequence to effective planning for civil defence operations.

Similarly, various studies have indicated that the long held and popular images of disaster, which often form the basis of disaster planning, are almost totally incorrect.⁴³ It follows therefore that the natural processes which form a community's response to disasters should be carefully considered. Dynes points out that

Disaster planning should be made in the context of these natural processes which a disaster event sets off, and it should facilitate these processes, not impose an impossible model of human and technological efficiency which has little relationship with reality.⁴⁴

- 2.17 From the discussion presented thus far it could be concluded that much can be done to improve the overall service. One of the main problems in so doing is the general lack of knowledge about the dynamics of disasters and, as a consequence, the dynamics of civil defence. This problem can be partly offset by the establishment of a civil defence research centre in South Africa.

Since the Sixties, the number of social and behavioural scientists interested in disaster research has increased considerably; the standard of publications in this field has dramatically improved; and a number of journals and newsletters devoted to the subject have made their appearance.⁴⁵ These developments have resulted in a variety of international conferences, meetings and discussions on the subject, as well as a wealth of research findings.

The importance of continued research and the utilisation of material produced on disasters cannot be over emphasised. As

disasters in South Africa are infrequent the experience and knowledge gained by other countries should be put to use. As a result of South Africa's unique civil defence local research becomes all the more important.

The implications of increased knowledge are often profound. For example, the study of the Darwin evacuees (previously cited), also indicated that the victims who remained in Darwin experienced less disruptive and psychological effects than did those who were evacuated for the duration of the study.⁴⁶ These findings have important implications for civil defence planning as evacuation, particularly of small communities, is always a distinct possibility. A variety of publications, detailing various forms of disaster treatment and disaster theories are available. Garb and Eng⁴⁷ have for example formulated the chronology of a disaster as follows:

Threat > Warning > Impact > Inventory > Rescue >
Remedy > Recovery.

Undoubtedly, an understanding of the chronology of a disaster serves as an important base for civil defence planning. A theoretical model of emergency decision making postulated by Janis and Mann⁴⁸ lists various conditions under which effective decisions are most likely to be made and suggests interventions for facilitating such behaviour. Studies of such a nature are of importance in the assessment and development of civil defence executives' potential to deal with the enormous stress of commanding disaster operations (such activity being absent in South Africa).

The United Nations Disaster Relief Office in Geneva was established to co-ordinate and exchange information with disaster relief agencies. One of its objectives is to make professional expertise available to disaster management.⁴⁹ In Western Germany the "Sozialwissenschaftliches Institut für Katastrophen-und Unfallforschung" concentrates on theoretical research and empirical studies in the field of disasters and accidents.⁵⁰ In Australia disaster research is conducted at various universities and by the Natural Disasters Organisation.⁵¹ The Disaster Research Center, established in 1963 as a branch of the Ohio State

University (USA) is the largest of its kind. Since its inception it has conducted hundreds of field studies throughout the world. Its major research focus is on emergency organisations, their plans and response to large scale disasters.⁵²

As effective civil defence planning relies on the knowledge and expertise of a variety of disciplines (among other administration, climatology, electrology, engineering, geology, hydrology, law, medicine, psychology, pyrology, and the social sciences) the collation of such knowledge and expertise to form a systematised body of civil defence knowledge is most desirable.

A South African civil defence (or disaster) research centre/council/institute could be attached to a university, similar to the Institute for Strategic Studies attached to the University of Pretoria. Alternatively it could be constituted similar in format to that of the National Road Safety Council or be attached to the Directorate of Civil Defence. Such an organisation could be responsible for among other

1. initiating and co-ordinating research (particularly disaster operational research);
2. co-ordinating disaster prediction programs;
3. maintaining a civil defence data storage system;
4. providing guidelines for policy formation;
5. conducting civil defence public relations;
6. developing civil defence teaching and training programs (schools, technikons and universities);
7. assessing and training of civil defence executives (reactions to stress, decision making, etc.);
8. international liaison; and
9. nationwide dissemination of relevant material.

The costs involved in such an undertaking will be minimal compared to the increased potential for saving lives and alleviating suffering.

3. COMMENTS

- 3.1 From the discussion the complex nature of civil defence can be appreciated - while one issue relates to another, it in turn relates to many other and so on, thus making effective civil defence planning so much more difficult and complex. It should be added that the inclusion of a host of other organisations (there are many), excluded in this study, add to further complicate planning.
- 3.2 Difficulty was experienced in evaluating South African civil defence in the absence of locally related literature. While the limited use of international research findings served to highlight the inadequacies of the system, it also served as a reminder of the degree to which South African civil defence could (and should) develop. The parameters of this study limited discussion and the inclusion of disaster related theories and research findings. Considerable benefit could however be derived from further study of the material presented.
- 3.3 From the discussion it could be concluded that while civil defence has an adequate structure the service is in the infancy stage (in terms of its tremendous potential for growth). If it were to develop a break from the present maintenance of the status quo (in most cases merely meeting the statutory requirements) is required. It should develop a new image, a new approach and become a house-hold word. This is not as impossible as most authorities are apt to believe. Civil defence needs to develop a more professional approach. The formation of a professional association for civil defence personnel should be mooted.
- 3.4 All interested disciplines could convene to consider greater input by various disciplines and organisations. Apart from disaster medicine being taught to some medical students no formal civil defence related education or advanced training exists (as in the case of other countries - see Addendum 2). Civil defence management will ultimately benefit considerably if students (particularly social science) were exposed to the various disaster theories, therapies and research findings.

