



Transport

The aim of the Department of Transport is to lead the provision of an integrated, sustainable, reliable and safe transport system, through safety and economic regulation, planning, development, co-ordination, promotion and the implementation of transport policies and strategies.

Policy

The department is working to improve and expand infrastructure and, through subsidies, to reduce the costs of public transport.

Key elements of the department's new strategic approach include:

- restructuring public-transport subsidies to better target poor commuters, irrespective of the mode of transport, and aligning subsidised transport services to support municipal integrated transport plans
- streamlining the freight logistics network along key freight movement corridors by promoting infrastructure investment and improved operational efficiency
- building capacity to monitor and oversee the public entities that report to the Minister of Transport
- developing the regulatory systems and capacity required to ensure that operators in the transport sector meet the required safety and security standards, and to establish a single economic regulator for the transport sector.

2010 Action Agenda

By the end of October 2006, the Minister of Transport, Mr Jeff Radebe, announced that the 2010 Transport Action Agenda had been developed and that the World Cup Public Transport Infrastructure and Systems Fund had allocated the first round of funding to municipalities.

Government has set aside R3,8 billion for public-transport infrastructure for the 2010 Fifa Soccer World Cup. These funds are meant to leverage other funds available to develop public-transport infrastructure. The following allocations were approved:

- R1,6 billion for capital-expenditure projects for 2010
- R200 million for intelligent transport systems
- R700 million for new and improved bus and taxi infrastructure
- R144 million for new intermodal interchanges and facilities



- R109 million for non-motorised transport (NMT) infrastructure projects

An additional R5 billion a year is needed to address the decline in service levels and to implement government's transport strategy to achieve a sustainable rapid mass public-transport system over the next 10 to 15 years.

Government's transport plan for the Fifa World Cup aims to ensure efficient and safe transport, especially sufficient air, road and rail transport operators and infrastructure for the event.

National Freight Logistics System

A critical area of focus is a seamless logistics system, characterised by an efficient flow of freight that promotes the economy's competitiveness. It is expected that the transport system will have to be restructured to prevent poor logistics from acting as a restraint on economic growth, employment and sustainable development. The removal of blockages within the ports and rail systems is regarded as a priority.

The implementation of the National Freight Logistics Strategy has resulted in:

- developing the Durban Freight Plan
- commencement of the second phase of establishing the Harrismith Freight Hub
- examining the future and possible role of the Cato Ridge Handling Facility, as part of the Gauteng-Durban Corridor Project

- finalising the Western Cape Databank and the Cape Town Freight Metropolitan Study for the Gauteng-Cape Town Corridor
- launching the Gauteng-Maputo Corridor Forum in April 2006
- appointing the Maputo Corridor Logistics Initiative as the secretariat of the provincial Gauteng-Maputo Corridor Forum
- establishing task teams.

Public transport

The main objectives of a sustainable public-transport system are to improve the system, broaden access to affordable transport and stimulate economic activities.

Transport subsidies are potentially important tools for improving efficiency, access and equity. In the past, they have been targeted loosely and implemented selectively. The Department of Transport is channelling subsidies to those with the greatest need to maximise economic and social gains.

The department's largest allocations are for public-transport subsidies for train and bus operations. The department is reviewing this system to fund public-transport operations more equitably across the modes, to target poor commuters better, and to promote competition among public-transport operators. This will have long-term implications for subsidies. In the meantime, the department

continues to prioritise the transformation and rationalisation of the bus-subsidy system so that these subsidies can be devolved to municipalities in the medium term. National and local government subsidise the bus system, which conveys 20% of commuters. Bus services could be extended as the most cost-effective public-transport service in key metropolitan areas, and many municipalities are promoting the development of dedicated busways as a main element of their strategic public-transport networks.

Subsidised commuter rail carries 15% of commuters (2,2 million passengers daily), but faces a backlog in investment infrastructure.

In discussing ways to strengthen the department's public-transport strategy, stakeholders agreed in 2006 at the Transport Indaba that:

- the department had to ensure that learners had access to public transport provided by licensed operators who were strongly regulated to prevent overloading and the use of unroadworthy vehicles
- the rights of commuters and users of public transport, especially women with children, pedestrians and cyclists, should be promoted in an enforceable charter, and that such users should have recourse to insurance and passenger liability claims in the event of accidents
- establishing a public-transport ombud's office should be considered as a matter of urgency
- the public-transport strategy should include a comprehensive skills-development strategy targeting driver-training to improve service delivery, a Black Economic Empowerment (BEE) component and gender-equity
- the Taxi Recapitalisation Programme (TRP) should be expanded to other forms of transport and should be extended to operators in remote rural areas.

Black Economic Empowerment

The integrated Broad-Based Black Empowerment (BBBEE) Charter for the Transport Sector was finalised in November 2005. It sets targets for empowerment and participation through ownership, management and employment in companies throughout the transport-sector value chain. The charter will ensure representivity for black women and designated groups across most of the BEE indicators.

Non-motorised transport

The promotion of NMT primarily aims to increase transport mobility and accessibility, mainly in rural areas. These include the donkey carts of the Northern Cape and North West, and the Shova Kalula Bicycle Programme that was launched in 2000.

During the demonstration phase of the programme, the department made R10 million available to supply 19 411 bicycles to schoolchildren. By March 2006, 22 Shova Kalula microbusiness enterprises had been established in six provinces.

The Shova Kalula Project is part of the department's NMT strategy and initiative that aims to meet the target of delivering one million bicycles throughout South Africa by 2015, in line with the resolutions and action plan agreed to during the African Transport Ministers' Summit in Addis Ababa, Ethiopia, in 2006.

On 21 October 2006, the Shova Kalula Bicycle Handover Campaign took place in Hammanskraal, outside Pretoria.

Transport safety

Increased emphasis is being placed on safety issues in all transport modes. The National Road to Safety Strategy, the transportation of dangerous goods by road, the establishment of the Maritime Rescue Centre, the setting-up of the Railway Safety Regulator, and the Road-Traffic Management Corporation (RTMC) are examples.

During discussions about the department's National Road Safety Strategy, stakeholders in the transport sector suggested that it could be strengthened and its implementation improved in several ways. As a result:

- the department agreed to hold consultative workshops every January and June
- provincial and local government were instructed to use their communication functions to support the Arrive Alive Campaign
- the RTMC was mandated to collaborate with provincial and local governments to ensure law enforcement was intensified and co-ordinated, especially in rural areas where enforcement and road-safety knowledge were minimal
- safety within the public-transport industry had to take priority, remedial measures introduced, and control and regulation entrusted to a national body

- priority has to be given to pedestrians, with local authorities and provinces reducing speed limits and creating safer environments for pedestrians and cyclists countrywide
- priority has to be given to integrating planning to prevent homes, schools and important facilities from being divided by main roads
- more public funds and skilled staff members should be allocated to road-safety projects, especially in preparation for the 2010 Fifa World Cup.

New Partnership for Africa's Development (Nepad)

From a transport point of view, key issues in creating an effectively co-ordinated African response to global market challenges are market access, mobility and systems integration.

The Department of Transport is contributing actively to the practical realisation of Nepad and the Southern African Development Community (SADC) development goals in several major areas, by promoting:

- efficient and effective maritime transport services
- rail-systems integration
- road-systems development and infrastructure maintenance.

Agencies

The Department of Transport has established four bodies to move certain elements of government's operational activities to commercial agencies. They are the South African National Roads Agency Limited (Sanral), the South African Maritime Safety Authority (Samsa), the Cross-Border Road Transport Agency (CBRTA) and the South African Civil Aviation Authority (CAA).

South African National Roads Agency Limited

The Sanral is an independent, statutory company responsible for the design, construction, management and maintenance of South Africa's national road network, including toll and non-toll roads.

The Sanral's responsibilities are to:

- strategically plan, design, construct, operate, rehabilitate and maintain South Africa's national roads
- deliver and maintain a world-class primary road network

- generate revenue from the development and management of its assets
- undertake research and development to enhance the quality of the country's roads
- upon request of the Minister of Transport and in agreement with a foreign country, provide, operate and maintain roads in that country.

