



South African  
Weather Service



Annual Report 2004/2005



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## Vision

To be a world-class meteorological organisation that contributes to the sustainable development of South Africa and beyond.

## Mission

To collect, process and provide meteorological and climatological products and services for the public good and commercial use of all South Africans and beyond.



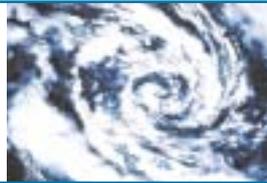
The South African Weather Service logo represents the movement of weather systems and its interaction with the earth, sun and atmosphere. It also creates a fresh, dynamic visual appearance that identifies SAWS as a proudly South African organisation.



The red-brown represents the earth from which all growth and life originates.



The green symbolises sustainability and life.



The dark blue represents the atmosphere in which all weather occurs.



The light blue represents water which is our main source of life.



The yellow circle represents the African sun.

## Shared values

SAWS values are firmly entrenched in the corporate culture and the mission will be realised through visionary leadership and competent staff who embody the following values:

- Professionalism
- Integrity and honesty
- Respect and excellence
- Teamwork and partnership
- Recognition of excellence in performance

## Part 1

# Message from the Deputy Minister of Environmental Affairs and Tourism



**Honourable Rejoice Mabudafhasi**  
Deputy Minister: Environmental Affairs and Tourism

The South African Weather Service (SAWS) continues to balance the demands of a fledgling and growing democracy against the technology-driven changes of the international scientific community. The work undertaken by the organisation in the reporting year clearly demonstrates the benefits of transformation towards being an efficient agency of the Department of Environmental Affairs and Tourism.

At grassroots, the organisation engaged with the local community in the greater Mtata area to set up a radar and observation stations that would improve coverage of the Eastern Cape. The project, which I had the privilege of launching in October 2004, will benefit the community directly through jobs and skills transfer as well as providing SAWS with equipment necessary to observe the clouds and to issue warnings to the general public and surrounding farmers on approaching severe weather phenomena. This benefit extends to the maritime industries in the eastern seaboard as well.

On the higher end of the spectrum, SAWS contributes to cutting-edge research in the area of meteorology and has been selected as the Southern Africa Training Centre

for the Meteosat Second Generation (MSG), which will be launched early in the new year. Added to this, SAWS continued to provide capacity building and technical support, in line with its New Partnership for Africa's Development (NEPAD) objectives, to neighbouring African countries, including Swaziland, Mozambique, Botswana and Zambia.

The organisation's strategic thrusts and realignment have streamlined its internal processes to augment delivery to diverse stakeholders, without losing sight of its obligation to the disadvantaged communities.

I wish to welcome the new board members and congratulate the Board and Executive Management of SAWS on representing an unqualified report for yet another year.

**Rejoice Mabudafhasi**

*Deputy Minister: Environmental Affairs and Tourism*

## Part 1

# Foreword by the Chairperson of the South African Weather Service Board



**Sizeka Rensburg**

Chairperson: South African Weather Service Board

The observed global changes in weather and climate patterns and their impacts over South Africa and the sub-region, once more re-confirm the critical role of the South African Weather Service (SAWS) in issuing quality weather information and mitigating weather-related disasters.

The re-appointment of the Board Chairperson and several other Board members and the appointment of new members: Dr Linda Makuleni, Rev Walter Mbetse and Messrs Welcome Msomi, Ian Robinson and Rowan Nicholls, is welcomed and essential for ensuring continuity in the functioning of SAWS.

The 2004/5 financial year focused on the extension of public good services to weather-susceptible areas of our country and saw the launch of the Highbury Weather Radar Project and five automated weather stations in the Eastern Cape. This project also signified the power of partnerships in the delivery of weather services. The project was financed from the poverty alleviation funds of the Department of Environmental Affairs and Tourism (DEAT) and the Eastern Cape Provincial Government. The project resulted in job creation and closer cooperation with the community and traditional leadership in the selected areas. The new meteorological infrastructure will improve weather observations in this area and impact positively on public

forecast information, particularly of severe weather systems which are frequent in this part of the country.

During the past four years, SAWS has been able to grow its commercial revenue and diversify its client base. Currently, the commercial revenue contributes 33% to the overall SAWS budget and this is used for improving the quality of the weather services being rendered.

On the international front, SAWS has played a crucial role in fostering regional cooperation between weather services in Southern Africa through the development of regional programmes. SAWS is currently cooperating with a number of national weather services in the region to develop seamless and integrated weather products and services for the Southern African region. It has also played an important role in the World Meteorological Organization by highlighting the plight of national weather services in the African region and jointly developing remedial action.

The Board is convinced that SAWS is working hard to meet the requirements of its mandate, judged by the positive response from the media, commercial clients and the public about the quality of information they receive. The enormous support from the Minister, Deputy Minister and the Director-General has helped the organisation realise its achievements during this period.

The annual report of SAWS, established in terms of Act No 8 of 2001, is hereby submitted to the Minister of Environmental Affairs and Tourism for tabling in Parliament.

**Sizeka Rensburg**

Chairperson: South African Weather Service

## Part 1

# Overview by the Chief Executive Officer



Jerry Lengoasa  
Chief Executive Officer

This has been an eventful and challenging year in the meteorological sphere in which the South African Weather Service (SAWS) came out on top, thanks to the benefits of strategic realignment and change of focus.

Global events such as the tsunami that hit South East Asia, although not weather related, brought into focus the role of meteorological services. The near-drought conditions in the northern part of South Africa also focused on the need to understand both weather and climate conditions. In both instances, various stakeholders looked up to SAWS to provide the answers.

Such events and expectations brought to bear the need to align the organisation to focus on its goals. The strategic approach that was approved by SAWS Board at the end of the previous financial year helped establish a balance between public good and commercial imperatives (external focus of SAWS) as well as with learning and growth goals and business processes (internal focus).

The five-pillar strategic approach helped strengthen among others, corporate governance, which played

a key role in the implementation of our business plan. The appointment of the Corporate Secretariat and Legal Advisor and General Manager: Corporate Services, augmented the implementation and development of divisional strategies.

These strategies are being aligned with the new multi-year business planning methodology that was introduced in August 2003 driven by programmes and activities. The document is currently under revision from a three-year to a five-year business planning cycle as per the Cabinet Lekgotla resolution. The template is also used for activity planning for the 2005/2006 financial period for purposes of efficiently and effectively delivering divisional and organisational goals against given financial allocations.

Another pillar in the strategic approach is the streamlining of SAWS products particularly to deliver on the commercial imperatives, which is a key factor in the agentisation of SAWS. The marketing and communications framework and strategy was developed and implementation commenced. The new Senior Manager: Marketing and Sales was appointed to support this part of the strategy.

## Part 1

# Overview by the Chief Executive Officer (continued)

In this area of communication and marketing, our presence in the media increased, particularly with the introduction of media briefings on seasonal forecasts. These briefings were also milestones indicating a maturity of new forecasting techniques to improve the accuracy and reliability of seasonal predictions. These new techniques have achieved significant results with improved skill of predicting seasonal precipitation.

We improved on-the-job-training and knowledge management of forecasters through enhanced collaboration between researchers and forecasters in the National Forecasting Centre to further enhance our ability to deliver on the technical side.

The Eastern Cape Radar Project, which straddled both public good (community involvement and upliftment) and commercial intent (maritime observation of the eastern seaboard) was launched in October 2004. Five semi-automatic weather observation stations were also launched and are now fully functional. The lessons learned in community relations through this project were remarkable.

In line with our commitment to support the objectives of New Partnership for Africa's Development (NEPAD) we sent scientists to Tanzania to review the automatic weather station (AWS) that had been deployed in that country. We also participated in the supply of AWS to Namibia. The radar network of SAWS is also part of the Southern Africa Radar Network that includes Namibia, Botswana, Lesotho, Mozambique and Zimbabwe.

We were honoured to host the Secretary-General of the WMO, Mr Michel Jarraud and the Africa Region

Director, Mr Alioune Ndiaye who were in the country as part of their African mission. Their visit further strengthened the call for collaboration between SAWS and other meteorological organisations, particularly in Africa.

Congratulations to our research team on cloud seeding, which was nominated for the WMO/United Arab Emirates (UAE) prize for Excellence in Weather Modification.

Our selection as the Southern African Training Centre for Meteosat Second Generation (MSG) is a further recognition of our role in both the African and the international meteorology arena. We plan to officially launch this centre in the new financial year.

The rising profile of SAWS internationally is being duplicated nationally, where more stakeholders look up to the organisation to provide critical information for decision-making in the lives of our people and for business.

We take up the challenge to continue to grow the organisation towards a world-class meteorological service as we welcome the new board members. The reappointment of Ms Sizeka Rensburg as Chairperson and the retention of some of the existing board members will provide the continuity in strategic leadership that will take the organisation to the next level.

**Jerry Lengoasa**  
Chief Executive Officer

## Part 1

### Board members



**Ms Sizeka Rensburg**  
*Chairperson*



**Mr Leslie Maasdorp**  
*Deputy Chairperson*



**Mr Jerry Lengoasa**  
*Chief Executive Officer*



**Ms Lindiwe Sangweni-Siddo**  
*Chairperson: Human Resources  
and Remuneration Committee*



**Mr Prince Maluleke**  
*Chairperson: Risk and Audit  
Committee*

# Part 1

## Board members



**Dr Jonas Mphepya**  
*Non-executive*



**Prof Geoff Brundrit**  
*Non-executive*



**Prof Derrick Ian Swartz**  
*Non-executive*



**Ms Patricia Maqubela**  
*Non-executive*



**Mr Ian Robinson**  
*Non-executive*

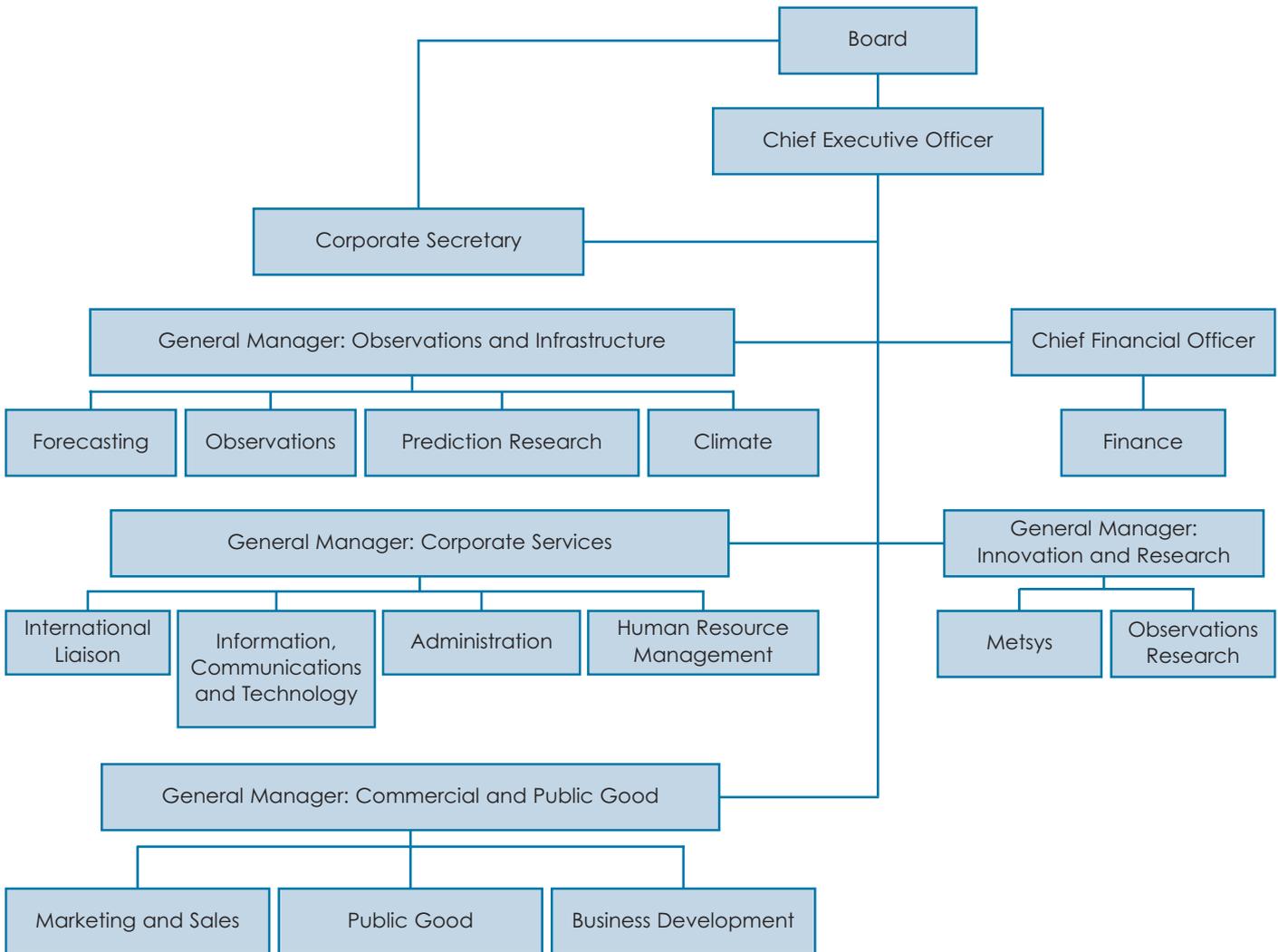


**Dr Joseph Matjila**  
*Non-executive,  
DEAT representative*



## Part 2

# Organisational structure



The South African Weather Service (SAWS) derives its mandate from the South African Weather Service Act No 8 of 2001. Its vision and mission, underpinned by a set of values and goals are geared towards building a world-class meteorological organisation that provides meteorological and climatological products and services for the public good and for commercial activities. We have adopted five strategic thrusts by which we are working to achieve our vision:

- Corporate governance
- International liaison
- Research and development
- Commercial and public good service delivery
- Mainstreaming of the South African Weather Service products

## Part 2

# Corporate governance

### INTRODUCTION

The South African Weather Service is a public entity reporting to the Ministry of Environmental Affairs and Tourism.