- 3.5 Apart from the widely held notion that a normal emergency is a civil defence emergency, civil defence terminology is often interpreted differently. A mini South African civil defence lexicon is required. Standard interpretation, particularly during operations is essential.
- 3.6 It is anomolous that with a 1979/80 Defence budget of R1 972 million to meet the "total onslaught" civil defence is found to be in its present state of preparedness.⁵³ It could be argued that while the borders are well defended the protection of homes is being neglected. The contention that no money is available for the improvement of fire services is indefensible (see 7.8.4). Civil defence in other countries (notably Sweden, the USA and USSR) should serve to stimulate an improvement of civil defence preparedness in South Africa (see Addendum 2).
- 3.7 It is the State's responsibility to defend and protect its citizens and should not shield behind the so-called "public apathy". As indicated much of this apathy could be government induced. Perhaps a call should once again be made to the Government to give the lead (see 11.1.6) and review the importance of effective civil defence in the overall strategy of the country's emergency preparedness. Similarly the public must be called upon to review their contribution to personal, family, community and ultimately, national survival.
- 3.8 May the awesome cost of life and the profound depths of human suffering goad the government and the governed to so care . . . and so prepare that when the real call is made neither will be found wanting. When this stage has been reached civil defence will have come of age - may the celebration be both soon and may it never take place.

4. NOTES

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CONCLUSION

Disasters in South Africa are infrequent. The threat of disasters is however on the increase due to the complexity of modern technology and the social order of the day. The increased threat and the consequences of disasters serve to justify the existence of civil defence.

The development of civil defence in South Africa has been slow and in terms of its potential for growth, much more development can take place. Recently the Government introduced comprehensive civil defence legislation. This laid the foundation of the present civil defence structure which is similar to that of other countries.

The South African Defence Force is responsible for the administration of the legislation and the overall control and co-ordination of civil defence activities on a national level. While the Department of Health, Welfare and Pensions is primarily geared to provide eleemosynary disaster relief measures, with further development it could provide the much needed emotional care services.

Provincial and local authorities are responsible for the implementation of civil defence. The Provincial Administration of the Cape of Good Hope is active in various civil defence related fields and has made considerable progress toward greater civil defence preparedness, particularly in the case of its emergency services. While the City Council of Cape Town possesses very sophisticated equipment, the community is not involved in its civil defence activities. The Divisional Council of the Cape is less well equipped and has successfully encouraged public participation.

In the event of a disaster the unique organisation of the Peninsula's emergency services could give rise to confusion, duplication and a lack of co-ordination and control. The rationalisation of services and improved civil defence co-ordination and control is required.

The concept of civil defence is confusing to many members of the public and widespread apathy is reported. The authorities, who are responsible for the protection of the public, must endeavour to create an improved civil defence image and actively encourage the public's participation in civil defence activities.

The importance of socio-organisational aspects of civil defence is almost entirely ignored. Civil defence in South Africa requires a greater input from other disciplines and local research in fields related to civil defence is essential.

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ADDENDA

CONTENTS

- ADDENDUM 1 - CAPE TOWN CIVIL DEFENCE SECTION
OBJECTIVES AND FUNCTIONS
- ADDENDUM 2 - CIVIL DEFENCE IN OTHER COUNTRIES

ADDENDUM 1

CAPE TOWN CIVIL DEFENCE SECTION OBJECTIVES AND FUNCTIONS

CONTENTS

1. ADMINISTRATION SECTION
2. CARE AND COMFORT SECTION
3. COMMUNICATIONS SECTION
4. FIRE AND RESCUE SECTION
5. FIRST AID SECTION
6. TRAFFIC CONTROL SECTION
7. TRANSPORT SECTION
8. MAINTENANCE SECTION

1. ADMINISTRATION SECTION

1.1 OBJECTIVES

To assist the Field Officer in the administrative and clerical duties of the Zone.

1.2 SUMMARY OF FUNCTIONS

1.2.1 To keep the Zone records of members of the Civil Defence Corps up to date with postings, transfers, resignations, changes of address and telephone numbers and follow up all enquiries regarding the same.

1.2.2 To maintain the schedule of the Zone's Medical and First Aid Posts by recording all changes that occur regarding the particulars of persons addresses and telephone numbers related thereto.

1.2.3 To maintain the Zone HQ files on the establishment and personnel of all the Zone's Sections.

1.2.4 To keep Civil Defence HQ informed of all changes that are made under items 1.2.1, 1.2.2 and 1.2.3 above.

1.2.5 To process the regular returns required by CD HQ such as petty cash expenditure, claims for use of private vehicles and equipment, strength returns and the annual stock taking.