South African Maritime Safety Authority

The Samsa is a statutory body that reports to the Minister of Transport. Its responsibilities include promoting safety of life and property at sea, preventing marine pollution by pollutants emanating from ships, and co-ordinating overall technical operations. It also develops policy on legal issues, foreign relations, marine pollution and certain specific safety matters.

The Samsa's main functions are:

- providing shipping competence and pollution services in a regional context
- managing marine incidents, casualties and wrecks, and participating in search-and-rescue missions
- controlling standby tugs and pollution stores
- maintaining seafarers according to standards of training and staffing criteria
- providing a shipping-administration support service
- managing the registration of ships
- managing a coastal patrol service
- managing vessel traffic, including navigation aids
- providing lighthouse services.

Funding comes from, among other sources, levies on ships calling at South African ports, direct user charges and government service fees.

Cross-Border Road Transport Agency (CBRTA)

The CBRTA regulates and controls cross-border passenger, freight and road transport. It also facilitates the establishment of co-operative and consultative relationships and structures between public and private-sector institutions, with an interest in cross-border road transport.

The CBRTA is also involved in collecting, processing and disseminating relevant information; providing training and capacity-building; and promoting entrepreneurship, focusing on small, medium and micro enterprises (SMMEs) with an interest in cross-border road transport.

The functions of the agency include:

- advising the Minister of Transport on cross-border transport matters and assisting in the process of negotiating and renegotiating cross-border road-transport agreements on request
- regulating the road-transport industry's access to the cross-border road-transport market
- facilitating ongoing co-operative and consultative relationships and structures between the public and private sectors in support of cross-border road-transport operations
- undertaking road-transport law enforcement.

The main source of income for the CBRTA is fees charged for cross-border permits.

South African Civil Aviation Authority

The CAA is charged with promoting, regulating and enforcing civil-aviation safety and security.

The CAA has proved to be a leader in the aviation regulatory sector in the SADC region. It has hosted several regional meetings and conferences since 1994, and is the driving seat of efforts to harmonise aviation regulations in the region and to improve the level of aviation surveillance.

In 2003, South Africa was elected as a member of the International Civil Aviation Organisation (ICAO) Council and was requested to establish a South African office at the ICAO headquarters in Montreal, Canada.

The CAA is funded by a combination of direct and indirect fees and government funding for the investigation of aircraft accidents. User fees are based on the recovery of the agency's costs to provide the relevant direct services. This approach creates a more efficient and cost-effective regulatory regime and a safer civil-aviation system.

Indirect fees are recovered through an aircraft and passenger safety charge payable by all scheduled passengers.

Transnet Limited

Transnet Limited, a public company of which the South African Government is the sole shareholder, was established on 1 April 1990.

The company is recognised as a dominant player in the southern African transport infrastructure. Its activities are not restricted to southern Africa but extend beyond its borders into Africa and the rest of the world.

Transnet has committed to investing R41 billion over the next five years to improve services and ensure seamless freight logistics. Investments are expected to be made in the areas of ports, pipelines and rail. Of the rail portion, R8,9 billion will be invested in the coal line and R2,7 billion in the iron line, while R10,8 billion has been earmarked for improving infrastructure in the general freight business.

Transnet has assets in excess of R77 billion.

By mid-2006, the Department of Public Enterprises, in conjunction with Transnet and South African Airways (SAA), was working on the separation of SAA, which was expected to be finalised by the end of 2006.

This will allow Transnet to focus on its rail, port and petro-pipeline core business. SAA will be a stand-alone entity reporting to the Department of Public Enterprises.

To increase the capacity of South African ports in line with the National Freight Logistics Strategy, Transnet will expand most ports and invest R3,2 billion in the new port of Ngqura. At Durban port, R12 billion will be spent on improving the car and container terminals and Maydon Wharf, and expanding the Bayhead complex. Cape Town and Richards Bay ports will be improved at a cost of R1 billion each.

Transnet Limited's responsibilities encompass the following:

- Spoornet, which focuses on transporting freight by rail
- the National Ports Authority (NPA), which provides port infrastructure and marine-related services and manages port activities at South Africa's major ports

For the year to 31 March 2006, Transnet reported a 57% rise in profits from continuing operations to R8,5 billion on revenue of R26,3 billion, representing a 7% or R1,6 billion improvement compared with the previous year.

Operating expenses dropped 9,9% to R17,9 billion, contributing to a 57% increase in profit from operations to R8,5 billion.

The capital base grew 31% to R27,7 billion and cash generated from operations increased by 28% to R11,2 billion.

- South African Port Operations, which manages port- and cargo-terminal operations through a number of strategically segmented units
- Petronet, which pumps and manages the storage of petroleum and gas products through its network of high-pressure and long-distance pipelines
- Transwerk, which focuses on refurbishing, converting, upgrading and manufacturing retail-related stock
- Protekon, a multidisciplinary engineering organisation specialising in providing turnkey railway, port and intermodal logistical solutions.

Road transport

National roads

In terms of the National Roads Act, 1998 (Act 7 of 1998), government is responsible for overall policy, while road-building and maintenance is the responsibility of Sanral.

The Department of Transport continues to improve the road network, ensuring that it is well-maintained and safe. A new national roads plan is being developed, acknowledging the importance of roads to the economy.

The total South African road network comprises some 754 600 km of roads and streets.

Responsibility for the network is carried by the department with Sanral, the nine provinces, and local governments.

A new proposed road-classification system has been developed to integrate the 29% of unclassified roads into the road system. Unclassified roads are predominantly access roads in rural communities and roads in settlements on the urban periphery.

The various categories include:

- 9 600 km of surfaced national toll and non-toll roads
- 56 000 km of surfaced provincial roads
- 300 000 km of gravel provincial roads
- 168 000 km of surfaced and unsurfaced urban roads
- 221 000 km of unclassified roads.

Government will mobilise investment of more than R25 billion from public and private sources in national roads over the next five years. It has committed some R63 billion for the next three years in the three spheres of government. The R25-billion is over and above the more than R2-billion baseline

allocations made annually to Sanral to manage non-toll national roads.

The State's toll-road network will be expanded at a cost of R10,7 billion, while the private sector will invest about R16 billion in concession toll roads, including the N2 Wild Coast. A significant proportion of these funds will be spent on the three major metropolitan nodes to address congestion. Government expects to invest R5,4 billion in developing access roads across the country in the next three years, using labour-intensive methods to maximise job creation and skills development. A further R500 million will be invested in strategic secondary roads critical for freight transportation.

Provincial roads

The planning, construction and maintenance of roads and bridges, other than those falling under Sanral or local governments, is the responsibility of provincial governments. The Department of Transport is always ready to assist provincial and local governments to improve and develop the state of their roads.

Municipal roads

The construction and maintenance of most roads and streets within the municipal boundaries of cities and towns is the responsibility of the municipality concerned.

Toll roads

Toll roads cover some 2 400 km and are serviced by 32 toll plazas, including concessioned roads.

The viability of every toll road is determined over a 30-year period to assess private-sector funding.

The performance of all toll roads is within the forecast, and in many cases roads perform better than forecast. It is envisaged that all new major toll-road projects will be financed through the Build, Operate and Transfer principle. This allows greater private-sector involvement in the financing, building, operation and maintenance of toll projects. When the concession period expires, the facility is transferred back to the State at no cost.

Credit-card format (CCF) licences

CCF licences are valid for a period of five years, whereafter licence holders have to apply for a replacement.

The CCF licence contains more than 20 different security features, one of which is the encrypted two-dimensional bar code which complies with international standards.

Public transport

In terms of the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996), legislative and executive powers in respect of public transport are a provincial competency. National government, however, is responsible for policy-formulation, monitoring and strategic implementation. The Department of Transport continues to administer subsidies for buses and other subsidised forms of public transport.

According to the National Household Travel Survey, 2003, there were about 3,9 million public-transport commuters in mid-2003. The 2,5 million taxi commuters accounted for over 63% of public-transport work trips. Bus services account for another 22% of public-transport commuters and the balance were carried to work by train. In addition to the 2,5 million commuters who used minibus taxis as the main mode of travel, there were another 325 000 commuters who used taxis either as a feeder mode to other public-transport services, or as a distribution service from the main mode to their places of work.