The South African Weather Service derives its mandate from the South African Weather Service Act No 8 of 2001 read in conjunction with the Public Finance Management Act No 1 of 1999. The Board of the South African Weather Service subscribes to good corporate governance principles which are practised throughout the organisation.

In addition to the South African Weather Service Act and the Public Finance Management Act the Board is also guided by the King II Report on Corporate Governance as well as the Protocol on Corporate Governance of 2002.

In line with its statutory mandate, the South African Weather Service provides two services which are:

#### Public good services

The gathering of meteorological and climatological observation data over South Africa and surrounding oceans, the provision of weather and climatic forecasting and warning services to the general public through various public sector and non-public sector intermediaries. The public good service is funded by the government.

#### Commercial services

The provision of specialised weather forecasting and climate information services to monitored and non-monitored commercial sectors. The commercial service is funded through revenue generated from various commercial clients.

### GOVERNING STRUCTURES

#### The Board of the South African Weather Service

Chapter 3 of the South African Weather Service Act No 8 of 2001 provides that there shall be at least 10 (ten) members and no more than 12 (twelve) members comprising:

Ten non-executive members, one of whom shall be the Chairperson, appointed by the Minister in accordance with section 5(3) and taking into account the provisions of section 5(2) of the South African Weather Service Act No

8 of 2001, the Chief Executive Officer by virtue of his/her office, a senior official of the Department designated by the Director-General with the approval of the Minister.

During the reporting year the Chairperson of the Board was Ms Sizeka Rensburg and the Deputy Chairperson was Mr Leslie Maasdorp.

The term of the first Board of the South African Weather Service ended on 28 February 2005. Six members from the first Board, including the Chairperson, were reappointed to ensure continuity, succession planning and the retention of organisational memory. Four new Board members were appointed.

The Board is responsible for:

- Strategic leadership;
- Monitoring operational performance of management;
- The protection of the South African Weather Service's financial position;
- Ensuring that the South African Weather Service adheres to high standards of ethics and corporate behaviour;
- Reviewing and adopting the appropriate risk management and regulatory compliance policies;
- Ensuring an efficient, cost-effective and high quality South African Weather Service;
- Setting policy, standards and objectives within the framework issued by the Minister and ensuring implementation by executive management; and
- Ensuring that the majority of the South African population benefits from the public good services of the South African Weather Service.

#### BOARD COMMITTEES

The Board has constituted the following Board committees that assist in ensuring that the Board effectively executes its mandate.

## Part 2

# Corporate governance (continued)

### Risk and Audit Committee

The objective of the Risk and Audit Committee is to monitor and evaluate actual and potential risk areas relevant to the South African Weather Service as a total entity and to review a process of either termination, transfer, acceptance (tolerance) or mitigation of each risk.

The Risk and Audit Committee also monitors the financial management of the South African Weather Service, ensures that the Board members discharge their duties and responsibilities in the best interests of the South African Weather Service and monitors the internal control environment.

The committee consists of the following members:

1. Mr P Maluleke (Chairperson)
2. Mr J Lengoasa (CEO)
3. Dr J Matjila (DEAT)
4. Mr T Bouwer (DEAT CFO)
4. Mr A Venter (DEAT)
5. Mr IW Robinson
7. Auditor-General's representatives
8. Internal auditors

### Human Resources and Remuneration Committee

The objective of the Human Resources and Remuneration Committee is to recommend and advise the Board on reward and remuneration and other personnel related policies. Also to monitor succession planning of senior officers and provide guidance in this regard to the Board and to recommend and review the terms and conditions of employment of the Chief Executive Officer and top management of the South African Weather Service. The committee, in discharging this function, aims to ensure compliance with relevant legislation, including the Basic Conditions of Employment Act, the Employment Equity Act, the Labour Relations Act and the Skills Development Act.

The committee consists of the following members:

1. Ms L Sangweni-Siddo (Chairperson)
2. Mr J Lengoasa (CEO)
3. Dr J Matjila (DEAT)
4. Prof G Brundrit
5. Dr J Mphepya
6. Ms P Maqubela

### Executive/ Corporate Governance Committee (EXCO)

The objective of the Corporate Governance Committee is to ensure accountable and ethical management of the South African Weather Service and to ensure adherence to effective corporate governance by both management and the Board.

It consists of the following members:

1. Ms S Rensburg (Chairperson)
2. Mr J Lengoasa (CEO)
3. Mr P Maluleke
4. Dr J Matjila
5. Ms P Maqubela
6. Ms L Sangweni-Siddo
7. Mr L Maasdorp

### Finance and Commercial Committee

The objective of the Finance and Commercial Committee is to monitor financial management in the South African Weather Service and to ensure that all revenue, expenditure, and assets of the South African Weather Service are managed efficiently and effectively. It also ensures that the South African Weather Service executes its commercial mandate.

It consists of the following members:

1. Mr L Maasdorp (Chairperson)
2. Mr J Lengoasa (CEO)
3. Dr J Matjila
4. Prof D Swartz

## MANAGEMENT COMMITTEES

### Executive Management Committee (EMC)

The EMC, under the leadership of the CEO, consists of all general managers and the legal advisor. It is the forum through which the business of the South African Weather Service is driven. It is the pivotal point where input is developed, debated, formulated and delivered into the business in such a way that it ensures the achievement of the business plan and ensures that business best practice is implemented.

The purpose of the EMC is to support all areas of the South African Weather Service operations by:

## Part 2

# Corporate governance (continued)

- Leading the business units of the organisation;
- Ensuring the attainment of business and performance targets;
- Establishing, co-coordinating and maintaining clear directives in terms of strategy, standards, guidelines, policies and procedures;
- Exercising appropriate governance principles and quality assurance activities to identify and mitigate operational risk;
- Providing support, advice and skilled resources to all departments and where appropriate, initiating interventions to optimise group assets; and
- Ensuring effective integration, consultation and communication of inputs across departments, alliance partners and service providers.

### INTERNAL CONTROL ENVIRONMENT

In line with its mandate derived from the South African Weather Service Act and the Public Finance Management Act, the Board ensures that the South African Weather Service maintains a sustainable internal control environment.

The Board of the South African Weather Service prides itself on the fact that since agentisation in 2001, all externally audited financial statements have been unqualified.

### Enterprise Risk Management

In terms of Public Finance Management Act [sections 51(1) (a) (ii) and 76(4) (b) (e) as well as Treasury Regulation chapter 27.2.1] and the South African Weather Service Act, the Board must ensure that a risk assessment is conducted regularly to identify emerging risks of the institution. A risk management strategy, which includes a fraud prevention plan, is used to direct internal audit effort and priority and to determine the skills required of managers and staff to improve controls and to manage these risks. The strategy is clearly communicated to all officials to ensure that the risk management strategy is incorporated into the language and culture of the institution.

The risk assessment is used to highlight the high, medium and low-risk areas within the organisation and is used as a basis to formulate the Internal Audit Coverage Plan.

The South African Weather Service has developed a Risk Management Framework. It uses the framework to identify measure, evaluate, treat, monitor and communicate risks associated with all activities. Risk Management enables the identified risks to be mitigated or reduced.

The objectives of the Risk Management Framework are to:

- Align strategic objectives with supporting processes, risks and controls;
- Drive specific risk management and control processes to respond to the potential threats and opportunities;
- Provide a common understanding of how SAWS, its business processes and people, describe and prioritise objectives, risks and controls;
- Embed instinctive and consistent consideration of risk and reward in the day-to-day planning and achievement of objectives; and
- Provide clarity on SAWS' risk appetite as risks must be taken in the pursuit of opportunities.

Risk Management Framework assists the South African Weather Service in the following ways:

- Improved risk awareness and culture;
- The identification of previously unrecognised risks, control gaps and excess controls;
- Leveraging competitive advantage by focusing on the key success factors;
- Improving operational efficiency;
- Enhancing stakeholder value by reducing the adverse impact of covering downside risk and maximising upside potential;

## Part 2

# Corporate governance (continued)

- More effective risk-based decision making; and
- Viewing risk as an opportunity rather than a threat to be avoided.

### Internal audit

The Public Finance Management Act requires the establishment of an effective internal audit function under the control and direction of an Audit Committee.

Internal audit is an independent, objective assurance and consulting activity designed to add value and improve the organisation's operations.

Its objective is to assist the South African Weather Service in achieving its objectives by bringing a systematic and disciplined approach to evaluating and improving the effectiveness of risk management, control and governance processes.

The internal audit function reviews:

- The reliability and integrity of information;
- Compliance with policies and regulations contracts;
- The safeguarding of assets;
- The economical and efficient use of resources; and
- Established operational goals and objectives.

During the reporting year, Sithole Incorporated was appointed to manage the internal audit function of the South African Weather Service. SAWS internal audit function reports to the Risk and Audit Committee of the Board.

### Organisational effectiveness audit

During the reporting year the Board embarked on a process of evaluating corporate governance, effectiveness of policies, procedures and corporate plans, operational effectiveness, asset management and control, organisational capability and management information, reporting and monitoring.

The organisational audit report informed the re-alignment of the organisational structure and management processes.

### Corporate Secretariat

In order to improve the effectiveness of the Board and to facilitate communication and alignment with management, the office of the Board was enhanced with the appointment of a Corporate Secretary who also supports management with the protection of intellectual property matters and all legal matters of the South African Weather Service to ensure that legal exposure is limited and controlled.

## Part 2

# Meteorological services

## Improving the delivery of weather services to the nation

### INTRODUCTION

In Southern Africa, extreme weather conditions and weather-related natural disasters are increasing at an alarming rate. These conditions often leave a trail of social and economic hardships that impact heavily on the poor and vulnerable communities. Strategies to mitigate the impact of weather-related natural disasters are essential to support economic growth and reduce poverty over the region.

Early severe weather warning system and effective dissemination of information about impending disasters are key factors to successful disaster prevention, mitigation and preparedness. Adequate, integrated weather observation networks over Southern Africa are essential for generation of high quality weather forecasts and early warnings. Clearly, money spent on improving forecasting and early warning services should be seen as an investment in the national economy of a country and the return of investment is significant.

In this regard the South African Weather Service (SAWS) recognises that quality weather forecasts that are timely and interpreted accordingly are essential for sound decision-making for the good of the public as well as commercial clients and that it enhances the economic and sustainable development of our country. Consequently, a major strategy of SAWS is to modernise and recapitalise its observations network and infrastructure through the implementation of proven observational, scientific processing and communications technologies in order to improve public good and commercial service delivery.

### RECAPITALISATION PLAN

The first step in pursuance of this strategic objective was the compilation of a comprehensive strategy to recapitalise the infrastructure and observational network of SAWS in the next five years. The aim is to further improve in the accuracy and reliability of our forecasts and warnings by deploying a lightning detection system, sophisticated S-band weather radars and replace all old mechanical weather stations with digital semi-automatic weather stations in the next few years.