1.2.6 To organise the Section into teams to carry out the duties required of them both at the Zone HQ and when allocated to other Sections in times of emergency.

2. CARE AND COMFORT SECTION

2.1 OBJECTIVES

The providing of social, welfare, emotional, spiritual, as well as

essential material needs for all members of an affected community, during and after an emergency situation.

2.2 SUMMARY OF FUNCTIONS

2.2.1 The providing of sustenance to the displaced persons, workers of Civil Defence and if necessary, the latter's families.

2.2.2 The providing of emergency housing and clothing to the displaced and evacuated persons.

2.2.3 The providing of recreational and spiritual needs of the displaced/evacuated persons.

2.2.4 Providing emotional support to those in need.

2.2.5 The care and re-assurance of the elderly and ill, in particular those living alone.

2.2.6 The assisting with animal care and manning of Posts determined by veterinary surgeons.

2.2.7 The collating of all relevant information on possible venues for feeding and housing and the establishing of such Posts for aid during emergencies.

2.2.8 The organising of membership within the Care and Comfort Section into suitable teams to provide for all the points mentioned above.

2.2.9 The arranging of exercises, lectures, talks and the calling of meetings, to maintain a high level of preparedness and interest.

3. COMMUNICATIONS SECTION

3.1 OBJECTIVES

To establish and maintain effective communications during and

after an emergency situation.

3.2.2 SUMMARY OF FUNCTIONS

3.2.1 The training of suitable members in radio operating procedures, message handling and net control operations, to ensure:

3.2.1.1 Effective radio communication links on approved frequencies between the Corps Headquarters and Zone Headquarters;

3.2.1.2 Effective communications within a Zone's operational area and the Zone Headquarters.

3.2.2 The organising of the Section's membership into suitable teams, to provide for the manning of radio equipment, despatch riding and general message handling.

3.2.3 The recording of incidents and relevant information on Zone area maps at Zone Headquarters and/or operational headquarters.

3.2.4 The compiling of up-to-date situation reports on the handling of emergencies.

3.2.5 Arranging exercises, lectures and talks and holding meetings to maintain a high level of preparedness and interest.

4. FIRE AND RESCUE SECTION

4.1 OBJECTIVES

To assist in the prevention and combating of fires and with related rescue operations during and after an emergency situation.

4.2 SUMMARY OF FUNCTIONS

4.2.1 To organise trained Corps members into suitable teams for

the combating of fires.

- 4.2.2 To provide a trained back-up service to the existing professional services.
- 4.2.3 To provide trained manpower for the combating of fires and the limiting of fire spread.
- 4.2.4 To provide trained and selected manpower for related rescue work.
- 4.2.5 To establish, if required, fire-watch units to report outbreaks of fires.
- 4.2.6 To arrange exercises, lectures, talks and the calling of meetings, to maintain a high level of preparedness and interest.

5. FIRST AID SECTION

5.1 OBJECTIVE

To assist the medical and para medical personnel both during and after an emergency situation.

5.2 SUMMARY OF FUNCTIONS

- 5.2.1 To help the doctors and first aid personnel at the established Medical Aid and First Aid Posts within the Zone that are preparing for, or are handling, casualties.
- 5.2.2 To ensure that the Civil Defence medical supplies at these posts are readily available and arrange for additional supplies from Zone HQ as and when required.
- 5.2.3 To get the Civil Defence stretchers from Zone HQ to the post or posts where they are needed.
- 5.2.4 To assist in the care of casualties as they arrive, in the

handling of stretcher cases and in their transfer to ambulances after treatment.

5.2.5 To keep Zone HQ informed by radio of the situation at the posts.

5.2.6 To join the First Aiders in their work, whenever other duties permit.

5.2.7 To perform all the above functions at any place that has been established for displaced persons.

6. TRAFFIC CONTROL SECTION

6.1 OBJECTIVES

To assist the professional services in the implementation of traffic control and the control of crowds during and after an emergency or disaster situation.

6.2 SUMMARY OF FUNCTIONS

6.2.1 To assist in the smooth flow of traffic in and around a disaster area.

6.2.2 To ensure the control of traffic at and around all medical posts and care centres that are actively engaged in Civil Defence activities.

6.2.3 To assist with crowd control at disaster scenes.

6.2.4 To exercise access control of people to restricted areas, including the precincts of medical posts and care centres that are operative.

6.2.5 To guide those members of the public requiring help to the various Civil Defence service points.

- 6.2.6 To familiarise themselves with their Zone area to establish reasonable access and exit routes to and from all medical posts, potential care centres and any essential institutions such as hospitals, that may require their assistance.
- 6.2.7 The collation of the information in 2.6 for the information of Zone HQ and the other sections in the Zone organisation.
- 6.2.8 To arrange exercises, lectures, talks and meetings, to maintain interest and a high level of preparedness.

7. TRANSPORT SECTION

7.1 OBJECTIVES

To provide transport for personnel, casualties, evacuees, stores, equipment, supplies and messages during and after an emergency.