National Transport Register

The establishment of the National Transport Register is a requirement of the National Land Transport Transition Act, 2000 (Act 22 of 2000).

The purpose of the register is to integrate the land-transport systems, i.e. the Subsidy Management System (SUMS), the Land-Transport Permit System (LTPS) and the Registration Administration System (RAS).

The LTPS facilitates the issuing of public road-carrier permits, to regulate entry into the road-carrier markets.

The objective is to facilitate the processing of permit applications and to enable local road-transportation boards (provincial permit boards) to provide an efficient service to the industry. In achieving this goal, the LTPS supports the boards in:

- registering applications
- generating and verifying advertisements
- capturing objections and appeals
- generating agendas

- verifying vehicle information
- generating permits and permit transfers.

The RAS facilitates the registration of minibus-taxi associations with the Provincial Registrar to formalise the industry. They support the registrar with:

- registering members and associations
- registering vehicle particulars of members
- registering corridor particulars of associations
- management reporting.

The SUMS manages claims from provincial departments and payments thereof for bus contracts.

Urban transport

Metropolitan transport advisory boards govern urban areas which have been declared metropolitan transport areas. Both short- and long-term programmes for adequate transportation development are drawn up by the core city of each area and are revised and adjusted annually.

Nine such core areas exist, namely Johannesburg, Cape Town, Pretoria, Durban, Pietermaritzburg, Port Elizabeth, the East Rand, Bloemfontein and East London.

The planning of transport for metropolitan and major urban areas must be done in accordance with a growth-management plan, and travel modes should not compete with one another. In urban areas, passenger road-transport services are provided by local governments, private bus companies, which operate scheduled bus services between peripheral areas and city centres, and minibus taxis.

The Department of Transport supports provincial departments of transport and of public works in constructing intermodal facilities and in their efforts to achieve integration between bus and taxi operations.

The minibus-taxi industry has shown phenomenal growth during the last few years, leading to a decrease in the market share of buses and trains as modes of transport.

Motor vehicles

The number of registered vehicles increased by 492 009 (6,58%) from 7 479 178 vehicles on 31 December 2004 to 7 971 187 vehicles at the end of December 2005.

While more new vehicles enter into service, other unroadworthy cars are scrapped from the road annually.

In 2000, some 83 901 vehicles were removed from the road compared with 111 593 in 2005.

Taxi Recapitalisation Programme

By April 2006, the National Land Transport Transition Amendment Bill was before Parliament to enable government to implement the TRP.

The TRP aims to replace the current ageing taxi fleet with new, safer and purpose-built minibus taxis. The TRP comprises the introduction of safety requirements for the new taxi vehicles, scrapping of existing vehicles, effective regulation of the taxi industry, effective law enforcement in respect of public transport, and empowerment of the taxi industry.

The new safety requirements, which were effective from 1 January 2006, involve:

- seatbelts
- roll-over bars
- type-two braking systems
- commercially rated tyres: size 185 R or 195 R
- warning markings
- wheel bands
- tamper-proof speed governors (100 km per hour will be set as the maximum)
- diesel-fuelled vehicles.

Any new vehicle entering the taxi industry without meeting these safety requirements will not be licensed to operate as a taxi.

By mid-2006, some 98% of taxi operators had applied for their permits to be converted to operating licences, while those who had not were given until 30 September 2006 to do so.

Late in September 2006, Minister Radebe met with representatives from the National Association of Automobile Manufacturers of South Africa, financial institutions, the taxi industry, the South African Bureau of Standards and bodies representing commuters to discuss the implementation and roll-out of the TRP. It was agreed that:

- all manufacturers of vehicles for the TRP would comply with safety regulations issued on 4 September 2006 and that they would submit their vehicles for certification by the South African Bureau of Standards without delay
- by the end of 2007, all TRP vehicles had to comply substantially with safety regulations.

New taxis would start being introduced in September 2006 and would have colour-coding and specific markings to help commuters and traffic-enforcement officials identify them.

The Siyazi Consortium Scrapping Agency had the task of finalising and setting up facilities and infrastructure countrywide for the scrapping of taxis, which would begin in October 2006, to coincide with Transport Month.

Old vehicles would have to undergo roadworthiness testing at vehicle-testing centres countrywide. Those deemed unroadworthy would be forwarded to the nearest scrapping agency. Owners would be advised to apply for the scrapping allowance.

Bus transport

A network of publicly and privately owned passenger bus services links the major centres of South Africa and also serves commuters in deep rural areas. Cabinet has approved measures intended to improve public-transport safety. These include the intensification of law enforcement, lowering the maximum speed limit for buses and minibus taxis to 100 km/h, and a fitness-testing programme for buses.

Before 1994, a handful of large bus companies were receiving most of government's bus subsidy budget. By November 2003, three years ahead of target, the proportion of bus subsidies paid to Black Economic Empowerment (BEE) bus companies had reached 60%. By March 2004, 55% of all contracts had been converted to tendered or negotiated contracts. The remaining contracts were expected to be converted by April 2007. By October 2006, there was still a moratorium on new tendered contracts to allow bus companies time to meet the new requirements of subsidised service contracts.

Through the Transport Education and Training Authority (Teta) Programme for taxi drivers, government and taxi operators aim to transform the taxi industry by ensuring it remains dynamic and service-oriented in responding to public-transport needs. By May 2006, more than 4 000 taxi drivers had completed the certified Teta programme that promotes professionalism and efficiency among taxi drivers.

In February 2006, Minister Radebe instructed the TRMC to introduce measures to ensure adherence to safety requirements and standards by bus operators, especially those transporting school-children. Buses transporting learners have to meet basic safety standards and be tested regularly at approved testing stations.

Where accidents involve unroadworthy buses, the TRMC has to ensure that testing stations and officials responsible for issuing certificates to unroadworthy buses and other public-transportation vehicles are held liable for their actions.

The departments of transport and of education co-operate in ensuring that safety standards are included in transport contracts. The final Model Tender Document is expected to further enhance safety standards for buses and other vehicles involved in subsidised transport services, by introducing competitive tendering in a regulated environment.

Cross-border transport

Multilateral

The SADC Protocol on Transport, Communications and Meteorology provides a comprehensive framework for regional integration across the entire spectrum of the transport, communications and meteorology sectors. The general objective is to promote the provision of efficient, cost-effective and fully integrated infrastructure and operations in these fields.

The protocol also specifically addresses road transport, and aims to facilitate the unimpeded flow of goods and passengers between and across the territories of SADC member states. It aims to promote

the adoption of a harmonised policy, which lays down general operational conditions for carriers.

Cross-border transport within the Southern African Customs Union (Sacu) is undertaken in terms of the Sacu Memorandum of Understanding (MoU). The memorandum facilitates transport between member countries through the use of the single-permit system.

The MoU provides the framework for co-operation between the signatory countries, which has resulted in the establishment of technical working groups for traffic standards, road-user charges and passenger transport.

The activities of the passenger-transport working group led to the establishment of joint route-management committees (JRMCS) for certain cross-border passenger routes within the Sacu. The JRMCS comprise representatives from the public and private sectors of the countries concerned, and are aimed at jointly managing the routes in consultation with all stakeholders.

Bilateral

Bilateral agreements facilitate and encourage cross-border road transport in support of regional trade.

The Maputo Development Corridor between South Africa and Mozambique is a good example.

The two governments also signed agreements dealing with road freight and passenger transport between the two countries, to facilitate the movement of goods and people by road, and to eliminate bureaucratic proceedings at border posts.

The project also includes the upgrading and modernisation of the railway line between the two countries and of Maputo harbour, at a cost of about R150 million.

On 29 September 2003, South Africa, Namibia and Botswana signed an MoU on the development and management of the Trans-Kalahari Corridor (TKC).

The TKC was formally established in 1998 following the completion of the Trans-Kgalagadi Highway in Botswana. The TKC links the three southern African countries by road.