### WEATHER RADARS

Weather radars remain the most valuable severe weather warning tools available to SAWS. The deployment of the Mtata radar, that expanded the weather radar coverage

over the Eastern Cape, was one of the highlights of the year. The official opening of the Mtata radar on 1 October 2004 was a prestigious event attended by high profile delegates from the national and Eastern Cape Provincial and Local Government. The event marked the conclusion of months of hard work and dedication. Five semi-automatic weather surface observing stations were also launched and are now fully functional. The project was funded by the poverty alleviation funds of the Department of Environmental Affairs and Tourism (DEAT), the Eastern Cape Provincial Government and SAWS.



The Mtata Radar

To further enhance weather radar coverage over South Africa, three S-band radars were purchased from the USA. The first of these radars will be deployed at Skukuza and the second in the KwaZulu-Natal midlands. The first of the new radar data acquisition systems (RDAS2000) has been installed in the Cape Town radar during February 2005 as part of a stepwise implementation of this system to include the whole radar network.

### SURFACE OBSERVATIONS

The project to replace mechanical weather stations with digital semi-automatic weather stations is well under way. The design and building of electronic circuit boards and the assembling of parts for these stations was done at the Irene Weather Office workshop. The first five semi-automatic stations were installed as part of the Eastern Cape project. Manual observations of parameters such as current weather conditions, visibility and cloud types are integrated with electronic observations at the semi-automatic stations.

## Part 2

### Meteorological services (continued)

Improving the delivery of weather services to the nation



Personnel at the Irene Weather Office workshop

The switch to innovative cell-phone communication network for automatic weather stations (AWS) has been completed. This in-house developed technology has proven to be a tremendous success in terms of cost efficiency, data availability and the elimination of damage to telephone lines from lightning strikes. Lightning damage resulted in numerous problems and downtime for AWS' in the past, especially in lightning prone months such as December. In December 2004 there was no downtime for any AWS due to lightning problems.

The data capturing process was improved by the implementation of the MetCap computer program system. Noticeable improvements are:

- Data is now available closer to the time of observation in the databank.
- Observers identify possible malfunctions much faster
- A marked improvement in the quality of data is observed.
- Data flow is faster, and quality has improved by about 50% and requires less attention from observers.

The project to capture and store historical climate data from 58 selected weather stations, dating back 1883, has also been completed.

The network of 45 drifting weather buoys in the South Atlantic Ocean was maintained with the collaboration of

the National Oceanography and Atmospheric Administration (NOAA) of the United States. The annual weather buoy deployment west of Gough Island took place during October 2004 and the fixed observations platform on Tristan da Cunha was replaced. Further maritime observations were conducted during a later voyage to Marion Island. Additional deployments of weather buoys and ocean temperature profilers were also made during the December 2004 voyage over the South Atlantic Ocean in collaboration with United States and Argentinean counterparts.



Buoy development

#### WEATHER SATELLITES

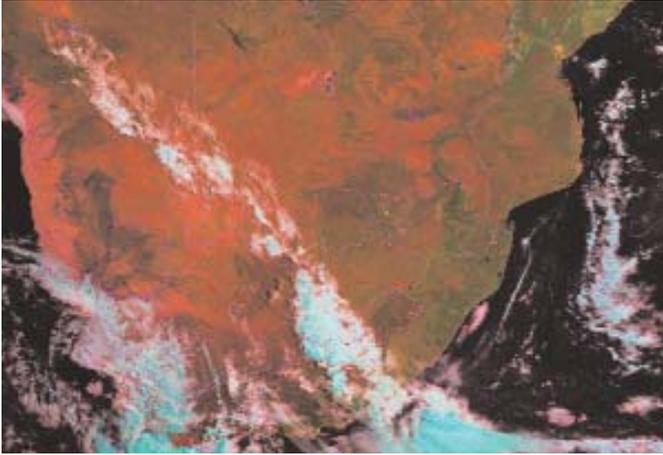
SAWS has commenced the deployment of new satellite data ground receiving stations at the main regions to receive data from the new Meteosat-8 satellite. The spatial and temporal resolution of the satellite data and images from the new satellite is significantly higher than its predecessor. The effective and optimal use of this new vastly improved data set poses big challenges to the organisation. To address these challenges, SAWS entered into partnerships with the Council for Scientific and Industrial Research's (CSIR) Satellite Application Centre, the Agricultural Research's Council's (ARC) Institute for Soil, Climate and Water as well as the University of KwaZulu-Natal to conduct research and develop practical user applications.

Information Technology's new in-house developed visualisation system for the new satellite data is a major achievement.

## Part 2

# Meteorological services (continued)

Improving the delivery of weather services to the nation



Weather satellite image

SAWS has played a significant role in METEOSAT related activities on the continent. Not only was SAWS chosen as a specialised training centre for the use and interpretation of the new satellite, especially in the Southern African Development Community (SADC), but it also obtained funding for an Outlook Activity Project on behalf of SADC.

### WEATHER FORECASTING

The forecasting products suite of SAWS improved significantly during the year through the successful introduction of a seamless weather forecasting system addressing all timescales. This system is based on the integrated use of the expanded observing network, higher resolution weather satellites, improved regional and global numerical prediction models and is underpinned by improved ensemble forecasting and seasonal forecasting techniques. This integrated system addresses the following timescales:

- 0 to 2 hours – detailed warnings of severe weather events by the use of real-time observations weather radars and satellite images.
- Up to 2 days – forecasts of daily weather elements and warnings of severe weather guided by regional and global weather prediction models.
- Up to 7 days – forecasts of daily weather elements and advisories of the potential development of severe weather guided by global ensemble models.

- Up to 14 days – guidance on rainfall and temperature trends guided by ensemble forecasting models.

The operational use of the system was supported by an improved on-the-job-training and knowledge management activities of forecasters through enhanced collaboration between researchers and forecasters in the National Forecasting Centre. Refresher training of forecasters was conducted in the form of presentations as part of the drive to build the capacity of forecasters.

The introduction of this system gave the forecasting section the confidence to issue in advance, regular press statements on the potential development of extreme weather events.

To improve service delivery to the aviation industry an Aviation Weather Display System was developed in collaboration with the National Centre of Atmospheric Research (NCAR) in Boulder, Colorado. This display system is a user-friendly workstation that provides real-time integrated global aeronautical meteorological information to the aviation industry. The information includes aerodrome reports, forecasts, en-route weather and wind conditions, and satellite and radar images. Furthermore, it is possible to superimpose different data fields and zoom into critical regions. This system will be installed in air traffic control towers and in the operational centres of major airlines in the next year and promises to be of significant economic benefit to them.



## Part 2

### Meteorological services (continued)

Improving the delivery of weather services to the nation

Figure 1 shows the root mean square errors (RMSE) of mean sea level pressure predictions of the limited area prediction model (ETA Model) of the American Weather Service run by SAWS. The graph shows a steady decrease in the RMSE of the model since January 2000. However, further development of this particular model was stopped. In the drive to continually improve the forecasting ability a new numerical weather prediction strategy was developed for the next few years. Part of the strategy is to replace the current limited area prediction model (ETA Model) of the American Weather Service with the Unified model of the UK Met Office. A portable copy of the model was obtained from the UK Met Office and first tests were conducted.

SAWS made good progress with the verification system for human forecasts and model forecasts. Systems were completed for operational verification of models against own analysis, observation stations and National Centres for Environmental Prediction (NCEP) re-analysis, and general seven-day and two-week forecasts. The first results were made available on an internal web page.

Figure 2 shows graphs of the absolute error of the maximum temperature forecast of SAWS 24 and 48 hours ahead. The mean absolute error improved from 1,79 °C in 2003/4 to 1,58 °C in 2004/5 for 24 hour forecasts and from 2,08 °C to 1,90 °C for 48 hour forecasts, respectively.

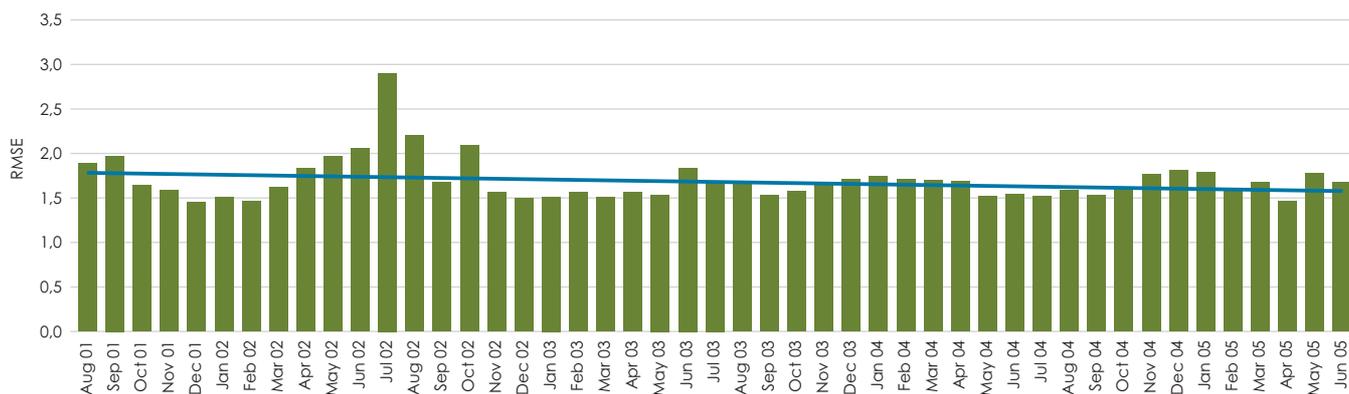


Figure 1. Monthly root mean square errors of the 24 hour forecast of mean sea level pressure, of the ETA numerical weather prediction model.

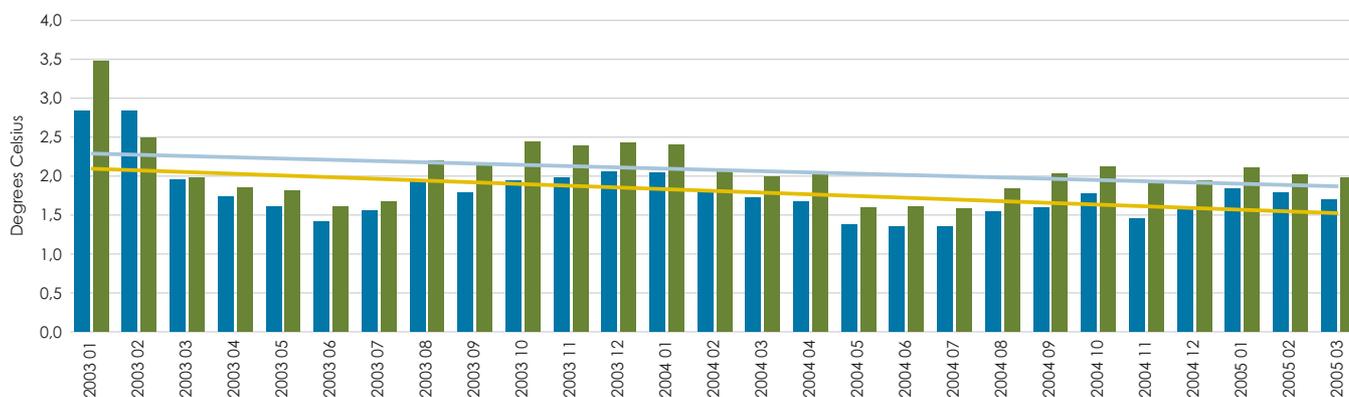


Figure 2. Absolute errors, in °C of maximum temperature forecasts, 24 and 48 hours ahead.

## Part 2

# Meteorological services (continued)

Improving the delivery of weather services to the nation

### LONGER TERM FORECAST

As stated before, new forecasting techniques to improve the accuracy and reliability of seasonal predictions were implemented. These new techniques achieved significant results with improved skill of predicting seasonal precipitation by the use of multi-model ensembles and statistical methods and were praised by international experts. The techniques were successfully used to predict the above-normal rain at the end of the previous summer. Also noteworthy is that these techniques predicted a warmer and drier than usual first half of the 2003/4 summer rainfall season over the summer rainfall areas of the country.



Seasonal forecasters in discussion

### PROVISIONING OF DATA

Important greenhouse gas datasets of the Global Atmosphere Watch (GAW) programme were excellently maintained and accepted at world data centres for 2004. The acquisition of the new CO<sub>2</sub> Gas Chromatograph at the Cape Point laboratory has ensured that international standards of measurement were adhered to, and thus it remains the longest record of CO<sub>2</sub> data in the southern hemisphere.

### INNOVATION

SAWS entered into negotiations with an industry partner to obtain funds in testing the feasibility of using unmanned aerial vehicles (UAVs) as possible seeding material delivery systems to replace the aircraft currently being used.