7.2 SUMMARY OF FUNCTIONS

- 7.2.1 The provision of emergency vehicles as a back-up to the existing professional services, to transport casualties from a disaster area.
- 7.2.2 The provision of transport to assist with the evacuating of people from a danger area.
- 7.2.3 The provision of transport, where necessary, for Corps members.
- 7.2.4 The provision of vehicles for supplies, equipment and stores which may be required.
- 7.2.5 The provision of suitable vehicles for dispatches.
- 7.2.6 The provision of suitable vehicles which can negotiate rugged terrain.

- 7.2.7 The categorising of vehicles for task allocation.
- 7.2.8 The selection of suitable areas as transport assembly parks.
- 7.2.9 Collating of information on availability of fuel from private garages.
- 7.2.10 Organising the membership within the section, into suitable teams, to make provision for the abovementioned points.
- 7.2.11 Arranging of exercises, lectures, talks and the calling of meetings to maintain a high level of preparedness and interest.

8. MAINTENANCE SECTION

8.1 OBJECTIVES

To assist in the maintenance and restoration of essential services such as electricity, water and gas and care of the Zone's vehicles and equipment during and after an emergency situation.

8.2 SUMMARY OF FUNCTIONS

- 8.2.1 To provide a back-up or support service to essential municipal departments.
- 8.2.2 To provide emergency maintenance of vehicles, equipment and properties used or commandeered by the Civil Defence Corps.
- 8.2.3 The determining of requirements to restore disrupted essential services and equipment specifically tasked to the Zone.
- 8.2.4 The organising of the membership within the Maintenance Division into suitable teams, to provide for all the points mentioned above.

8.2.5 The arranging of exercises, lectures, talks and the calling of meetings, to maintain a high level of preparedness and interest.

Reproduced from: City Council of Cape Town [Guidelines on Structure and Function of Civil Defence Sections], n.d.

ADDENDUM 2

CIVIL DEFENCE IN OTHER COUNTRIES

CONTENTS

1. INTRODUCTION
2. AUSTRALIA
3. NEW ZEALAND
4. SWEDEN
5. UNION OF SOVIET SOCIALIST REPUBLICS
6. UNITED KINGDOM
7. UNITED STATES OF AMERICA
8. SOURCES

1. INTRODUCTION

All nations have some form of civil defence. While the universal raison d' être is the protection of the civilian population the nature of the disaster threat and the resultant emphasis on civil defence varies from nation to nation.

Civil defence in the USSR, for instance is designed almost exclusively to meet the nation's military needs whereas the threat posed by natural disasters enjoys greater priority elsewhere.

Civil defence organisations in other countries should be seen in the context of their understanding and interpretation of civil defence, which in many cases varies from that of South Africa.

For a cursory comparison between South African civil defence and that of other nations a brief description of civil defence in a few select nations is included.

2. AUSTRALIA

The Natural Disasters Organisation (NDO), which was established in the Department of Defence in 1974, was preceded by the Directorate of Civil Defence.

The NDO and the State and Territory Emergency Service organisations form the basis of the civil defence structure in Australia.

The state governments are responsible for their own organisations and relief operations. In the event of a national disaster the NDO, with its headquarters in Canberra, co-ordinates national relief measures and ensure that state governments receive Commonwealth Government material and physical support.

The NDO administers various programs from Commonwealth funds. These include the supply of emergency equipment; the subsidisation of salaries for regional emergency organisers; the provision of films and literature; and training courses at the Australian Counter Disaster College.

The NDO is responsible for the development and implementation of contingency plans involving Commonwealth resources to cope with natural disasters and civil defence needs.

3. NEW ZEALAND

A Ministry of Civil Defence was established within the framework of the Department of Internal Affairs in 1959. The Civil Defence Act, 1962 provides for community and government participation in civil defence.

The National Civil Defence Committee which consists of representatives from 14 Government departments is represented on Regional Civil Defence Committees.

The National Civil Defence Committee effects and co-ordinates Government departments' participation and serves to advise and assist the Minister and Director of Civil Defence with the planning and implementation of the service.

For civil defence purposes the country is divided into three regions and three regional commissioners were appointed to implement Central Government policy within their regions.

Local authorities are required to establish and maintain viable civil defence organisations. Local authorities are empowered to declare local civil defence emergencies and are entitled to assume considerable power in such events.

In the event of a declared regional emergency the local authorities' civil defence measures will be co-ordinated and controlled by the various regional commissioners, who are in turn responsible to the Director of Civil Defence. In the event of a national emergency, operations are directed from the National Civil Defence Operational Headquarters, located in Wellington.

While the Ministry of Civil Defence provides various subsidies for the training of civil defence personnel the local authorities are responsible for the training of the local civil defence organisation volunteers.

4. SWEDEN

Civil Defence in Sweden forms part of the total defence system (military, economic and psychological defence). The State, which is responsible for the provision of civil defence, formulates policy through the Swedish Civil Defence Administration.