One of the benefits of the TKC is that it links the hinterlands of Botswana, Namibia and South Africa (especially Gauteng) with the port of Walvis Bay. This port is the western seaboard port in southern Africa and is closest to shipping routes to and from markets in the Americas and Europe.

The strategic review of passenger transport commenced in 2005/06 and prioritised:

- subsidy analysis and reform options
- a national public-transport electronic fare collection and information platform
- an implementation strategy for travel-demand management
- integrated public-transport networks in metropolitan areas
- rural passenger transport.

The review was expected to be completed by March 2007.

The development of the TKC has the potential of significantly reducing transaction costs for SADC exporters and importers. This is expected to enable economic operators to become increasingly internationally competitive by enhancing their ability to exploit the benefits of preferential trade agreements with the United States of America (USA) and the European Union.

Domestic

The CBRTA fosters investment in the cross-border road-transport industry and provides high-quality cross-border freight and passenger road-transport services at reasonable prices. The agency works on a cost-recovery basis and any profits from cross-border permit fees are ploughed back into the system through a price reduction on permits in the following financial year. It also encourages small-business development in the industry.

Freight transport

In South Africa alone, road transport accounts for the movement of some 650 mt of freight traffic per year, compared with about 180 mt by rail.

The total throughput, inclusive of local production and imports, in the whole of the South African economy that requires logistics interventions amounted to 745 mt in 2003.

This comprised 49% for mining, 45% for manufacturing and 6% for agriculture. It is estimated that it cost R135 billion in 2003 in transport costs to move that quantity, where 62% of the total cost was attributable to long-haul road transport, 22% to road distribution, 8% each to rail and air, and 1% to pipeline and water modes. It is estimated that logistical costs to the South African economy are in the region of 14,7% of gross domestic product, with transport representing some 75% of that cost.

The department is working with provincial counterparts and major stakeholders on the Overload-Control Infrastructure Programme, which deals with reckless overloading. The programme is based on the construction of a strategic network of traffic-control centres and fixed weigh stations on major roads, supported by mobile weigh stations on alternative roads in the main freight corridors.

In September 2005, Minister Radebe launched the National Freight Logistics Strategy which aims to:

- regulate the freight system to ensure economic efficiency
- exercise effective oversight of the environmental and security elements of the freight system
- promote better physical and operational integration of seaports, airports and land-transport networks.

Road-traffic safety

The RTMC Act, 1999 (Act 20 of 1999), provides for the establishment of the RTMC to:

- enhance the overall quality of road-traffic management and service provision
- strengthen co-operation and co-ordination between the national, provincial and local spheres of government in the management of road traffic
- maximise the effectiveness of provincial and local government efforts, particularly in road-traffic law enforcement
- create business opportunities, particularly for the historically disadvantaged sectors, to supplement public-sector capacity
- guide and sustain the expansion of private-sector investment in road-traffic management.

The RTMC is a partnership between the three spheres of government to strengthen its collective capacity for road-traffic management. The process for adjudicating road-traffic offences has been reformed and is now administrative, rather than judicial.

The Constitution authorises provinces to exercise legislative and executive powers pertaining to road-

 The Intelligent Transport System (ITS) transmits real-time information on traffic and road conditions to ordinary road users, traffic authorities and emergency services so that they can make informed decisions in response to traffic delays and bad road conditions.

A five-year ITS pilot project that will focus particularly on the N1 Ben Schoeman between Pretoria and Johannesburg commenced in October 2006.

Over R51 million has been invested in this project, with 90 cameras and 19 variable message signs installed along the highway to capture and transmit traffic information for road users.

traffic safety, while the promotion thereof is primarily the responsibility of the Department of Transport.

The Road Traffic Safety Board (RTSB) endorses and acts as guardian of the Road Traffic Management Strategy (RTMS); assists in identifying, formulating and prioritising projects; monitors progress; and gives direction in the implementation of the RTMS.

The RTSB is made up of members of all three spheres of government, as well as traffic stakeholders in the private sector. The ministers of education, of health, of justice and constitutional development, of provincial and local government, of safety and security and of transport serve on the board.

Three Acts provide for the national co-ordination of regulation and law enforcement, the registration and licensing of motor vehicles, and the training and appointment of traffic officers. These

are the RTMC Act, 1999; the National Road-Traffic Amendment Act, 1999 (Act 21 of 1999); and the Administrative Adjudication of Road-Traffic Offences Amendment Act, 1999 (Act 22 of 1999).

The Administrative Adjudication of Road-Traffic Offences Amendment Act, 1999 provides for a more efficient system of collecting traffic fines and for the introduction of a points demerit system, linked to the CCF driver's licence.

In terms of the Act, motorists' drivers' licences will be suspended when they have 12 penalty points against their names. For every point over and above 12, the motorist's licence will be suspended for three months.

Points can easily be accumulated, for example, four penalty points each are given for exceeding the speed limit by 50%, driving an unregistered vehicle, refusing to undergo a blood or breathalyser test, or driving a vehicle without registration plates. The use of hand-held cellphones in vehicles is not allowed and non-compliance could cost a motorist two points.

When a driver's licence is suspended for a third time, it will be cancelled and the motorist will have to undergo a driver's test again. In more serious cases, a court may forbid a motorist to drive on a public road ever again. However, the system in no way detracts from the accused's constitutional right to a fair trial. The points demerit system is to be implemented in phases.

Arrive Alive

Government's Arrive Alive Road-Safety Campaign aims to:

- reduce the number of road-traffic accidents in general, and fatalities in particular, by 5%, compared with the same period the previous year
- improve road-user compliance with traffic laws
- forge an improved working relationship between traffic authorities in the various spheres of government.

South Africa's rate of pedestrian fatalities is unacceptably high. Factors that have exaggerated the problem in South Africa include lack of infrastructure, such as adequate pavements or road-crossing facilities; lack of education in road usage; a traffic mix with vehicles and pedestrians sharing the road; poor town and transport planning of facilities, such as around schools and community halls; and an absence of law enforcement.



A strong economy, high consumer and business confidence, low interest rates and increased affordability boosted new vehicle sales in South Africa to an all-time record high in March 2006. National Association of Automobile Manufacturers of South Africa (Naamsa) figures showed that a total of 56 341 new vehicles were sold in March 2006, up 29,1% on the 43 635 units sold in March 2005.

New car sales easily surpassed all previous monthly sales records, up 30,9% on the same period in 2005 and 15,8% higher than in February 2006. Sales for the first quarter of 2006 exceeded those in the 2005 first quarter by 21,3%.

As a result of the record sales, Naamsa revised its growth projections for 2006 from 10% to between 15% and 20%.

March sales of new commercial vehicles, bakkies and minibuses of 3 163 units were 24,5% higher than they were in March 2005.

Naamsa said there were substantial increases in sales of medium and heavy trucks. Medium commercial vehicles sales rose 38,3%, while those of heavy commercial vehicles rose by 29,5%.

Vehicle exports for the first two months of 2006 increased by 7 869 units, or 54,4%, compared with the same period in 2005.

Road Accident Fund (RAF)

The RAF is a public entity that compensates victims of motor-vehicle accidents for bodily injuries and/or loss of financial support caused by the death of a breadwinner. The rights for compensation are prescribed by the RAF Act, 1996 (Act 56 of 1996).

The RAF derives its income from a tax levied on petrol and diesel sold in South Africa.

The RAF pays out numerous claims each year due to accidents caused by recklessness; inconsiderate, negligent and aggressive driver behaviour; as well as drunken driving. In 2004/05, 164 346 claims totalling R11,7 billion were lodged. Some 13 441 claims totalling R82 million were finalised and paid out.

Legislation

In July 2006, Cabinet approved in principle that a road accident scheme would replace the RAF. The scheme will ensure that people involved in road accidents receive better healthcare after accidents, and receive benefit for their injuries and economic loss they may have suffered, irrespective of whether they were at fault at the time. The plan to restructure the RAF is expected to be implemented in 2008/09 after public consultation.