SAWS in collaboration with Wits University completed a three-year Rainfall Enhancement Project in the United Arab Emirates (UAE). SAWS, the Department of Water Affairs and Forestry (DWAF) and the Water Research Council was nominated for the WMO/UAE Prize on Rainfall Enhancement Research. The latest results from this research showed that seeded clouds produced about twice as much rain as their natural counterparts. The prize was awarded to the South African researchers in July 2005.

SAWS also started operations on the Pollution Monitoring Campaign funded by the Department of Environmental Affairs and Tourism and the Norwegian Government. The air-borne, air quality monitoring campaign commenced operations in the highveld and Durban south area in November 2004. These campaigns were very successful and very informative results were obtained.

Forecasts from the high resolution meso-scale weather prediction model (MM5) were merged with an air pollution dispersion model as part of the Dynamical Air Pollution Prediction System (DAPPS) project run by CSIR, Durban. Testing of the system has started at CSIR.

## Part 2

# Client services

### AVIATION INDUSTRY

The aviation industry is currently the main SAWS client. SAWS has been complimented by the major commercial airlines during various user-committee meetings for the weather-related services provided to them. These services provide essential information for flight planning and safety and are also of significant economic benefit to the major airlines.

In striving to extend this valued service to private pilots, SAWS has launched a newsletter named "Aviation Weather" targeting this niche sector."



The Africa Aerospace and Defence Air Show

### CLIMATE DATA CLIENTS

The Climate Information office at SAWS answered 7 230 enquiries from commercial and public good clients in the reporting year. Public good clients made up 43% of these enquiries of which the bulk (28%) came from government departments and internal and external researchers. Eight percent of the enquiries were submitted by schools.

Commercial related enquiries from the construction, engineering and retail industries were 29% of the total and 25% were from the legal and insurance industries. Most of the enquiries from the insurance industry related to lightning verification. The implementation of the new lightning detection system over the country in the next financial year will enable SAWS to significantly improve services in this regard.

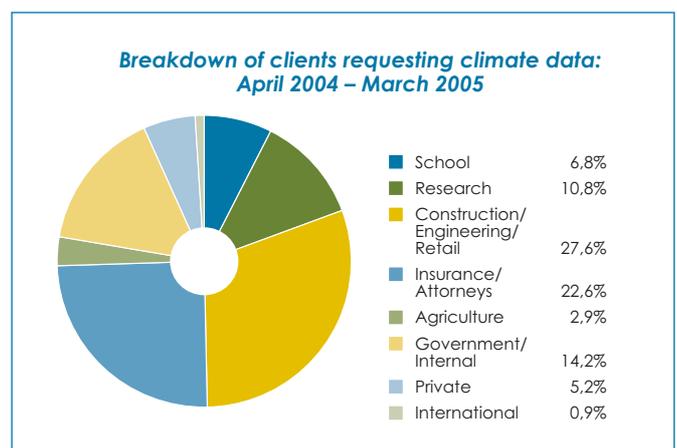
October 2004 was a milestone month in the Climate Information Section as it marked the month when the first substantial commercial historical climate information analysis project was undertaken. Up to this time, the main business of the section was the supply and sale of climate data and information. The completion of this analysis project marked a new era in the approach to commercial ventures in the office.

The 2004/2005 financial year was also characterised by an increase in the importance of the regional climate information in the regions serviced by the Bloemfontein, Cape Town, Durban and Port Elizabeth regional offices. The climate information activity gained more focus and a vast increase in the number of enquiries and the amount of income was recorded from these centres.

The new development of the CLIMOS computer program was finalised. This enables SAWS to produce timely reports of near-real time climate data and will enhance service delivery next year.

Two climate data related publications *Climate Controls* and *Climate Regions* were published. These publications are a culmination of years of extensive in-house scientific research and an update of the *Climate of South Africa* series first published in 1965.

Another publication in the series which describes the latest spatial and temporal variations of sunshine and cloudiness over South Africa was completed by the Climate Section and will be published in the next reporting year.



## Part 2

### Client services (continued)

#### AWARENESS RAISING

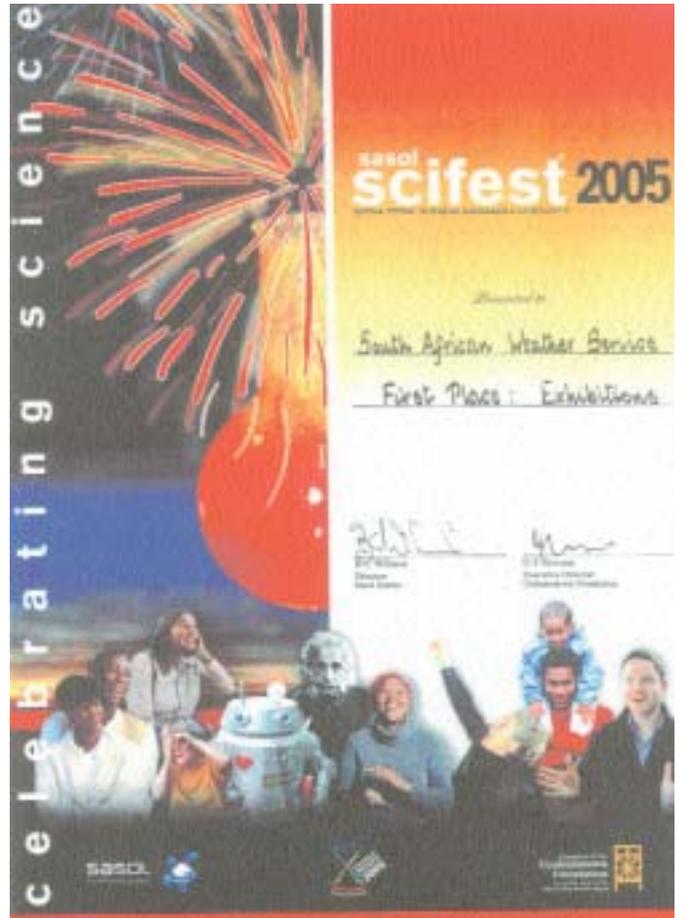
The main aim of awareness raising is bringing members of the public closer to understanding weather and climate-related issues and to appreciate the value of the forecast and warning services. With this aim SAWS celebrated World Meteorological Day (celebrated on 23 March annually) in Bloemfontein. Leaders from the private sector, government and civil society were targeted. Schools from the greater Bloemfontein area were part of the event, which included an exhibition of meteorological sciences and careers in the sector. SABC Radio and Television and other regional media covered the event.



World Meteorological Day celebration in Bloemfontein



Learners participating in a meteorology-science workshop at Sasol Scifest



Best Exhibition Award

The yearly participation of SAWS in the Grahamstown Sasol Scifest is getting bigger and better. This year the meteorology-science workshops were attended by more than 5 000 learners from all over South Africa. The exhibition also won a coveted 'Best Exhibition Award' at the festival for its scientific content.

## Part 2

### Client services (continued)

SAWS also published and distributed 2 000 copies of the Weather Myths booklet which explored folklore and traditional beliefs and views on weather in South Africa. The book was well received and will be reviewed in the next financial year.

#### COMMUNITY PARTICIPATION

The Eastern Cape Radar and AWS project ensured the temporary and permanent employment of people in the selected villages: Highbury, Mazzepa Bay, Coffee Bay, Mt Fletcher, Butterworth and Cofimvaba. A total of 10 matriculants were trained in weather observations and in

the operation of the automated weather stations. These 10 matriculants are now employed by SAWS at the automated weather station sites to operate this infrastructure. In addition, four security personnel are also employed at the Highbury radar site to provide 24-hour security of the facility. Temporary employment of people in these villages was necessary for the construction of the radar building, fencing, cleaning and security services. The skills transfer and training which took place during this period was essential for promoting future employment of these community members.



Community members involved in the building of the weather station



Preparation of an AWS site by community members

## Part 2

# Corporate services

### CORPORATE SERVICES

The main function of Corporate Services is to provide institutional support to the organisations core business. The business division strives to provide efficient effective timely responses to business needs as expressed by clients.

Corporate Services will develop SAWS into an "Employer of Choice" over the next three years. To achieve this we are implementing the Workplace Skills Plan, the Transformation Strategy, rolling out our newly approved Performance Management System (PMS) and streamlining processes such as Human Resource Management.

There are four business units that make up Corporate Services namely: Human Resource Management (HRM), Information, Communications and Technology (ICT), Supply Chain Management (SCM) and International Liaison.

### HUMAN RESOURCE MANAGEMENT

The vision of Human Resource Management (HRM) is to recruit, retain and develop SAWS human capital into the quality and competency framework required to fulfil SAWS' objectives. In so doing, it will seek to ensure that staff is employed on terms and conditions that balance SAWS' need to be financially viable, innovative and competitive with an approach to staff that is equitable, fair and caring.

The strategic move towards agentisation of SAWS has posed a challenge on the Human Resource Management capacity and requirements. The competencies and capacities in HRM are being enhanced and supported by the recent purchase of an HR information management system to ensure decentralisation and self-service functions for managers in managing their staff.

Other critical HRM projects for the period under review were Project Cirrus, a business process re-engineering exercise of the HRM business unit which resulted in leveraging our human capital in line with our revised strategy and competency needs. Some elements of Project Cirrus were: identifying the skills gap within SAWS and to identify and attract the appropriate competency needs within SAWS; initiating the reward and remuneration strategy to ensure that SAWS remuneration is competitive fair and market related; completion of

policies to maintain a compliant work environment for all staff; developing the Employment Equity Plan to meet the transformational needs within SAWS and broader South Africa; and initiating a four-tiered training strategy focusing on developing the innovation and commercialisation competency framework for SAWS. All of these have resulted in a more effective and streamlined Human Resources Management business unit that focuses on recruiting appropriate skills, training and developing a critical mass or pool of talent in the meteorological services field to ensure sustainability of skill over time.

The new Performance Management System (PMS) and policy was developed followed by training sessions to all employers to support its rollout. An important feature of the new PMS is the introduction of a 360° evaluation format and a scorecard calculator to assess performance. Training was given to managers on setting indicators for success in a measurable and objective manner to ensure fairness and equity. The PMS will be implemented on the 1st of April 2005.



Students in training at SAWS

### INFORMATION, COMMUNICATIONS AND TECHNOLOGY

The role of Information, Communications and Technology has been expanding within SAWS to cover issues such as Information, Technology, Infrastructure Library (ITIL) compliance, security, program development and the introduction of more efficient processes to develop a functional e-environment. We are currently investigating the upgrade of our supercomputing

## Part 2

### Corporate services (continued)

capability with a view to begin using the Unified Model of the UK Met Office. The Unified Model will greatly enhance the modelling capability and allow SAWS to predict at much higher confidence levels.

A revamped interactive SAWS website was launched in September 2004. Our website is a critical tool in communicating the Public Good to the broader public and to provide much needed information on climatic warnings. SAWS website was implemented with registration options for customer profiling and eventual billing of services. There has been a technological improvement on the website to reduce web spiders. Plans are under way to introduce a web-based payment system in the next financial year for selling dedicated web products and to purchase Web Trends, a system which will allow the disaggregation and analysis of web users and their needs.

A receiving system for the new Meteosat Second Generation satellite was installed. A display system to create images from the data received via this system was also developed. This display system was rated by the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT) as one of better systems currently available.

A new software tool to extract data from the climate database and to create specific climate products was developed. This software tool will improve quality and accurate climate information to the public.

ICT personnel also provided support to the World Meteorological Organization-Voluntary Cooperation Programmes (VCP) in countries such as Swaziland to assist with the implementation of a communication and forecasting display system. The Zambian Weather Service requested SAWS, through WMO, to do an assessment of their communication system for national and international exchange of data.

Our team developed a new data-capturing software package, METCAP, which was successfully commissioned and rolled out. This has resulted in efficiencies in data collation and quality assurance of data before it is captured on the database.

#### **SUPPLY CHAIN MANAGEMENT AND ADMINISTRATION**

The challenge to transform procurement into a fully fledged Supply Chain Management business unit, as prescribed by National Treasury, has resulted in the development of a new SCM policy which was approved by the Board. It will be rolled out in the new financial year and plans are under way to purchase an e-procurement system. Several SCM staff has received training on SCM by the South African Management Development Institute (SAMDI), a recognised public sector training institution.

SCM introduces new challenges in terms of institutional structure, competencies and capacities in this business unit. In line with the recently approved policy, an SCM implementation plan will be effected in the new financial year, with capacity building of all users as an important element. We also hope to decentralise certain procurement functions to regional offices over time.