Formerly the Swedish civil defence was designed to deal primarily with the results of a nuclear war. In 1972 "Organisation - 80" was established to meet the needs of both a conventional and nuclear war and to give greater attention to the training of civil defence personnel. The training program is decentralised and offered at five regional training centres. Since 1977 units known as "S-units" were established to serve as rapid deployment units in the event of an emergency. Swedish civil defence units have specified times in which they are required to become fully mobilised.

Civil defence is part of the country's "safety policy" and apart from the Swedish Civil Defence Administration, the National Police Force; the National Board of Health and Welfare; and the National Veterinary Board are directly involved in civil defence.

The primary functions of civil defence are the erection of bomb shelters; first aid; rescue; the development of evacuation programs; the protection of the State against espionage and sabotage; and the maintenance of control centres erected in 100 civil defence areas.

One of the more important aspects of civil defence is the emphasis placed on bomb shelters. There are an estimated 7 million shelters in Sweden. Between 1975 and 1976 civil defence received \$60 million, of which 22 per cent was spent on shelters.

Apart from those doing military duty, citizens between the ages of 16 and 65 are expected to be actively involved in civil defence. By February 1979 the estimated membership of civil defence was 160 000 men and 30 000 women.

5. UNION OF SOVIET SOCIALIST REPUBLICS

The Soviet Union Communist Party controls all sectors of Soviet society including civil defence. It exercises control over the population by means of propaganda, persuasion, exhortation and coercion. The civil defence organisation is effective in preparing the population for war and its consequences by keeping alive the "threat" that Western Capitalism poses to world peace.

Since before World War II the USSR has had an active civil defence program. In 1961 civil defence became part of the USSR Ministry of Defence and since 1972 it has been headed by the Deputy Minister of Defence, a General in the Army.

The main tasks of Soviet civil defence are those of protecting the population (which includes large-scale training of the population in armed combat - active defence preparation); maintaining the economy during war; disaster relief and post-atomic recovery.

Under the Deputy Minister there are at least seventy general officers who serve in various civil defence capacities. In each of the fifteen Soviet Republics a general officer serves as the Chief of Civil Defence Staff for the republic.

The Soviet Armed Forces have a Civil Defence Army. The training and conscription period of two years is similar to that of other ground forces. The Military Civil Defence College in Moscow provides a four-year officer's course. The Civil Defence Army consists of approximately 100 000 well trained and equipped troops who are organised into battalions and stationed throughout the country to assist with civil defence activities on a regional and local level.

The chief executive of a local authority is usually the Chief of Civil Defence for the area and the heads of the various departments are responsible for the formation of civil defence organisations in their respective departments. Thus during a disaster the Head of the Transport Service for example becomes the official responsible for the Civil Defence Transport Service.

All institutions and organisations such as schools, industries and collective farms are required to establish civil defence organisations with the head of such institutions or organisations as the chief of the civil defence organisation and to work closely with the local authorities.

Civil defence in the Soviet Union is based on the provision of shelter; the dispersal of workers and industries thus making them less vulnerable to attack; and large scale evacuation. While Western authorities are of the opinion that the many shelters are inadequate, evacuation programs are sophisticated and industries are well dispersed.

Apart from the military troops, full and part-time civilian civil defence staff, the ordinary citizens form an integral part of civil defence.

All Soviet citizens (men up to 65 and women up to 55) must undergo civil defence training. Such training, which may vary from the once only minimum of 20 hours to 90 hours a year excluding exercises, is conducted at schools, universities, places of employment and various other organisations. The training is conducted by civil defence staff and various voluntary organisations, notably DOSAAF (Volunteer Society for Co-operation with the Army, Aviation and Fleet - a para-military physical culture organisation with an active membership of 10 million). DOSAAF regularly organises exercises and sports activities related to civil defence such as climbing, shooting and parachuting. Another organisation known as "Znaniye" (Knowledge) is responsible for informing the public on a variety of civil defence topics by means of lectures and television and radio broadcasts.

Several million citizens serve in various civil defence capacities.

It is estimated that as a result of the Soviet Union's civil defence preparedness, recovery from a nuclear war would take 2 to 4 years compared to a 12-year recovery period for the United States of America.

6. UNITED KINGDOM

The aerial bombing of the British civilian population and their need of protection during World War II gave rise to the development of a

sophisticated civil defence service hitherto unequalled.

After disbanding civil defence after the war the British Government re-introduced civil defence by means of the Civil Defence Act, 1948 and the Civil Defence (Northern Ireland) Act, 1950.

The responsibility for civil defence was given to certain ministers. In England and Wales the secretaries for internal affairs in the various provinces are responsible for the co-ordination of all civil defence activities whereas in the case of Northern Ireland and Scotland this function is performed by the secretaries for Northern Irish and for Scottish affairs.

For civil defence purposes the country is divided into twelve regions: nine in England, with Northern Ireland, Scotland and Wales. The regions in England are further subdivided into two or three sub-regions and Wales into two, whereas Northern Ireland and Scotland are divided into zones. Regional directors situated at regional headquarters are responsible for civil defence control in their respective regions.