Rail transport

The Department of Transport embarked on a comprehensive recapitalisation programme to improve rail safety and revive rail transport as a viable public-transport alternative.

The National Railway Safety Regulator Act, 2002 (Act 16 of 2002), is the enabling legislation for the setting up of the independent Railway Safety Regulator, reporting and accountable to the Minister of Transport.

In October 2006, Minister Radebe launched the Rail Safety Inspectorate that would perform on-site safety checks on trains, focusing especially on Metro Rail's action plans to address identified dangers such as missing windows and defective doors, brakes and train wheels.

The regulator also oversees safety by conducting audits and inspections; undertaking occurrence investigations; analysing occurrence statistics, operator-safety plans and accident reports; and issuing notices to operators to cease an activity or to improve an unsafe activity. Failure to respond to

a notice could result in the operator, including the top management and even the board, being prosecuted.

The development of industrial and local standards, which will cover certain geographical locations and circumstances, is expected to be completed in 2008.

Spoornet

Spoornet is the largest division within Transnet, a commercialised organisation with the State as its sole shareholder. It represents the group's rail freight and long-distance passenger-transport interests.

Six major inland terminals and 19 satellite depots are strategically located to link with South Africa's major ports. Each terminal, with its satellite depots, handles containers, cars and bulk traffic.

The Natal (Natcor) corridor carries 78% of the steel exports while the Richards Bay coal line carries the remainder.

Thirteen wagon types are used to transport steel, while customised wagons are used for raw material such as iron ore, coal and coke, and fluxes like lime and dolomite. In future, wagons will be designed to optimise assets, operational functionality and efficiency. The fleet for transporting steel includes wagon types suited for either flat or long products. The 'megatrain' with its payload of 34 200 tons is 3,9 km long and has greatly increased capacity on the Sishen-Saldanha Iron Ore export line.

Spoornet also concentrates on ad hoc and consignments for small, short-term and cash customers.

A wide range of commodities are transported in containers, and multipurpose and specialised wagons.

Spoornet offers freight logistics solutions to customers in all industries countrywide. The core of this service is a centrally enabled fixed train plan.

Corporate Social Investment (CSI)

CSI is fundamental to Spoornet's business as it puts a unique feature to good use for community support.

Spoornet's community involvement focuses on HIV and AIDS, and specifically, community- and home-based care. In future, CSI will, among other initiatives, include poverty alleviation and putting Spoornet's underused assets at the disposal

of community-development initiatives and organisations. Other community-based initiatives will be based on identified needs in the areas of education, health, sport, etc.

HIV and AIDS

Projects are selected for their sustainability and have the following features:

- volunteers trained in and practising home-based care, including nursing the ill, counselling the patient and family, establishing support groups, and supervising nutrition and adherence to treatment
- income-generation, including food gardens, community bakeries or arts and crafts, where the emphasis is on ensuring the welfare of people living with or affected by HIV and AIDS
- community participation, ensuring that the community has ownership of the project and that the discriminatory stigma often attached to people affected by HIV and AIDS is mitigated.

Spoornet's contribution to these projects has received wide acknowledgement and public recognition.

Safety

While the major focus is on training and nurturing internal commitment to safe operations at every level, a nationwide community campaign mainly targets communities living and working close to the railway infrastructure. These are people crossing the railway line and children in schools and in informal settlements encroaching on the railway areas. These efforts have already impacted on millions of people.

Spoornet's safety plan has evolved out of a safety-gap analysis conducted by international consultants. This led to a major restructuring exercise, streamlining operational management processes with a defined focus on technical and operational safety aspects.

Economic empowerment

Since 1994, Spoornet has been committed to affirmative procurement, within the framework of BEE. Tender rules and procurement policies take cognisance of this and line managers have, in turn, been trained to effect procurement without compromising specifications, safety or standards.

Tender processes have been simplified, targets have been set and progress is being monitored. BEE suppliers are offered training to help them understand procurement policies.

Employment equity

Spoornet's performance in terms of employment equity continues to improve. Policies and procedures have been reviewed and an accelerated programme for training and development is reaping rewards. The fast-track initiative continues to improve gender representation in Spoornet.

Infrastructure

Spoornet's freight operations comprise general freight business, a heavy-haul export coal-line and a heavy-haul ore-export line. Spoornet has a 22 000-km rail network, of which about 1 500 km are heavy-haul lines. The network connects the ports and hinterland of South Africa and the rail networks of the sub-Saharan region. Spoornet operates a long-distance passenger-transport service in the form of the Shosholozza Meyl and the luxurious Blue Train. Consultations are under way to reposition Shosholozza Meyl outside Spoornet, while offering concessioning opportunities for the Blue Train. Divesting of these assets will allow Spoornet to concentrate on its freight operations and infrastructure.

Operations

Spoornet's operational achievements during 2005/06 included the following:

- The reliability and availability of rolling stock was addressed. All major maintenance programmes are being incorporated into Transwerk, which will be responsible for ensuring that rolling stock is available and reliable.
- The Transnet Board approved an extra maintenance budget of R1,6-billion for 2007 to address the maintenance backlog for locomotives, wagons and rail infrastructure. This is in addition to the R5,7-billion capital programme for 2006/07, which includes the capitalisation of major maintenance in terms of international financial reporting standards.
- The Vulindlela coal-line programme increased capacity, resulting in record daily volumes.
- The focus on the iron-ore line raised daily volumes at the port of Saldanha to record levels

with 29,6 mt being moved compared with 28,2 mt in 2005. The target for 2006/07 was 32,7 mt.

- A contract for the purchase of 110 dual-voltage electric locomotives – Spoornet's first new locomotives in 16 years – was awarded. They will run on the coal line.
- The new capital-expenditure programme spent R3,8 billion on capital projects.

Business units

Spoornet has several transport divisions providing transport services in all transport modes.

GFB Commercial

GFB Commercial is the largest of Spoornet's business units, accounting for some 70% of its income and handling some 52% of its freight tonnage.

GFB Commercial manages the flow of material and information between suppliers and customers along sections of their supply chains. It strives to integrate the rail component of the supply chain with adjoining components to increase supply-chain efficiency and reliability at the lowest-possible cost.

COALink

COALink provides world-class transport for South Africa's export coal from the Mpumalanga coalfields to the Richards Bay Coal Terminal. It is one of the world's most efficient bulk export logistic supply chains, and its steam-coal export tonnage is second only to Australia's.

Orex

Orex deals with the transport of iron ore over the 861-km railway line from Sishen to Saldanha. Following the high demand for ore in the export markets, improvements to the line are under way to increase the capacity of the Orex line from 18 mt a year to more than 22 mt a year.

In a recent benchmark study, Orex was rated as 38% better than the next best-practice operator in its field.

Luxrail

Luxrail's primary focus is the operation of the Blue Train, which caters for a growing international

tourist market. It has won several World Travel Awards for being the world's leading luxury train. Crossing South Africa's varied landscape along four routes, the trains combine the comfort and luxury of a five-star hotel with unparalleled journeys.

Luxrail also manages contracts with other luxury train operators using Spoornet's infrastructure. These include Rovos Rail, which travels throughout southern Africa, and the Spier train, which travels on the Western Cape wine routes.

Shosholoz Meyl

Shosholoz Meyl provides affordable intercity passenger rail services to and from South African destinations. These include Johannesburg, Durban, Makhado, Polokwane, Komatipoort, East London, Port Elizabeth, Bloemfontein, Kimberley and Cape Town. Services also connect with destinations in Zimbabwe, Mozambique and Swaziland.

About four million passengers use Shosholoz Meyl's services a year.

Government has committed R305 million to the Khayelitsha Rail Extension (KRE) Project that will provide a much-needed railway extension to the more than 450 000 residents of Khayelitsha. The existing rail service caters for the needs of only 50% of residents, with the rest relying heavily on buses and taxis.

The rail infrastructure that the KRE will provide entails:

- 4,5 km of double electrified and signalled rail line
- four road-over-rail bridges
- four fully accessible stations
- two fully accessible transport interchanges
- alterations to existing road infrastructure
- road-network upgrades to ensure connectivity and sufficient accessibility to stations and bridges
- three newly refurbished train-sets.