SAWS has exceeded the Black Economic Empowerment (BEE) procurement target set by the Department of Environmental Affairs and Tourism (DEAT) of 40% for total affirmative procurement for the year under review and our goal is to achieve 60% in the new financial year.

Occupational Health and Safety is a priority which will be embarked upon in the new financial year. A recent Occupational Health and Safety legal compliance audit resulted in our obtaining a 76% compliance result. We have implemented the recommended changes and improved the safety in the buildings and facilities. Our target is to obtain a zero defect environment free of occupational hazards.

## Part 2

# International liaison

The field of meteorology requires rapid exchange of data and information from afar and between nations of the world. This in turn requires strong cooperation between national weather services and global centres. The South African Weather Service's International Liaison business unit is responsible for ensuring cooperation and the existence of cordial relations between all the international role-players.

The key partners of the South African Weather Service are: the World Meteorological Organization (WMO), its members and the national Department of Foreign Affairs (DFA). The key highlights during the 2004/5 period include development of a regional cooperation programme between national meteorological services in the Southern African Development Community (SADC) region, SAWS has played an active role in the transformation of WMO, SAWS' technical contributions and exchange of information and SAWS' active participation in global weather-related disaster mitigation.

SAWS has lobbied and advocated a proactive approach amongst heads of national meteorological services in the region. The approach encourages the enhancement of weather observations, development and improvement of an integrated service with applications to agriculture, health, water resources management, disaster management and many other sectors. The approach has been raised by SAWS at various international gatherings. A programmatic approach was adopted in the 2004 Sub-sectoral Committee on Meteorology (SCOM) meeting in Gaborone where sub-committees (countries in SADC) were appointed to look at the various areas of cooperation. The specific areas and regional programmes are to be presented in the next SCOM meeting in 2005.

In the various meetings of the regional national meteorological services, a number of impediments (eg lack of training, lack of financial resources, uncoordinated and unsustainable aid and projects from national weather service of the most developed countries) have been identified which are related to poverty and lack of funds in the region. These impediments were also identified as reasons for the general poor delivery of weather services in the region. SAWS, as a member of the Executive Council of WMO,

raised these challenges of the region at the Executive Council's meetings. These challenges and the accompanying remedial action by the WMO, are clearly captured in the Executive Committee (EC) resolutions and channelled to a committee of the EC (SAWS is a member of this committee) for an action plan and reporting in the next congress meeting of the WMO. In addition, SAWS active participation has highlighted the need for updating the role and operation of the national meteorological services to be aligned to socio-economic and sustainable development goals, particularly in developing countries.



A planning meeting of the Voluntary Cooperation Programme

In line with the international cooperation goals of the WMO, SAWS has been actively sending its technical staff into international meetings, training programmes and conferences to share and gain knowledge and skills for local and regional applications. SAWS has also been receiving a number of experts, students and exchange staff from other national meteorological services and related bodies. All these visits have been targeted at sharing of knowledge, expertise, methodology towards the improvement of weather services and related socio-economic applications.

The tsunami event in South East Asia highlighted once more the devastating effect of natural disasters on society and the need for improved cooperation between global national weather services. WMO was instrumental in restoring the damaged meteorological infrastructure of the affected countries by lobbying

## Part 2

### International liaison (continued)

support from member countries. In recognition of the strategic benefits of global data to local and regional weather service delivery, SAWS also contributed some of its unused and redundant instrumentation to Sri Lanka.

In addition, SAWS participated actively in an urgent and important Jakarta meeting on data communications. This meeting was attended by information technology personnel from major national weather services and resolved on efficient and effective methods of data communications as a part of a risk management plan to mitigate global weather-related disasters.

In essence, major strides have been achieved in this thrust towards cooperation in the provision of weather services. SAWS has played an important role both in the SADC region through SCOM and also in the WMO. The courtesy visit to South Africa and inspiring press address of the Secretary-General of the WMO, Mr Michel Jarraud, during his November 2004 visit also attests to the important role SAWS is playing in the region and globally. SAWS continues to enjoy warm and cordial relations with national meteorological services in the world. Global data is received timely by SAWS for processing and production of weather and climate products and applications for the benefit of the nation and the region.





## Part 3

# Audit reports, financial statements and other financial information

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**36 Balance sheet**

**37 Income statement**

**38 Statement of changes in equity**

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## Part 3



### Report of the Risk and Audit Committee

For the year ended 31 March 2005

We are pleased to present our report for the financial year ended 31 March 2005.

#### RISK AND AUDIT COMMITTEE MEMBERS AND ATTENDANCE

The Audit Committee consists of the members listed hereunder. During the current year seven meetings were held.

Name of member	Number of meetings attended
Mr VP Maluleke	7
Mr IW Robinson	6
Dr JN Mphepya	3
Ms L Sangweni-Siddo	1

#### RISK AND AUDIT COMMITTEE RESPONSIBILITY

The Audit Committee reports that it has complied with its responsibilities arising from section 38 (1)(a) of the PFMA and Treasury Regulation 3.1.13. The Audit Committee also reports that it has adopted appropriate formal terms of reference as its Audit Committee charter, has regulated its affairs in compliance with this charter and has discharged all its responsibilities contained therein.

#### THE EFFECTIVENESS OF INTERNAL CONTROL

Based on the various reports of the internal auditors and the report of the independent auditors on the annual financial statements, the Audit Committee is of the opinion that no significant or material non-compliance with prescribed policies and procedures occurred. Internal audit have reported significant uncontrolled risks in the information computerised

Technology area. These report items are currently being addressed by management and an outside consultant as matters of urgency and importance.

#### THE QUALITY OF MONTHLY AND QUARTERLY REPORTS SUBMITTED IN TERMS OF THE ACT

The Audit Committee is satisfied with the content and quality of the reports prepared by the Acting Chief Financial Officer.

#### EVALUATION OF FINANCIAL STATEMENTS

The Audit Committee has

- reviewed and discussed with the external auditors and the Acting Chief Financial Officer the audited annual financial statements to be included in the annual report.

The Audit Committee concurs and accepts the conclusion of the external auditors and has noted the emphasis of matter on the annual financial statements and is of the opinion that the audited annual financial statements be accepted and read together with the report of the independent auditors.

**VP Maluleke**

*Chairperson of the Risk and Audit Committee*

Date: 28 July 2005

# Part 3



## Report of the Auditor-General For the year ended 31 March 2005



A U D I T O R – G E N E R A L

### 1. AUDIT ASSIGNMENT

The financial statements as set out on pages 36 to 59, for the year ended 31 March 2005, have been audited in terms of section 188 of the Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996), read with sections 4 and 20 of the Public Audit Act, 2004 (Act No 25 of 2004) and section 17 (2)(b) of the South African Weather Service Act, 2001 (Act No 8 of 2001). These financial statements, the maintenance of effective control measures and compliance with relevant laws and regulations are the responsibility of the accounting officer. My responsibility is to express an opinion on these financial statements, based on the audit.

### 2. NATURE AND SCOPE

The audit was conducted in accordance with Statements of South African Auditing Standards. Those standards require that I plan and perform the audit to obtain reasonable assurance that the financial statements are free of material misstatement.

An audit includes:

- examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements;
- assessing the accounting principles used and significant estimates made by management; and
- evaluating the overall financial statement presentation.

Furthermore, an audit includes an examination, on a test basis, of evidence supporting compliance in all material respects with the relevant laws and regulations which came to

my attention and are applicable to financial matters.

The audit was completed in accordance with Auditor-General Directive No 1 of 2005.

I believe that the audit provides a reasonable basis for my opinion.

### 3. AUDIT OPINION

In my opinion, the financial statements fairly present, in all material respects, the financial position of SAWS at 31 March 2005 and the results of its operations and cash flows for the year then ended, in accordance with South African Statements of Generally Accepted Accounting Practice (GAAP) and in the manner required by the Public Finance Management Act, 1999 (Act No 1 of 1999) (PFMA).

### 4. EMPHASIS OF MATTER

Without qualifying the audit opinion expressed above, attention is drawn to the following matters:

#### 4.1 Donor funding

SAWS did not have adequate controls in place to monitor the progress of donor funded projects against the funds donated for a specific project. This increased the risk of overspending on donor funds and incurring additional expenditure to finalise projects at own cost.

#### 4.2 Non-compliance with laws, rules and regulations

- SAWS did not maintain a register of interests in contracts by members of the accounting

## Part 3



### Report of the Auditor-General (continued) For the year ended 31 March 2005

authority and executive management, as required by section 50(3) of the Public Finance Management Act (PFMA), although this was initiated subsequent to year-end.

- Whilst an investment policy was implemented during the 2004/2005 financial year, it does not comply with all the requirements set out in Treasury Regulation 31.3.
- The 2004/2005 annual budget was not submitted timeously, as required by section 53 of the PFMA.
- The requirements of the Department of Environmental Affairs and Tourism (DEAT) with regard *inter alia*, to the submission of a cost recovery plan for the potential increase of revenue, have not been fully complied with.

#### 4.3 Internal control weaknesses

The accounting authority must, in terms of section 51(1) of the PFMA, ensure that a public entity has and maintains effective, efficient and transparent systems of financial and risk management and internal control. The audit of SAWS revealed various shortcomings in the internal control system, which included the following:

- SAWS has been required to develop its own policies and procedures since its creation as a public entity in 2001. Whilst the DEAT policies continued to be applied as an interim measure and progress is being made this matter should now be receiving focused attention.
- Sundry debtors were not properly managed as no monthly statements have been prepared for these debtors.

- Debtors in excess of R23 million (64,1% of total debtors) on the debtors' age analysis have been outstanding for longer than 120 days.
- Suspense accounts were not cleared on a regular basis as the creditor suspense account had a substantial balance at year-end.
- Leave reconciliations were not performed properly.
- VAT claims were not always made correctly and could have resulted in penalties being instituted by the South African Revenue Service.

#### 4.4 Land

According to the South African Weather Service Act, 2001 (Act No 8 of 2001) a portion of land was transferred to SAWS on commencement of the Act. The title deeds of the land which is valued at R50 million, have not yet been transferred to SAWS.

### 5. APPRECIATION

The assistance rendered by the staff of the South African Weather Service during the audit is sincerely appreciated.

**GO Randall**  
*for Auditor-General*

17 August 2005



### Approval by the Board

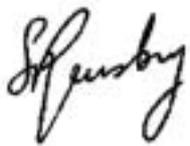
For the year ended 31 March 2005

The board of the South African Weather Service is responsible for the maintenance of adequate accounting records and the preparation and integrity of the annual financial statements and related information. The financial statements have been prepared in accordance with Generally Accepted Accounting Practice.

The board is also responsible for the systems of internal control. These are designed to provide reasonable but not absolute assurance as to the reliability of the financial statements, and to adequately safeguard, verify and maintain accountability of assets, and to prevent and detect material misstatement and loss. The systems are implemented and monitored by suitably trained personnel with an appropriate segregation of authority and duties. Nothing has come to the attention of the board to indicate that any material breakdown in the functioning of these controls, procedures and systems has occurred during the year under review.

The annual financial statements are prepared on a going concern basis. Nothing has come to the attention of the board to indicate that the South African Weather Service will not remain a going concern for the foreseeable future.

The annual financial statements set out on pages 36 to 59 were approved by the board on 27 July 2005, and signed on its behalf by:



*Chairperson of the Board*



*Chief Executive Officer*

## Part 3



### Accounting authority's report

For the year ended 31 March 2005

The Accounting Authority hereby presents its report, which forms part of the audited financial statements of the organisation for the year ended 31 March 2005.

#### NATURE OF BUSINESS

The South African Weather Service is a statutory organisation governed by the South African Weather Service Act, No 8 of 2001. It is primarily engaged in the provision of weather services on a commercial and public good basis.

#### FINANCIAL RESULTS

Full detail of the financial results for the year under review are set out on pages 36 to 59.

#### GROSS REVENUE

Gross revenue increased from R139,9 million in 2004 to R146,1 million in 2005. This represents a 4% increase which is mainly attributed to the following:

- an increase in government grant of R16,3 million from the previous year.
- a decrease in aviation income of R4,9 million from the previous year.
- a decrease in project-related income of R2,5 million from the previous year.

#### OPERATIONS

There has been no significant changes to operations carried out by the South African Weather Service. The increase of service provision on a commercial basis has become a strategic objective which is currently being installed. Operations' details are discussed in part 2 of this annual report.

No events with a material effect on the South African Weather Service or its annual financial statements occurred subsequent to the balance sheet date to this report.