After being re-introduced in 1949, the Civil Defence Corps - which had its origin in World War II and formed the basis of local civil defence organisations - reached its zenith in 1952 while preparing to counter a nuclear attack.

In 1968 the Corps was abolished and the Government of the time stated that in terms of section 2 of the Civil Defence Act, 1948, local authorities would retain certain civil defence functions. Thus civil defence at local level was essentially reduced to two phases: a "re-activation period" of a month in which the Civil Defence Corps would be reactivated and a 48-hour warning period for the dispersion of people and resources.

The Royal Observer Corps is equipped with approximately 1 500 bunkers throughout the country and serves to relay information on attacks, nuclear blasts and fall-out and evacuation.

Britain has numerous underground shelters which include a virtually invulnerable network of communications and government offices which ensure continued control and administration during a disaster.

7. UNITED STATES OF AMERICA

Civil defence in the United States is the joint responsibility of federal, state and local governments.

The first civil defence agency, the Council of National Defense was established in 1916 and the office of Civilian Defense was established in 1941 to co-ordinate civil defence activities during World War II. The country's present civil defence system was established in terms of the Civil Defense Act, 1950.

Federal responsibility for civil defence is shared by the Office of Preparedness in the General Services Administration (GSA) and the Defense Civil Preparedness Agency (DCPA) in the Department of Defense (DoD). Within the DoD the Army is responsible for the management of all military support services. The Office of Preparedness serves to liaise with, advise and assist the President to co-ordinate federal civil defence activities.

The aim of the DCPA is to provide an effective national civil defence program and to advise and guide state and local authorities on emergency operations in peacetime and wartime.

The DCPA has eight regional headquarters spread throughout the United States responsible for planning on a regional level and is responsible for the operation, by the Army of the federal part of warning and emergency communications systems. The warning system would serve to alert federal, state and local civil defence agencies who in turn would alert emergency workers and the public.

In addition to audiovisual material used to educate the public the DCPA prepared a handbook for civil defence training in schools. In 1976 a total of 2 700 000 students underwent such training in sixteen states.

The DCPA employs approximately 600 persons in Washington and in its eight regional headquarters. An estimated 7 000 people serve in full time civil defence positions in federal, state and local agencies.

In the United States the DCPA has designated 400 "high risk" areas

(nuclear attack) because of their proximity to counterforce targets, key military installations and urban/industrial complexes. Projects undertaken in some of these areas are aimed at producing detailed evacuation plans and fall-out shelters. By the middle of 1973 approximately 118 million shelter spaces which have been marked by local authorities and meet DCPA standards were identified.

Various other federal agencies exist which have civil defence related functions such as the Federal Disaster Assistance Administration in the Department of Housing and Urban Development. This agency serves to co-ordinate government aid to disaster stricken areas.

The Army chain of command in a civil defence emergency is from Defense Administration to Forces Command Headquarters to continental Army headquarters and to state military headquarters. All military forces (active and reserve) immediately fall under command of the commanding general of the Army concerned (for example in continental U.S.A. the continental Army). Continental Army headquarters informs state militia annually of force strengths available for civil defence support in that state. In an emergency the headquarters of the state adjutants-general will be federalized to serve as state military headquarters in command of all military forces previously made available. There are certain active Army units and installations that have a specific civil defence mission.

While every state has a civil defence director, most state governments have an office of emergency planning to plan and co-ordinate all civil defence activities within the state. Each state government is responsible for providing assistance to the civil defence agencies of its cities and counties and ensures that federal aid reaches local agencies. Funding of state civil defence activities is part federal and part state.

Although most county, city and town authorities have a civil defence director to co-ordinate the activities of local government departments, private organisations and individuals. However, civil defence activities at this level have ceased to exist.

In 1975 a Department of Defense analysis revealed that in the case of a comprehensive USSR counterforce attack (on military installations) casualties would approximate 6 700 000, whereas a countervalue attack

(on industrial and economic centres) would result in approximately 100 000 000 casualties. Further studies have indicated that the maximum damage that the United States could inflict on the USSR, if its cities were evacuated, would be less than four per cent, whereas the USSR could destroy 45 per cent of the United States population.

The entire federal budget for civil defence in 1977 amounted to \$71 million (states contribute to their own maximum budget of \$50 million) in contrast to the cost of one B-1 bomber of \$87 000 million (an eventual fleet of 250 envisaged). In 1978 the projected annual maximum federal expenditure on civil defence totalled \$200 million compared with an estimated cumulative USSR expenditure of \$65 billion.