By October 2006, the project had given work to over 100 local people, of whom 60% were women and youth. It also helped create opportunities for more than 14 locally based, small and medium-sized enterprises.

The capital cost of the infrastructure that will become the property of the City of Cape Town is estimated at R95 million.

Spoornet International Joint Ventures (IJV)

IJV is responsible for all Spoornet activities outside South Africa, as well as for all non-core activities and joint ventures within the country.

Spoornet aims to be a global leader in operations on the 1 000-mm and 1 067-mm (narrow gauge) rail networks of the world, especially in Africa. The IJV is Spoornet's vehicle for achieving this and other objectives outside the company's normal areas of activity.

South African Rail Commuter Corporation (SARCC)-Metrorail

The SARCC was established in 1990 to provide commuter rail services in South Africa. All the passenger rails entities in South Africa are being consolidated. The first phase of the consolidation has been concluded with Metrorail being transferred to the SARCC with effect from 1 May 2006. The second phase will see Shosholozo Meyl integrated under the Department of Transport.

In the long term, this change will lead to better provision of commuter-rail services.

The SARCC-Metrorail operates two major businesses – Rail Commuter Services and Property Management.

Rail Commuter Services is operated as a social-responsibility programme requiring considerable government subsidisation. The assets that were transferred to the SARCC-Metrorail included property with a net potential of R2 billion in the main metropolitan areas.

The corporation's role as concessionaire is to establish and monitor service standards, safety and security levels, and operating efficiencies. More than two million people use the commuter rail service daily.

In 2004/05, the SARCC infrastructure and assets comprised 478 stations, some 2 240 km of electrified single-rail track and 4 564 coaches.

Intersite

Commuter rail stations and properties are managed and developed by Intersite Property Management Services (Pty) Limited. Intersite is a wholly owned subsidiary of SARCC-Metrorail that was formed in 1992.

The commuter rail portfolio comprises 478 stations, 4 200 ha of land, and property in the major metropolitan areas of Johannesburg, Pretoria, Durban and Cape Town. Apart from building new stations and upgrading and maintaining stations, Intersite is commercialising them and generating income for commuter rail.

Since 1992, Intersite has completed a number of station upgrades at a cost of R565,8 million, while a further R205,7 million has been invested in the former Metrorail operational assets. Several new stations/intermodal transport facilities were also completed totalling some R106,6 million.

In 2004/05, Intersite generated some R198 million for the SARCC-Metrorail.

The SARCC-Metrorail is implementing an active programme to improve the state of commuter rail rolling stock.

This is accomplished by increasing the number of coaches in the refurbishment process and improving repair standards. The new standard includes the upgrade of a modular body train set that shares the same aesthetics as the 10M3 and 10M4 coaches currently running in the Johannesburg and Cape Town regions.

During 2005/06, 458 coaches were allocated for general overhaul and upgrade at a cost of R1 000 million.

Civil aviation

By mid-2005, there were 9 063 aircraft on the South African register. At the end of 2005, there were 13 891 active pilots and 9 314 aircraft in South Africa.

Corridors for the domestic movement of raw material

Sishen/Thabazimbi/Beeshoek – Bijkor/Newcastle/Dunswart/Union	Iron ore
Roosenekal – Clewer/Witbank	Iron ore
Grootgeluk – Bijkor/Newcastle/Saldanha	Coal
Ogies – Bijkor/Dunswart/Saldanha/Union	Coal
Musina – Bijkor	Coal
Meyerton – Bijkor/Newcastle/Dunswart	Dolomite
Lime Acres – Bijkor/Newcastle/Dunswart/Clewer/Middelburg	Coal
Richards Bay – Bijkor/Newcastle	Imported coking coal

The number of airlines operating in South African airspace increased from nine in 1994 to more than 50 in 2004. Some 21 air-traffic control centres support operations covering some 145 licensed airports with paved runways, and over 580 aerodromes with unpaved runways.

Airlift Strategy

In July 2006, government approved a five-year strategy for the regulation of air transport in support of the Accelerated and Shared Growth Initiative for South Africa.

The Airlift Strategy aims to increase aviation's contribution to sustainable economic growth and job creation by providing an enabling network that allows suppliers and consumers of air-transport services to exercise reasonable flexibility and choice. The strategy especially aims at enhancing South Africa's prospects as a preferred travel destination and synchronising the basis for bilateral air-service negotiations with other national priorities.

The strategy focuses on the following key issues in particular:

- Aligning mandates for air-service negotiations with government policies and strategies, especially the Tourism Growth Strategy. Markets and routes are identified in line with the Tourism Strategy and prioritised according to national interests regarding strategic markets.
- Unblocking capacity constraints by negotiating air-service capacity ahead of demand to ensure availability of adequate capacity and to enable airlines to respond to market demand rapidly.
- Setting targets for liberalising key elements of bilateral air-service agreements concerning especially the multiple designations of airlines, tariff regimes, code-share frameworks and implementation of the Yamoussoukro Decision (YD).
- Addressing airline-safety oversight capacity at institutional level.
- Withdrawing the rights of a South African airline not using its capacity allotment in terms of its international air-service licence within a specified time.
- Granting additional capacity in terms of a particular air-service agreement to compensate for the capacity shortfall on a route due to a South African airline's non-performance.

- Withdrawing and reallocating airport slots not used by foreign and South African airlines at least 80% of the time within a given International Air Transport Association (IATA) timetable period.
- Evaluating and setting negotiation mandates in terms of actual and potential impact on the network of air services serving South Africa and its key markets, because globalisation and high levels of co-operation among airlines have made air-service agreements and routes interdependent. In particular, the African Union (AU) Common External Air Transport Policy in respect of open-skies arrangements (other than the YD) and the European Union-Ownership clause (once approved) will be applied.

Efficient airports and effective airspace management are critical to the future development of air transport. The Air Freight Logistics Project, the creation of the National Airports Development Plan, and a project aimed at the possible establishment of an independent slot-co-ordinator for South Africa will address air-transport infrastructure. The principle of 'fair and equal opportunity' enshrined in the bilateral

Construction of the Gautrain Rapid Rail Link commenced in September 2006.

The Gautrain Project will give South Africa its first-ever world-class rapid rail system in response to significant transport challenges such as road congestion and the need for better public transport.

The Department of Transport and the Gautrain Rapid Rail Link are focusing on the integration of travel-demand management, networks, fares, information, communication, technical matters and on integration at transport modes and of transport nodes with city precincts.

The Gautrain Project is expected to catalyse the transformation of public transport, especially in Gauteng, and will have a direct effect on integrated transport planning, the passenger rail plan and the public-transport plan.

The 2010 Public-Transport Infrastructure Fund of R3,8 billion will result in big improvements to the public-transport system, some of which will be integrated into the Gautrain Project.

It is expected that the Gautrain will eventually be part of a newly created mass-transit system.

air-service agreements will be applied in cases of slot-constrained airports to achieve maximum economic benefits within a pro-competition environment.

Implementing the strategy successfully is expected to significantly increase the number of passengers moving through OR Tambo International Airport (formerly Johannesburg International Airport), Cape Town International Airport and Durban International Airport.

The Airports Company of South Africa (Acса) will spend some R8 billion over the next few years on modernising and upgrading major airports in South Africa, partly to accommodate its fleet of Airbus A380, and to build a new passenger and cargo airport as part of the Dube Trade Port complex, north of Durban. The Air Traffic and Navigation Services (ATNS) Company has improved South Africa's airspace-management safety scenarios by investing in infrastructure. It spent R96 million on renewing terrestrial aeronautical navigation systems, and some R160 million on replacing older radar systems in parts of South Africa. In August 2006, ATNS was appointed the Aeronautical Regional Monitoring Agency for Africa.

Airports

Acса, which was officially established on 23 July 1993, owns and operates South Africa's 10 principal airports, including the three major international airports in Johannesburg, Cape Town and Durban.

By March 2006, average annual growth across South Africa's three major airports was 7,8%, with the highest annual growth of 9,3% at Cape Town International, followed by 7,7% at Durban International and 7,1% at OR Tambo International Airport.