#### EXECUTIVE AND SENIOR MANAGERS' INTEREST IN CONTRACTS

No material contracts involving the interests of executive or senior managers were entered into in the current year.

## Part 3



### Accounting authority's report (continued) For the year ended 31 March 2005

#### BOARD AND COMMITTEE MEETINGS FROM 1 APRIL 2004 UNTIL 31 MARCH 2005

	Other responsibilities	Board meetings		Executive Committee		Risk and Audit Committee		Human Resource and Remuneration Committee		Commercial and Finance Committee		Programmes Committee		Total
		R	No	R	No	R	No	R	No	R	No	R	No	
Brundrit GB	10 002	3	8 226	1	2 741									20 969
Maasdorp L	4 900	3	8 223	1	1 960					2	3 920			19 003
Maluleke VP	25 856	5	13 708	4	5 684	7	13 328							58 576
Maqubela NP	34 684	5	13 711	4	7 644	2	3 920	4	7 840	2	3 920	1	1 960	73 679
Rensburg S	31 921	5	22 156	4	19 736	1	2 640			1	2 640			79 093
Mphepya JN (Appointed 15/09/2004)	13 711	1	2 744			3	5 880	3	5 880	3	5 880	1	1 960	36 055
Robinson IW (Appointed 15/09/2004)	5 824	2	5 482			6	15 430	2	3 920	3	5 880			36 194
Sangweni- Siddo L	16 347	4	10 967	1	1 764			3	5 880					34 958
Matjila J		3		1				2				1		
Swartz DI (Resigned 24/08/04)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

#### ADDRESSES

Registered office: South African Weather Service  
442 Rigel Avenue South  
Erasmusrand  
Pretoria  
0181

Postal address: Private Bag X097  
Pretoria  
0001

#### AUDITORS

The South African Weather Service is a public entity. It is audited by the Auditor-General.



**Sizeka Rensburg**

Chairperson of the Board  
28 July 2005

## Part 3



### Balance sheet

As at 31 March 2005

#### ASSETS

##### Non-current assets

Property, plant and equipment  
Investment property

##### Current assets

Inventory  
Trade and other receivables (including prepayments)  
Cash and cash equivalents

#### TOTAL ASSETS

#### EQUITY AND LIABILITIES

##### Reserves

Non-distributable reserves  
Accumulated profits

##### Non-current liabilities

Long-term post-retirement provision

##### Current liabilities

Short-term portion of long-term borrowings  
Trade and other payables  
Provisions  
Donor funding

#### TOTAL EQUITY AND LIABILITIES

Notes	2005 R	2004 R
	94 409 191	65 877 326
4	54 918 238	46 627 326
5	39 490 953	19 250 000
	65 367 194	42 713 197
6	711 488	675 964
7	13 948 363	19 355 362
8	50 707 343	22 681 871
	<b>159 776 385</b>	<b>108 590 523</b>
	106 790 819	65 031 484
	69 879 995	53 568 752
	36 910 824	11 462 732
	15 988 388	14 019 000
10	15 988 388	14 019 000
	36 997 178	29 540 039
9	–	851 476
11	23 736 825	14 882 187
12	8 736 863	8 500 649
13	4 523 490	5 305 727
	<b>159 776 385</b>	<b>108 590 523</b>



## Income statement

For the year ended 31 March 2005

	Notes	2005 R	2004 R
<b>Revenue</b>	14	146 136 065	139 854 654
Selling and administrative expenditure		(1 459 770)	(793 962)
Employee costs		(65 717 986)	(59 820 058)
Depreciation		(9 130 989)	(9 160 440)
Other operational expenditure		(51 338 368)	(52 873 986)
Stock adjustments		141 722	(160 361)
<b>Profit from operations</b>	15	18 630 674	17 045 847
Finance costs	16	(241 633)	(729 056)
Income from investments	17	2 220 294	1 403 708
<b>Net profit for the year</b>		<b>20 609 335</b>	<b>17 720 499</b>

## Part 3



### Statement of changes in equity

For the year ended 31 March 2005

	Non- distributable reserve R	Accumulated profit/(loss) R	Total R
<b>Balance at 31 March 2003</b>	<b>58 339 370</b>	<b>(1 561 943)</b>	<b>56 777 427</b>
Under-provision of post-retirement medical aid expenses in prior periods	–	(10 706 442)	(10 706 442)
<b>Restated balance at 31 March 2003</b>	58 339 370	(12 268 385)	46 070 985
Asset revaluation reserve expensed	(6 010 618)	6 010 618	–
Land valuation	1 240 000	–	1 240 000
Net profit for the year	–	17 720 499	17 720 499
<b>Balance at 31 March 2004</b>	<b>53 568 752</b>	<b>11 462 732</b>	<b>65 031 484</b>
Asset revaluation reserve expensed	(4 838 757)	4 838 757	–
Land valuation	21 150 000	–	21 150 000
Net profit for the year	–	20 609 335	20 609 335
<b>Balance at 31 March 2005</b>	<b>69 879 995</b>	<b>36 910 824</b>	<b>106 790 819</b>



## Cash flow statement

For the year ended 31 March 2005

### CASH FLOW FROM OPERATING ACTIVITIES

Notes	2005 R	2004 R
<b>Profit for the year</b>	<b>20 609 335</b>	<b>17 720 499</b>
<b>Adjustment for non-cash and other items</b>		
Depreciation	9 130 989	9 160 440
Interest received	(2 220 294)	(1 403 708)
Interest paid	241 634	729 056
Doubtful debt provision	–	11 506 033
Post-retirement medical aid provision	–	1 566 000
Unrealised foreign exchange loss/(profit)	–	10 933
Inventory cost adjustment	–	(39 893)
Profit on disposal of fixed assets	(107 852)	(226 845)
<b>Operating profit before working capital changes</b>	<b>27 653 812</b>	<b>39 022 516</b>
<b>Working capital changes</b>	<b>13 680 089</b>	<b>(11 425 945)</b>
(Increase)/decrease in inventory	(35 525)	336 331
(Increase)/decrease in trade and other receivables	5 406 999	(9 607 399)
Increase/(decrease) in trade and other payables	8 854 638	(5 573 826)
Increase/(decrease) in provisions	236 214	(1 848 232)
(Decrease)/increase in donor funding	(782 237)	5 267 181
Cash generated from operations	<b>41 333 901</b>	<b>27 596 571</b>
Interest paid	(241 634)	(729 056)
Interest received	2 220 294	1 403 708
<b>Net cash inflow from operating activities</b>	<b>43 312 561</b>	<b>28 271 223</b>

## Part 3



### Cash flow statement (continued) For the year ended 31 March 2005

	Notes	2005 R	2004 R
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>			
Additions to property, plant and equipment		(16 525 509)	(6 893 940)
Proceeds from disposal of property, plant and equipment		120 508	303 022
<b>Net cash outflow from investing activities</b>		<b>(16 405 001)</b>	<b>(6 590 918)</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>			
(Decrease)/increase in long-term liabilities		1 969 388	(774 201)
(Decrease)/increase in short-term liabilities		(851 476)	(4 640 101)
<b>Net cash outflow from financing activities</b>		<b>1 117 912</b>	<b>(5 414 302)</b>
<b>Net increase in cash and cash equivalents</b>		<b>28 025 472</b>	<b>16 266 003</b>
Cash and cash equivalents at beginning of year	8	22 681 871	6 415 868
<b>Cash and cash equivalents at end of year</b>		<b>50 707 343</b>	<b>22 681 871</b>



## Notes to the annual financial statements

For the year ended 31 March 2005

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### 1. PRESENTATION OF FINANCIAL STATEMENTS

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These financial statements have been prepared on the historical cost basis and are presented in South African rand since that is the currency in which the majority of the South African Weather Service's transactions are denominated.

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### 2. ADOPTION OF SOUTH AFRICAN ACCOUNTING STANDARDS

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In the current year, the South African Weather Service has adopted the following South African Accounting Standards for the first time:

AC123 property, plant and equipment

AC123, revaluations of investment property are undertaken yearly so as to enable the carrying amount to be sufficiently close to the fair value amount. The item is carried at annually revalued amounts. The revaluation increase is credited to the revaluation surplus.

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### 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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The financial statements have been prepared under the historical cost basis, except for the revaluation of land and are presented in South African rand.

The financial statements have been prepared in accordance with South African Statements of Generally Accepted Accounting Practice. The principal accounting policies adopted in the preparation of these financial statements are set out below and are consistent in all material respects with those applied in the previous year.

#### Revenue recognition

Revenue comprises fees levied for the supply of weather related information to the aviation industry as well as other users. Revenue from information fees levied is recognised when the information is supplied to the customer.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the interest rate applicable. Other income, mainly the letting of aircraft, is recognised when the service is rendered to the customer.

Project income received is recognised together with the respective expenses in the income statement. Monies received from donors are recorded as a liability against which expenses are charged, surpluses are either paid back or recognised in the income statement depending on terms of the particular contract.

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

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### 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

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#### The South African Weather Service as a lessee

Rentals payable under operating leases are charged to income on a straight-line basis over the term of the relevant lease.

#### Foreign currencies

Transactions in currencies other than the reporting currency (rands) are initially recorded at the rates of exchange ruling on the dates of the transactions. Monetary assets and liabilities denominated in such currencies are retranslated at the rates ruling on the balance sheet date. Exchange differences arising on the settlement of monetary items or on reporting an enterprise's monetary items at rates different from those at which they were initially recorded are recognised as income or expenses in the period in which they arise.

The South African Weather Service did not enter into forward contracts and options in order to hedge its exposure to foreign exchange risks, during the financial year under review.

Unrealised gains and losses arising from currency fluctuations are recognised in the income statement.

#### Government and other grants

Government and other grants are accounted when they become receivable and recognised on a monthly basis to match the grants with the related costs which they are intended to compensate.

#### Property, plant and equipment and depreciation

Revaluations are performed with sufficient regularity using fair values at the balance sheet date. Any revaluation increase arising on the revaluation of land and buildings is credited to the properties revaluation reserve, except to the extent that it reverses a revaluation decrease for the same asset previously recognised as an expense, in which case the increase is credited to the income statement to the extent of the decrease previously charged. A decrease in carrying amount arising on the revaluation of land and buildings is charged as an expense to the extent that it exceeds the balance, if any, held in the properties revaluation reserve relating to a previous revaluation of that asset.

On the subsequent sale or retirement of a revalued property, the attributable revaluation surplus remaining in the revaluation reserve is transferred to accumulated profits.

All other items of property, plant and equipment are stated at historical cost less accumulated depreciation.



## Notes to the annual financial statements (continued)

For the year ended 31 March 2005

**3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)****Property, plant and equipment and depreciation (continued)**

Depreciation is charged so as to write off the cost or valuation of assets over their estimated useful lives, using the straight-line method, on the following bases:

	<b>2005</b>	2004
Buildings-lease improvements	10	10
Commercial property	–	–
Aircraft	4	4
Motor vehicles	5	5
Meteorological instruments	10	10
Office equipment	3	3
Computer equipment and software	3	3
Library books and equipment	3	3
Furniture and fittings	6	6
Tools and other equipment	5	5

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, the term of the relevant lease.

Lease improvements on buildings are stated at cost and are depreciated over their expected useful lives, where shorter, the term of the lease.

The gain or loss arising on the disposal or retirement of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in income.

Repairs and maintenance to fixed assets are charged to the income statement in the period in which they are incurred.

**Investment property**

Investment property, which is property held to earn rentals and/or for capital appreciation, is stated at its fair value at the balance sheet date.

**Inventories**

Inventories are stated at the lower cost and net realisable value. Net realisable value represents the estimated selling price less all estimated cost to completion and cost to be incurred in marketing, selling and distribution. Inventory consists of consumable goods only and not held for resale. Cost is determined on the following basis:

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

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### 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

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#### Inventories (continued)

Consumable goods are valued using the average cost basis.

Redundant and slow moving stocks are identified and written down with regard to their estimated economic or realisable values.

#### Impairment

At each balance sheet date, the South African Weather Service reviews the carrying amounts of its tangible assets to determine whether there is any indication that those assets have suffered impairment. If any such indications exist, the recoverable amount of the asset is estimated in order to determine the extent of the impairment.

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. Impairment losses are recognised as an expense immediately.

#### Financial instruments

##### *Financial assets*

The group's principal financial assets are bank balances and cash and trade and other receivables.

Trade and other receivables are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts.

Upfront payments made by the South African Weather Service, to suppliers of goods/services which, at end of period, are yet to be provided to the organisation, are recognised as prepayments in the balance sheet.

##### *Financial liabilities and equity instruments*

Financial liabilities and equity instruments are classified according to the substance of the contractual arrangements entered into.