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APPENDICES

CONTENTS

- APPENDIX 1 - CIVIL DEFENCE EMBLEMS
- APPENDIX 2 - CIVIL DEFENCE DATA CARDS

APPENDIX 1

CIVIL DEFENCE EMBLEMS

CONTENTS

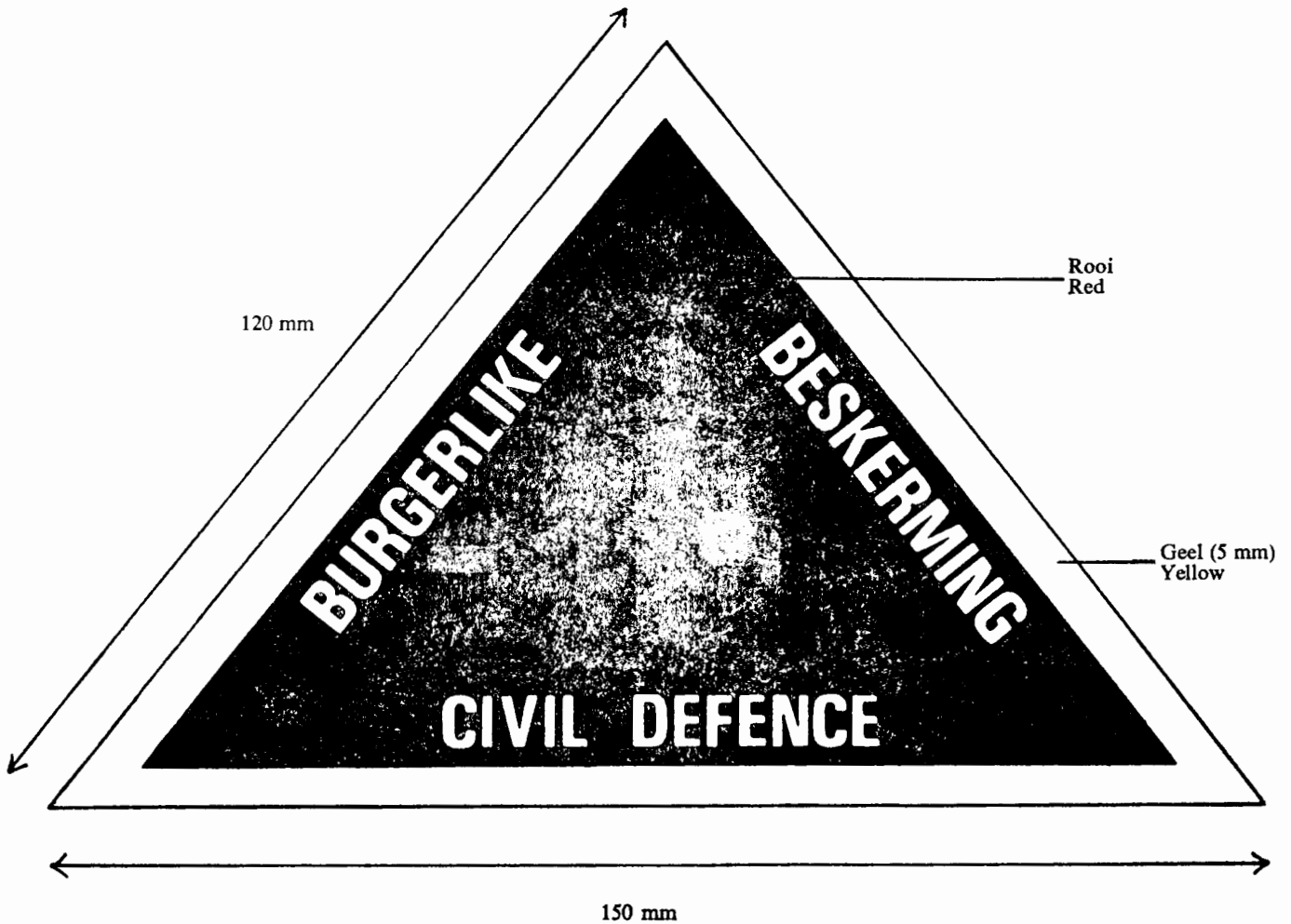
SCHEDULE D - CIVIL DEFENCE EMBLEM

SCHEDULE E - SYMBOLS OF ACTIVITIES

1. Fire-fighting
2. Communication
3. Electrical Services
4. Water Services
5. Traffic Control
6. First Aid
7. Control
8. Care Services
9. Transport Services
10. Municipal coat of arms

BYLAE D
BURGERLIKE BESKERMINGSTEKEN
(REGULASIE 4 (2))

SCHEDULE D
CIVIL DEFENCE EMBLEM
(REGULATION 4 (2))



Afmeting van letters : 7 mm hoog en 3 mm breed
Kleur van letters : Geel

Dimensions of letters : 7 mm high and 3 mm wide
Colour of letters : Yellow

BYLAE E
BURGERLIKE BESKERMINGSTEKEN EN
SIMBOOL VAN AKTIWITEITE (REGULASIE 4 (4))

SCHEDULE E
CIVIL DEFENCE EMBLEM AND SYMBOL OF
ACTIVITIES (REGULATION 4 (4))



1. Brandbestryding
Fire-fighting

2. Kommunikasie
Communication



3. Elektriese Dienste
Electrical Services



4. Waterdienste
Water Services



5. Verkeersbeheer
Traffic Control



6. Noodhulp
First Aid



7. Beheer (Vir persoonlike gebruik
deur Hoof en sy beheerelement)
Control (For personal use by
Chief and his control element)



8. Versorgingsdienste
Care Services



9. Vervoerdienste
Transport Services

Tekens Nos. 1 tot 10 hierbo moet dieselfde groottes en kleure hê as dié ten opsigte van die teken wat in Bylae D beskryf word.