Acса also has a 35-year concession to operate the Pilanesberg Airport near Sun City in North West. The other six airports are Bloemfontein, Port

Elizabeth, East London, George, Kimberley, Upington and Pilanesberg.

Acса's three core activities are:

- airport services, including the development of airport infrastructure such as providing and maintaining runways, taxiways and aprons; terminal facilities; and aviation security, fire and rescue services
- retail and advertising activities, including the provision of space within terminals to appropriate retailers; and other sites to operations such as car-hire firms, banks and space for advertisers
- property activities, retail and office premises, and car-parking facilities, as well as functioning as commercial landlords.

Acса is the largest airports authority in Africa. Together, its 10 airports handle more than 200 000 aircraft landing, and 23 million passengers arriving and departing annually.

Air-Traffic Navigation Services

The ATNS is responsible for the efficient running of South Africa's air-traffic control systems and the maintenance of navigation equipment, including the deployment of air-traffic controllers and aviation technical staff.

The company's college is a well-established facility that is used by several African countries for air-traffic services training and for technical training for equipment support.

The ATNS does not receive government transfers and derives its funding from its operations.

The company is improving service-delivery targets, reducing pilot and controller workloads, and enhancing the efficiency of the system by implementing the R228-million South African Advanced Air-Traffic System (Saaats).

The benefits of Saaats to airlines include a reduction in delays due to improved approach sequencing, significant fuel savings, improved coverage, and optimised routings in oceanic sectors.

A joint operations centre at the OR Tambo International Airport is the nerve centre of all airport communications and operations. From here, all activities related to maintenance and building management are co-ordinated. The centre serves as a control office, crisis-control centre for emergencies, and an information technology (IT) centre.

 The African Ministers' Yamoussoukro Decision of 1999 aims to liberalise the intra-African aviation market concerning such matters as traffic rights, capacity, frequency and pricing. It prevents countries from unilaterally limiting the volume of traffic, type of aircraft to be operated or number of flights a week, except for environmental, safety, technical or other special reasons.

Airlines

SAA is by far the largest air carrier in Africa, with the OR Tambo International Airport being the busiest airport in Africa. Nearly 75% of air-traffic activity in Africa takes place in the region.

In April 2006, SAA became a member of the worldwide Star Alliance, the first African airline to join the elite international network.

The network represents 18 of the world's leading airlines, travelling to 842 destinations across 152 countries. The alliance processes 425 million passengers annually.

SAA's membership adds 21 new African routes and destinations to the Star Alliance Network. Other members of the network include Air Canada, Lufthansa and United Airlines.

By the end of March 2006, SAA had 17 aircraft and 56 on lease. In 2005/06, the tonnage of cargo that SAA aircraft carried increased by 5,1% to 185 000.

South Africa has a number of airlines flying between its major cities and to some of its smaller ones, with fares ranging from first-class to cut-price economy. Flights can be booked online from anywhere in the world.

Seven major domestic airlines operate in the country, as well as a number of smaller charter airline companies.

SAA, British Airways (BA)/Comair, SA Express, SA Airlink and Interair operate scheduled air services within South Africa and the Indian Ocean islands. In addition to serving Africa, SAA operates services to Europe, Latin America and the Far East.

Scheduled international air services are also provided by Air Afrique, Air Austral, Air Botswana, Air France, Air Gabon, Air Madagascar, Air Malawi, Air Mauritius, Air Namibia, Air Portugal, Air Seychelles, Air Tanzania, Air Zimbabwe, Airlink Swaziland, Alliance Express, BA, Cameroon Airlines, Delta Airlines, El Al, Egyptair, Emirates, Ethiopian Airlines, Ghana Airways, Iberia, KLM, Kenya Airways, LAM, LTU, Lufthansa, MK Airlines, Malaysia Airlines, Martinair Holland, Northwest Airlines, Olympic Airways, Qantas, Royal Air Maroc, Saudi Arabian Airlines, Singapore Airlines, Swissair, Taag, Thai International, Turkish Airlines, Uganda Airlines, United Airlines, Varig, Virgin Atlantic, Yemenia, Zambian Air Services and Zambian Skyways.

Aviation safety and security

South Africa complies with the ICAO-recommended practices on aviation security.

South African airlines participated in the IATA Operation Safety Audit Programme for the first time in 2005/06. SAA became the first southern African airline to successfully complete its safety audit.

South Africa is also participating in the development and establishment of an upper airspace control centre for the SADC. This initiative proposes that a single centre hosted by an SADC country will provide air-navigation services to all aircraft flying above 24 500 feet.

Emphasis is being placed on improved international access to and from South Africa by air, the expansion of the bilateral air-services framework, the implementation of the YD, effective monitoring of airline activities, and the efficient licensing and regulation of domestic and international air services. Other aims include promoting:

- safer skies: this involves ensuring that adequate safety and upper-airspace-control regimes are in place across the continent, supported by efficient air-traffic and navigational services and systematic human resource (HR) development programmes
- efficient and effective aviation networks: this involves regulating as necessary to make air transport more affordable, creating regional hubs and air-carrier alliances, and supporting one another to establish a high-quality African airports network.

South African aviation accident and incident statistics for 1996 to 2006 reflect an average of 150 accidents and an average of 31 fatalities, with an estimated 1 500 incidents a year.

In 2006, the then Johannesburg International Airport was once again chosen as the winner of the African Aviation Award for African Airport of the Year 2005.

This was in recognition of the continued achievements made in critical areas, including airport management and development.

The award ceremony took place during African Aviation's 15th annual conference in Casablanca, Morocco, on 14 March 2006.

Human error causes 80% of accidents and mechanical problems the rest.

Ports

Commercial ports play a crucial role in South Africa's transport, logistics and socio-economic development. About 98% of South Africa's exports are conveyed by sea.

The NPA is the largest port authority on the continent. It owns and manages South Africa's ports at Richards Bay, Durban, East London, Port Elizabeth, Mossel Bay, Cape Town, Saldanha and Ngqura.

The NPA provides suitable infrastructure as a conduit for the country's imports and exports. As port landlord, NPA is responsible for:

- developing and managing port properties

- developing, advising and implementing national port policies
- providing and maintaining port infrastructure (i.e. breakwaters, seawalls, channels, basins, quay walls and jetties), and the sustainability of ports and their environments
- co-ordinating marketing and promotional activities for each port.

The NPA also has a control function, which includes:

- providing vessel-traffic control and navigational aids
- licensing and leasing terminals to operators
- monitoring the performance of port operators
- ensuring the orderly, efficient and reliable transfer of cargo and passengers between sea and land.

In 2005/06, the NPA increased turnover by 11% from R4 994 million to R5 543 million, and operating profit by 18% from R3 211 million to R3 798 million.

With the conclusion of the NPA Bill, the South African port system is at the threshold of an exciting era. The NPA Bill, a product of government's National Commercial Ports Policy, provides South African ports with insight into government's vision for ports, and a clear direction

The Airports Company of South Africa (Acsa) is constructing its largest-ever facility, the R2-billion Central Terminal Building (CTB), at the OR Tambo International Airport.

The project is part of the R5,2-billion infrastructure-development budget for the entire Acsa network of airports. Of this budget, R3,5 billion will be spent at OR Tambo International Airport. The new CTB, which will link the existing domestic and international terminal buildings, will serve as one of the stations on the Gautrain route and provide the required additional international terminal building capacity in terms of holding lounges, airside commercial areas and boarding gates.

The completion date for the construction of the CTB has been accelerated to the end of 2009 because:

- South Africa will host the 2010 Fifa World Cup which will increase the number of visitors to the country
- new-generation large aircraft such as the Airbus A380 are expected to start flying to and from OR Tambo International Airport late in 2008.

The CTB will be a multilevel building with floor levels complementing the adjacent terminals and roadway system. Departures will be on the upper level and arrivals on the ground level, while the basements will accommodate services and baggage handling.

Of the total project cost, some 35% will go to black shareholders.