Significant financial liabilities include interest-bearing liabilities and trade and other payables.

Interest-bearing liabilities are recorded at the proceeds received, net of direct issue costs. Finance charges, including premiums payable on settlement or redemption, are accounted for on an accrual basis and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.



## Notes to the annual financial statements (continued)

For the year ended 31 March 2005

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### 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

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#### Financial instruments (continued)

Trade and other payables are stated at their nominal value.

#### Provisions

##### *Liabilities*

Provisions for liabilities are recognised when the South African Weather Service has a present obligation as a result of a past event and it is probable that this will result in an outflow of economic benefits that can be reliably estimated.

##### *Doubtful debts*

Provisions for doubtful debts are recognised when the South African Weather Service's outstanding debtors are 120 days and above.

#### Post-retirement medical aid contribution

The entity operates both defined contribution and defined benefit plans. The plans are generally funded by payments from the entity and employees, taking account of the recommendations of independent qualified actuaries. For defined benefit plans, the defined benefit obligation, the related current service cost, and, where applicable, the past service cost are determined by using projected unit credit method.

A portion of actuarial gains and losses is recognised as income or expense if the net cumulative unrecognised actuarial gains and losses at the end of the previous reporting period exceed the greater of:

- 10% of the present value of the defined benefit obligation at the date before deducting plan assets, or
- 10% of the fair value of any plan assets at that date.

The portion of actuarial gains and losses to be recognised is the excess or deficit referred to above, divided by the expected average remaining working lives of the employees participating in the plan.

Payments to defined contribution retirement benefit plans are charged to the income statement in the year to which they relate.

#### Retirement benefits

Contributions to the defined contribution plans are charged to the income statement as occurred.

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

#### 4. PROPERTY, PLANT AND EQUIPMENT: 2005

Cost or valuation	Opening	Additions	Disposals	Revalue	Closing
	balance				balance
	R	R	R	R	R
Building-lease improvements	1 880 429	–	–	–	1 880 429
Commercial property	10 200 000	–	–	909 047	11 109 047
Aircraft	9 712 250	99 485	–	–	9 811 735
Motor vehicles	1 957 317	–	–	–	1 957 317
Meteorological instruments	22 264 079	14 302 859	–	–	36 566 938
Office equipment	222 797	280 077	–	–	502 874
Computer equipment and software	4 002 374	7 417 876	(29 474)	–	11 390 776
Computer equipment: leased	8 033 282	–	(6 137 862)	–	1 895 420
Library books and equipment	38 600	–	(5 070)	–	33 530
Furniture and fittings	2 028 912	343 679	(6 079)	–	2 366 522
Tools and other equipment	52 998	219 394	(608)	–	271 784
	60 393 038	22 663 370	(6 179 092)	909 047	77 786 372

Accumulated depreciation	Opening	Current	Additions	Disposals	Closing	Balance
	balance	year				
	R	R	R	R	R	R
Building-lease improvements	190 104	188 043	–	–	–	378 147
Commercial property	–	–	–	–	–	–
Aircraft	5 028 063	2 330 739	–	–	–	7 358 801
Motor vehicles	747 670	391 463	–	–	–	1 139 133
Meteorological instruments	2 090 268	1 591 077	–	–	–	3 681 345
Office equipment	41 236	129 117	–	–	–	170 352
Computer equipment and software	1 526 139	3 565 650	4 091 908	(22 105)	–	9 161 592
Computer equipment: leased	3 842 614	631 807	–	(4 091 908)	–	382 513
Library books and equipment	13 644	11 599	–	(3 762)	–	21 482
Furniture and fittings	270 562	270 805	–	(2 426)	–	538 941
Tools and other equipment	15 412	20 690	–	(274)	–	35 828
	13 765 712	9 130 990	4 091 908	(4 120 475)	–	22 868 134

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

#### 4. PROPERTY, PLANT AND EQUIPMENT: 2004

Cost or valuation	Opening balance R	Additions R	Disposals R	Revalue R	Closing balance R
Building-lease improvements	–	1 880 429	–	–	<b>1 880 429</b>
Commercial property	8 960 000	–	–	1 240 000	<b>10 200 000</b>
Aircraft	9 712 250	–	–	–	<b>9 712 250</b>
Motor vehicles	1 931 685	133 032	(107 400)	–	<b>1 957 317</b>
Meteorological instruments	20 902 684	1 361 395	–	–	<b>22 264 079</b>
Office equipment	43 591	179 206	–	–	<b>222 797</b>
Computer equipment and software	1 754 906	2 250 423	(2 955)	–	<b>4 002 374</b>
Computer equipment: leased	8 033 282	–	–	–	<b>8 033 282</b>
Library books and equipment	16 604	21 996	–	–	<b>38 600</b>
Furniture and fittings	976 554	1 052 358	–	–	<b>2 028 912</b>
Tools and other equipment	38 299	15 101	(402)	–	<b>52 998</b>
	<b>52 369 855</b>	<b>6 893 940</b>	<b>(110 757)</b>	<b>1 240 000</b>	<b>60 393 038</b>

Accumulated depreciation	Opening balance R	Current year R	Disposals R	Revalue R	Closing balance R
Building-lease improvements	–	190 104	–	–	<b>190 104</b>
Commercial property	–	–	–	–	<b>–</b>
Aircraft	2 600 000	2 428 063	–	–	<b>5 028 063</b>
Motor vehicles	386 336	394 389	(33 055)	–	<b>747 670</b>
Meteorological instruments	–	2 090 268	–	–	<b>2 090 268</b>
Office equipment	11 098	30 138	–	–	<b>41 236</b>
Computer equipment and software	357 121	1 170 496	(1 478)	–	<b>1 526 139</b>
Computer equipment: leased	1 167 531	2 675 083	–	–	<b>3 842 614</b>
Library books and equipment	5 456	8 188	–	–	<b>13 644</b>
Furniture and fittings	105 199	165 363	–	–	<b>270 562</b>
Tools and other equipment	7 110	8 349	(47)	–	<b>15 412</b>
	<b>4 639 851</b>	<b>9 160 441</b>	<b>(34 580)</b>	<b>–</b>	<b>13 765 712</b>

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>4. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)</b>		
<b>Net book value</b>		
Building-lease improvements	1 502 282	1 690 325
Commercial property	11 109 047	10 200 000
Aircraft	2 452 934	4 684 187
Motor vehicles	818 184	1 209 647
Meteorological instruments	32 885 593	20 173 811
Office equipment	332 522	181 561
Computer equipment and software	2 229 184	2 476 235
Computer equipment: leased	1 512 907	4 190 668
Library books and equipment	12 048	24 956
Furniture and fittings	1 827 581	1 758 350
Tools and other equipment	235 956	37 586
	<b>54 918 238</b>	<b>46 627 326</b>

### 5. INVESTMENT PROPERTY

Fair value of property	50 600 000	29 450 000
Less: Commercial property	(11 109 047)	(10 200 000)
	<b>39 490 953</b>	<b>19 250 000</b>

T.I. Lehobye Valuations, independent valuer, carried out a valuation of the land in Garsfontein. The valuation reflects the fair value as at 31 March 2005.

The title deed to the property has not yet been passed to the name of SAWS.

The title deeds on the Irene and Bethlehem properties have not yet been passed to SAWS.

	2005 R	2004 R
<b>6. INVENTORIES</b>		
Consumables and maintenance goods	711 488	675 964



## Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>7. TRADE AND OTHER RECEIVABLES</b>		
Trade receivables	35 284 808	32 958 293
Less: Provision for doubtful debts	(24 435 442)	(16 274 519)
Prepayments	509 287	242 214
Other receivables	2 589 710	2 429 374
	<b>13 948 363</b>	19 355 362

Interest is charged on these and on any long outstanding trade debtor accounts. The carrying amount of trade and other receivables approximate their fair value.

Doubtful debts provision:

Opening balance	(16 274 519)	3 453 128
Provision raised	(8 160 923)	(19 727 647)
Closing balance	<b>(24 435 442)</b>	(16 274 519)

94% of the provision relates to the Aviation historical debt. The legal processes are under way to recover the debt.

**8. CASH AND CASH EQUIVALENTS**

Bank balances and cash	50 707 343	22 681 871
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Bank balances and cash comprise cash and short-term deposits held by the South African Weather Service.

Credit risk on liquid funds is limited because the counterparties are banks with high credit ratings, assigned by international credit-rating agencies.

The South African Weather Service has no significant concentration of credit risk, with exposure spread over a large number of counterparties and customers.

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>9. BORROWINGS</b>		
Long-term lease liability	-	851 476
Short-term portion of long-term lease liability	-	(851 476)
	-	-

#### IBM finance lease

The finance lease period expired on 31 March 2005. The South African Weather Service utilised the option of acquisition of ownership of computer equipment at the end of the term. The amount of R6 137 862 is included in the fixed assets.

#### Rentworks operating lease

(a)

Contract commencement date	01 July 2003
Payment profile	20 quarterly payments in advance commencing 01 July 2003
Initial term	60 months
Future minimum lease payments –	
Due within 12 months	R675 500
Due after 12 months not later than five years:	R1 519 876

(b)

Contract commencement date	25 April 2003
Payment profile	20 quarterly payments in advance commencing 01 July 2004
Initial term	60 months
Future minimum lease payments –	
Due within 12 months:	R44 680
Due after 12 months not later than five years	R145 210



## Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>10. POST-RETIREMENT PROVISION</b>		
<b>Amounts recognised in the income statement</b>		
Post-employment medical benefits:		
Current service cost	665 000	603 000
Interest cost	1 251 000	1 311 000
Expected return on plan assets	–	–
Net actuarial losses/(gains) recognised in year	168 000	(311 000)
Past service cost	–	–
Total included in 'employee costs'	<b>2 084 000</b>	1 603 000
Actual return on plan assets	–	–
<b>Amounts recognised in balance sheet:</b>		
Post-employment medical benefits:		
Present value of funded obligations	–	–
Fair value of plan assets	–	–
	–	–
Present value of unfunded obligations	<b>16 103 000</b>	14 087 000
Unrecognised actuarial gains/(losses)	–	–
Unrecognised past service cost	–	–
Net liability in balance sheet	<b>16 103 000</b>	14 087 000
Less: Current liability	<b>114 612</b>	68 000
Long-term provision	<b>15 988 388</b>	14 019 000
Amounts in the balance sheet:		
Liabilities	<b>16 103 000</b>	14 087 000
Assets	–	–
Net liability in balance sheet	<b>16 103 000</b>	14 087 000
Current provision	<b>114 612</b>	68 000

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>10. POST-RETIREMENT PROVISION (CONTINUED)</b>		
<b>Movements in the net liability in the balance sheet:</b>		
Post-employment medical benefits:		
Net liability at start of year	14 087 000	12 521 000
Net expense recognised in the income statement	2 084 000	1 603 000
Contributions	(68 000)	(37 000)
Net liability at end of year	16 103 000	14 087 000
Less: Current portion	114 612	68 000
Long-term provision	15 988 388	14 019 000
<b>Principal actuarial assumptions at balance sheet date</b>		
Discount rate 31 March (%)	9	8,5
General increases to medical aid subsidy (%)	7	6,5
Proportion continuing membership at retirement (%)	100	100
Proportion of retiring members who are married (%)	80	80
Retirement age (years)	60	60

### 11. TRADE AND OTHER PAYABLES

Trade payables	19 580 581	11 963 561
Sundry accruals	2 300 000	2 233 279
Other payables	1 856 245	685 347
	<b>23 736 826</b>	14 882 187

The carrying amount of trade and other payables approximate their fair value.

Unrealised foreign exchange profit and loss is calculated using the spot rate at year-end.

#### Spot rates at year-end

2005 – EUR = R8,088

2004 – EUR = R7,744

2004 – USD = R6,289



## Notes to the annual financial statements (continued)

For the year ended 31 March 2005

**11. TRADE AND OTHER PAYABLES (CONTINUED)**

	Foreign Currency	2005 R	2004 R
<b>Foreign exchange rate exposure</b>			
Vaisala Oyj	EUR342 975	–	2 655 998
American Meteorological Society	USD55	–	346
Vaisala Oyj	EUR1 231 425	<b>9 959 764</b>	–
Nera Economic Consulting	EUR230 117	<b>1 861 188</b>	–
		<b>11 820 952</b>	2 656 344

	2005 Opening balance R	Additions R	Used R	Closing balance R
Capped leave provision	<b>8 432 649</b>	189 602	–	8 622 251
Post-retirement provision	<b>68 000</b>	114 612	(68 000)	114 612
Closing balance	<b>8 500 649</b>	<b>304 214</b>	<b>(68 000)</b>	<b>8 736 863</b>

	2004 Opening balance R	Additions R	Used R	Closing balance R
Capped leave provision	8 631 459	–	(198 810)	8 432 649
Post-retirement provision	12 521 000	1 566 000	(14 019 000)	68 000
	21 152 459	1 566 000	(14 217 810)	8 500 649

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>12. PROVISIONS (CONTINUED)</b>		
<b>Current:</b>		
Leave provision	8 622 251	8 432 649
Post-retirement provision	114 612	68 000
	<b>8 736 863</b>	8 500 649

#### Post-retirement provision

Post-retirement medical aid provision to the amount of R14 019 000 has been transferred to long-term provision, effectively in 2004, since only a portion (R68 0000) was payable in 2004.