Die kleur van die aktiwiteitsimbole in die geval van tekens Nos. 1, 4, 6, 8 en 9, is groen op 'n geel agtergrond, en in die geval van tekens Nos. 2, 3, 5, 7 en 10 word die simbool op 'n geel agtergrond groen omrand.

10. Stadswapen
(Vir gebruik deur lede van
administratiewe en uitvoerende dienste)
Municipal coat of arms
(For use by members of
administrative and executive services)

Signs Nos. 1 to 10 above must be of the same sizes and colours as those in respect of the sign described in Schedule D.

The colour of the activity symbols in the case of signs Nos. 1, 4, 6, 8 and 9 is green on a yellow background, and in the case of signs Nos. 2, 3, 5, 7 and 10 the symbol on a yellow background is outlined in green.

NBD

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December 15, 1978, P.N. 1224/1978

APPENDIX 2

CIVIL DEFENCE DATA CARDS

CONTENTS

1. HOUSEHOLD
2. SCHOOL

CIVIL DEFENCE DATA CARD : HOUSEHOLD

FRONT

DIVISIONAL COUNCIL OF THE CAPE

REVERSE

Have you planned a survival kit
Het u middele vir oorlewing beplan

1

Occupier of house
Bewoner van huis

Address/Adres

ASSISTANCE IN EMERGENCIES BYSTAND IN NOODTOESTANDE		By whom	Deur wie
SERVICE OFFERED/DIENS AANGEBIED			
1. Fire Fighting/Brandbestryding	Tel		
2. Communications/Kommunikasie	Office or School	Kantoor of Skool	
3. Maintenance/Onderhoud	Zone		
4. Traffic control/Verkeersbeheer	Resident 1		
5. First Aid/Noodhulp	Occupation/Beroep		
6. Administration/Administrasie	Resident 2		
7. Care work/Sorgdienste	Occupation/Beroep		
8. Transport/Vervoer	Child/Kind 1		
9. Specialised Service/Gespesialiseerde diens	Child/Kind 2		
	Other/Ander		
EQUIPMENT AVAILABLE/TOERUSTING BESKIKBAAR			
1. Electricity main switch/Elektrisiteit hoofskakelaar		1. Transport, Heavy & Specialised/Voertuie, swaar & gespesialiseerd	
2. Water main stopcock/Afsluitkraan vir water		2. Earthmoving & Hoisting/Grondverskuiving & Hystoestel	
3. Fire Extinguisher/Brandblusser		3. Workshop/Werkwinkel	
4. Garden hose/Tuinslang		4. Gas Bottles/Gashouers	
5. Person with keys to your house/Person met u huis se sleutel		5. Bedrooms for people/Slaapkamers vir persone	
6. Own water supply/Eie watervoorraad		6. Caravan for people/Woonwa vir persone	
		7. Tents for people/Tente vir persone	

IN CASE OF EMERGENCY IN YOUR ABSENCE WHERE MAY C D FIND
IN GEVAL VAN NOOD IN U AFWESIGHEID, WAAR KAN BURG B VIND

CIVIL DEFENCE DATA CARD : SCHOOL
 DIVISIONAL COUNCIL OF THE CAPE

REVERSE

FRONT

Address/Adres _____ 2 _____ PARENTS TO ASSIST/OUERS VIR BYSTAND _____
 _____ 1. _____
 _____ 2. _____
 _____ 3. _____
 School/Skool
 Zone
 Tel. _____

Principals/Hoofde	Home/Huis	TEL.
1.	Emergency checklist/Noodsaaklike items	
2.	1. Fire Extinguishers/Brandblussers 2. Trained fire fighters/Oggeleide brandbestryders. 3. First Aid Boxes/Noodhulpkassies 4. Trained first aiders/Oggeleide noodhelpers	
3.	5. Communication systems/Stelsels vir kommunikasie 6. Evacuation procedures/Ontruimingsprosedure 7. Assembly Points/Versameelpunte 8. Rest rooms/Ruskamers 9. Own water supply/Eie watervoorraad 10. Emergency refreshments/Nood-verversings	
	IN CASE OF EMERGENCY, WHERE MAY C.D. FIND IN NOODGEVAL, WAAR KAN BURG B. VIND	
1.	Nearest hydrant/Naaste brandkraan	
2.	Water main stopcock/Afsluitkraan van water	How many or for how many/Hoeveel of vir hoeveel
3.	Electricity isolation points/Afsluitpunte van elektrisiteit	1. Cookers (type)/Stowe (soort)
4.	Inflammable or hazardous materials/ Ontvlambare of gevaarlike stowwe	2. Wash basins/Wasbakke 3. Showers/Stortbaddens 4. Toilets 5. Hall (size)/Saal (grootte) 6. Parking space/Parkeerruimte 7. Other/Ander (6m x 2.5m per car/kar)