#### Leave provision

Leave provision was calculated based on the working days due to each employee, as at 15 July 2001 from the Persal system. Adjustments to this provision relate to increases in salary rates, days claimed or paid out through retirement or death and employees resigning. It should be noted that employees resigning forfeit their claim.

### 13. DONOR FUNDING

Donor funds available	4 523 490	5 035 727
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## Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>14. REVENUE</b>		
<b>An analysis of the South African Weather Service's revenue is as follows:</b>		
Government grants	96 924 000	80 641 000
Aviation income	44 180 374	49 034 933
Information fees	2 612 547	3 201 292
Gain on commercial property	–	1 320 000
Other income	1 093 248	1 789 214
Project income	1 325 896	2 663 753
Donations	–	1 204 462
	<b>146 136 065</b>	139 854 654
<b>Project income</b>		
The amount of project income is made up of income generated from commercial projects mainly Namibian AWS Tender, Orsmond Aviation, Norwegian Fund, MTAP Training and Lesotho Meteorological Office.		
<b>15. PROFIT FROM OPERATIONS</b>		
<b>Profit from operations has been arrived at after charging (crediting):</b>		
Foreign exchange realised	(13 421)	(412 009)
Foreign exchange unrealised	680 718	47 105
Auditor's remuneration	971 326	764 416
Legal fees	923 408	208 706
Bad debt	8 342 886	11 506 033
Communication cost/(refund)	6 346 729	6 294 650
Net profit on disposal of property, plant and equipment	(107 852)	(226 845)
Operating lease payments	654 761	556 573
Project expenditure	644 080	1 667 777
Gain on commercial property	–	(1 320 000)

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

	2005 R	2004 R
<b>15. PROFIT FROM OPERATIONS (CONTINUED)</b>		
<b>Depreciation</b>		
Land and buildings (lease improvements)	188 043	190 104
Aircraft	2 330 739	2 428 263
Motor vehicles	391 463	394 389
Meteorological instruments	1 591 077	2 090 268
Office equipment	129 117	30 138
Computer equipment and software	4 197 456	3 845 579
Library books and equipment	11 599	8 188
Furniture and fittings	270 805	165 362
Tools and other equipment	20 690	8 349
	<b>9 130 989</b>	<b>9 160 440</b>
Number of employees	<b>354</b>	<b>355</b>
<b>16. FINANCE COST</b>		
<b>Interest paid</b>		
Interest charges by suppliers	3 422	33 687
Finance leases	238 211	695 369
	<b>241 633</b>	<b>729 056</b>
<b>17. INCOME FROM INVESTMENTS</b>		
<b>Interest received</b>		
Bank balances and cash	2 220 294	1 403 708



## Notes to the annual financial statements (continued)

For the year ended 31 March 2005

**18. CONTINGENT LIABILITY**

The South African Weather Service assists qualifying officials to obtain 100% housing loans from financial institutions without a cash deposit. For this purpose agreements have been entered into with approved financial institutions to effect that the South African Weather Service will guarantee a maximum of 20% of the housing loan for which a person qualifies. The maximum amount is based on the official's basic salary. There are 59 loans, the amount and exposure relating to this liability is estimated at approximately R930 000. The South African Weather Service had a contingent liability to the amount of R8 525 484 at balance sheet date, that relates to the aviation industry. This amount represents 30% of cash received from aviation debtors up until 31 December 2004, excluding debtors who paid invoices on the disputed reduced tariff. There are pending legal actions against SAWS taken by three ex-employees for unfair dismissals. The amount is estimated at R904 549.

**19. EXECUTIVE MEMBER'S REMUNERATION: 2005**

	Salary	Bonus	Pension	Motor allow- ance	Medical allow- ance	Subsist- ence travel	For services as members	Total R
<b>Board members</b>								
Brundrit GB							20 954	<b>20 954</b>
Maasdorp L							19 003	<b>19 003</b>
Maluleke VP							58 583	<b>58 583</b>
Maqubela NP							73 657	<b>73 657</b>
Rensburg S							79 091	<b>79 091</b>
Sangweni-Siddo L							35 000	<b>35 000</b>
Swartz DI (Resigned 24/08/04)							–	–
Mphepya JN							36 052	<b>36 052</b>
Robinson IW							36 194	<b>36 194</b>
Matjila J							–	–
							358 534	<b>358 534</b>

## Part 3



### Notes to the annual financial statements (continued)

For the year ended 31 March 2005

#### 19. EXECUTIVE MEMBER'S REMUNERATION: 2005 (CONTINUED)

	Salary	Bonus	Pension	Motor allow- ance	Medical allow- ance	Subsist- ence travel	For services as members	Total R
<b>Executive management</b>								
Schulze GC	342 113	41 769	49 494	109 743	20 421	4 854		<b>568 393</b>
Lengoasa RDJ	439 725	37 275	63 606	172 004	6 512	6 545		<b>725 667</b>
Lukhele B	362 166	57 834	48 649	137 739	16 096	172		<b>622 655</b>
Less LD	209 427		29 441	81 545	6 512	212		<b>327 137</b>
	<b>1 353 431</b>	<b>136 877</b>	<b>191 191</b>	<b>501 031</b>	<b>49 541</b>	<b>11 782</b>		<b>2 243 852</b>

#### 19. EXECUTIVE MEMBER'S REMUNERATION: 2004

	Total R
<b>Board members</b>	
Brundrit GB	9 997
Maasdorp L	18 024
Maluleke VP	43 395
Maqubela NP	40 345
Rensburg S	30 298
Sangweni-Siddo L	31 426
Swartz DI	15 663
Mphepya JN	–
Robinson IW	–
	<b>189 148</b>
<b>Executive management</b>	
Schulze GC – COO	517 619
Lengoasa – CEO appointed 1 March 2003	711 374
Lukhele – CFO appointed 1 June 2003	466 171
	<b>1 695 164</b>



Notes to the annual financial statements (continued)  
For the year ended 31 March 2005

**19. EXECUTIVE MEMBER'S REMUNERATION: 2004 (CONTINUED)**

**Executive members service contracts**

In order to retain key members of the executive team, service contracts have been entered into for periods in excess of one year.

	2005	2004
<b>20. RELATED PARTY TRANSACTIONS</b>		
Department of Environmental Affairs and Tourism: Government grant	<b>96 924 000</b>	80 641 000

**21. TAXATION**

The South African Weather Service is exempted from income tax as per provisions of section 10(1)(CA)(1) of the Income Tax Act, 1962.

## Part 3



### Materiality framework statement

For the year ended 31 March 2005

Section 28.1.5 of the Treasury Regulations – For purposes of material [sections 50(1), 55(2) and 66(1) of the Public Finance Management Act (PFMA)] and significant [section 54(2) of the PFMA], the Accounting Authority must develop and agree on a framework of acceptable levels of materiality and significance with the relevant executive authority in consultation with the external auditors.

Statement of South African Auditing Standards (SAAS) 320.03 defines materiality as follows: Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. Thus, materiality provides a threshold or cut-off point, rather than being a primary qualitative characteristic which information must have if it is to be useful.

The South African Weather Service (SAWS) deals with this framework under two main categories, namely, quantitative and qualitative aspects.

#### Quantitative aspects

The Auditor-General has provided guidelines, which provide the basis of establishing materiality limits. Using these guidelines, SAWS has a different material amount of R1 597 764 for assets. This has been determined by applying 1% on the total assets of R159 776 385. The materiality figure for all other classes of transactions is R730 680, derived from 0,5% of gross annual turnover of R146 136 065.

In determining the said materiality values, we also took cognisance of the following:

- Nature of the business of the South African Weather Service.  
Funding of SAWS is twofold, by means of a government grant received from the Department of Environmental Affairs and Tourism and through commercial income being generated for weather information provided.  
Given the nature of SAWS to be a revenue-driven organisation preference is given to gross revenue as basis of defining the level of materiality. SAWS makes use of specialised equipment with a significant monetary value, to provide weather information hence the different materiality value for assets.
- Statutory and disclosure requirements laid down by the PFMA and its regulations.
- Control and inherent risks associated with the systems of internal control at the South African Weather Service.

#### QUALITATIVE ASPECTS

Materiality is not merely related to the size of the entity and the elements of its financial statements. Obviously, misstatements that are large either individually or in the aggregate may affect a “reasonable” user’s judgment. However, misstatements may also be material on qualitative grounds. These qualitative grounds include amongst other:



### Materiality framework statement (continued)

For the year ended 31 March 2005

- New ventures that SAWS has entered into.
- Unusual transactions entered into that are not of a repetitive nature and are disclosable purely due to the nature thereof due to knowledge thereof affecting the decision-making of the user of the financial statements.
- Transactions entered into that could result in reputational risk to SAWS.
- Any fraudulent or dishonest behaviour of an officer or staff of SAWS.
- Procedures/processes required by legislation or regulation (eg PFMA and the Treasury Regulations).

## Part 3

### List of abbreviations

<b>ARC</b>	–	Agricultural Research Council
<b>AWS</b>	–	Automatic Weather Station
<b>BEE</b>	–	Black Economic Empowerment
<b>CSIR</b>	–	Council for Scientific and Industrial Research
<b>DAPPS</b>	–	Dynamical Air Pollution Prediction System
<b>DEAT</b>	–	Department of Environmental Affairs and Tourism
<b>DFA</b>	–	Department of Foreign Affairs
<b>DWAF</b>	–	Department of Water Affairs and Forestry
<b>EMC</b>	–	Executive Management Committee
<b>EUMETSAT</b>	–	European Organization for the Exploitation of Meteorological Satellites
<b>EXCO</b>	–	Executive/Corporate Governance Committee
<b>GAAP</b>	–	Generally Accepted Accounting Practice
<b>GAW</b>	–	Global Atmosphere Watch
<b>HRM</b>	–	Human Resource Management
<b>ICT</b>	–	Information, Communications and Technology
<b>ITIL</b>	–	Information Technology Infrastructure Library
<b>METCAP</b>	–	Meteorological Data Capturing System
<b>MSG</b>	–	Meteosat Second Generation
<b>MTAP</b>	–	Meteorological Transition in Africa Programme
<b>NEPAD</b>	–	New Partnership for Africa's Development
<b>NCEP</b>	–	National Centres for Environmental Prediction
<b>NCAR</b>	–	National Centre for Atmospheric Research
<b>NOAA</b>	–	National Oceanic and Atmospheric Administration
<b>PFMA</b>	–	Public Finance Management Act
<b>PMS</b>	–	Performance Management System
<b>RMSE</b>	–	Root Mean Square Errors
<b>SAAS</b>	–	South African Accounting Standards
<b>SAWS</b>	–	South African Weather Service
<b>SADC</b>	–	Southern African Development Community
<b>SAMDI</b>	–	South African Management Development Institute
<b>SCM</b>	–	Supply Chain Management
<b>SCOM</b>	–	Sub-sectoral Committee on Meteorology
<b>UAE</b>	–	United Arab Emirates
<b>UAV</b>	–	Unmanned Aerial Vehicles
<b>VCP</b>	–	Voluntary Cooperation Programme
<b>WMO</b>	–	World Meteorological Organization
<b>WRC</b>	–	Water Research Commission







## Contact details

Pretoria National Forecasting Centre	082 233 9800
Aviation Weather Centre, Jhb	082 233 9600
Bloemfontein Weather Office	082 233 9100
Cape Town Weather Office	082 233 9900
Durban Weather Office	082 233 9500
Port Elizabeth Weather Office	082 233 9700
Climate Information Data	082 233 8484
Forecasts longer than 7 Days	082 233 9000
Chairperson of the Board	+27(0) 12 367 6078
Chief Executive Officer	+27 (0) 12 367 6112

Weatherline **082 162**

Website **[www.weathersa.co.za](http://www.weathersa.co.za)**

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