Passenger arrivals and departures at South African airports

Airport	Domestic	International
Arrivals		
OR Tambo International	4 481 520	3 177 330
Cape Town International	2 737 400	584 627
Durban International	1 821 178	10 831
Departures		
OR Tambo International	4 518 872	3 247 068
Cape Town International	2 766 290	583 034
Durban International	1 841 849	12 067

Source: *Airports Company of South Africa*

of how ports are to be managed and operated under the NPA.

Based on the National Commercial Ports Policy, the vision for South African ports is to become a system of ports, seamlessly integrated in the logistics network that is jointly and individually self-sustainable.

This will be achieved through the delivery of high levels of service and increasing efficiency for a growing customer base. It will result in the enhancement of South Africa's global competitiveness and facilitate the expansion of the economy through socially and environmentally sustainable port development.

The NPA's business consists of the following divisions:

Trade and Logistics

This division is the strategic business arm of the NPA. It is responsible for customer-relationship marketing along with a combination of technology and HR.

Landlord Services

Landlord Services ensures the planning, development and optimal use of port property and infrastructure, as well as a safe, secure and healthy port environment.

The division consists of property, engineering, and planning and development. Landlord Services has traditionally been the NPA's major revenue earner, initially through wharfage, and currently through cargo dues.

Maritime Services

Maritime Services includes improving efficiency in shipping services, dredging navigational waterways, and ensuring a safe shipping environment through vessel-tracing services, pilotage and lighthouse services.

The ports provide:

- pilotage, tug and berthing services
- bulk-handling installations to handle dry and liquid bulk, complemented by storage facilities
- container-handling facilities
- multipurpose terminals for the handling of breakbulk and containers
- access to rail and road links
- ship-repair facilities
- feeder services.

Lighthouse Services

Lighthouse Services operates 45 lighthouses along the South African coastline.

The NPA has vessel-traffic systems in all ports, ensuring improved safety of navigation within the port and port limits, and enhancing the service provided to the port user.

Marine Services

Marine Services operates 24 large tugs, eight work boats, four pilot boats and 14 launches in South Africa's commercial ports. Twenty-four hour services are provided at the ports of Durban and Richards Bay.

Portcon International

This division provides a consultancy and training service appropriate to ports operating within the African context.

Port and Corporate Affairs

This division is responsible for the efficient and profitable running of the ports as service-delivery platforms.

Deepwater ports

The port of Richards Bay is a relatively young port, having opened on 1 April 1976. It is South Africa's leading port in terms of cargo volumes and handled 89 mt of cargo in 2005.

The port covers a surface area of 2 157 ha on land and 1 443 ha on water, making it the biggest port in South Africa in terms of size. It offers easy access to South Africa's national rail network with substantial growth capacity in the rail network link.

One of the port's inherent strengths is its deep-water infrastructure, with a maximum permissible

The Airports Company of South Africa (Acса) is embarking on a R5,2-billion capital-expenditure programme, and an Air Traffic Navigation Services (ATNS) programme of R225,8 million. This includes the construction of A380 aircraft stands, upgrades at passenger-handling areas and improved air-traffic-management systems. ATNS is improving its capacity to handle some 72 air-traffic movements an hour, which is linked to Acса's ground-infrastructure improvement programme to accommodate those movements.

draught of 17,5 m. This, coupled with the high-tech state-of-the-art terminal infrastructures, allows for high-speed, high-volume cargo-handling and a fast turnaround of vessels.

During 2005/06, Richards Bay handled 1 735 ships with a gross tonnage of 59 042 072 and 89 256 108 t of cargo, of which 84 875 553 t was bulk cargo and 4 380 555 t breakbulk.

Interesting facts and figures about South African Airways (SAA):

- SAA serves more than 842 destinations throughout the world.
- It carries more than seven million passengers each year providing access to more than 150 countries.
- It employs close to 12 000 people worldwide, including 3 600 at SAA Technical. Staff include some 2 800 flight attendants and more than 800 pilots.
- SAA has a development programme known as Women in Aviation to develop high-calibre female managers to feed SAA's executive leadership.
- SAA Technical at OR Tambo International Airport is the largest maintenance facility in Africa.
- SAA undertakes maintenance for more than 40 major airlines, including British Airways (BA), Singapore Airlines, Air France and Lufthansa.
- Some 20% of SAA's domestic travellers fly more than one trip a month on average.
- SAA flies more than 20 domestic routes; there are 20 flights between Cape Town and Johannesburg per day.
- Airbuses offer a choice of 15 movie channels in addition to video games, short features, actuality programmes and travel information.
- Airbus aircraft have 12 audio channels and a jukebox feature, allowing passengers to select and play their choice of music.
- SAA's business class flat-bed seat is the best in the world, according to Skytrax, which also surveyed those of competitors, including BA and Virgin Atlantic.
- Voyager, SAA's loyalty programme, has 1,8 million members.
- Each year, wine experts sample 800 wines and select 70 for serving on-board the aircraft.
- The Baobab Lounge for business class international travellers at OR Tambo International Airport has 33 workstations offering ergonomic business modules, computers, printers and faxes.

Source: South African Airways

Exports totalled 83 125 870 t and imports 6 130 238 t.

Richards Bay's port facilities comprise a dry bulk terminal, a multipurpose terminal and the privately operated coal terminal. Other private operators within the port include several wood-chip export terminals and a bulk liquid terminal.

During 2005/06, the Richards Bay coal terminal handled 68,35 mt of export coal, an increase of 2,3% on the previous year. The terminal is being refurbished to increase its capacity to 92 mt annually.

Saldanha port, situated on the West Coast, is the deepest and the largest natural port in southern Africa. The port is unique in that it has a purpose-built railroad serving a bulk-handling facility, which is connected to a dedicated jetty for the shipment of iron ore.

Saldanha also serves as a major crude-oil importation and transshipment port.

During 2005/06, the port of Saldanha Bay handled 537 ships with a total gross tonnage of 23 779 523 t. Cargo handled by the port totalled 36 664 303 tonnes, including oil.

Hub ports

The port of Durban is a full-service general cargo and container port. It is the most conveniently situated port for the industrialised Durban/Pinetown and Gauteng areas and cross-border traffic.

The port of Durban handles the greatest volume of sea-going traffic of any port in southern Africa. In 2005/06, it handled 4 551 sea-going ships with a gross tonnage of 94 543 236 t which was equal to almost 36% of that of all ports combined.

Cargo handled during 2005/06 totalled 42 668 119 t, which included oil and petroleum products. This tonnage, however, excluded containers.

The port of Durban has a surface land area of 1 854 ha. The Durban container terminal is the largest such facility in the southern hemisphere and is geared to expand in terms of cargo handling.

It is especially effective as a hub port for cargo to and from the Far East, Europe and the Americas, serving South Africa, as well as west and east African countries. The port is also the premier port for a wide range of commodities, including coal, mineral ores, granite, chemicals, petrochemicals, steel, forest products, citrus products, sugar and grain.

The Durban car terminal – the country's largest import and export facility for the motor industry – handled 278 000 motor units in 2005/06 (214 000 in 2004/05). This figure was expected to reach between 330 000 and 340 000 units during 2006/07.

The port of Cape Town is one of two hubs in South Africa. It offers multipurpose dry, and liquid and dry terminals, as well as fully serviced dry docks. The port is renowned for its deciduous fruit and frozen-product exports. A major fishing industry is also based here.

The port of Cape Town is strategically positioned and ideally situated to serve as a hub for cargoes between Europe, the Americas, Africa, Asia and Oceania. The port provides a complex network of services to its clients and a favourable environment for all stakeholders, to maximise benefits to the local and national economy.

Integrated intermodal cargo systems, ship repair, bunkering facilities and the reefer trade are examples of these services.

In 2005/06, Cape Town handled 3 400 vessels with a gross tonnage of 48 778 963. Total cargo handled at the port (excluding containers) was 3 718 005 t, of which 3 088 075 t were bulk cargo, and 629 930 t breakbulk.

In 2005/06, Transnet approved investment of R2,075 billion to upgrade Durban and Cape Town container terminals. The aim is to improve the capacity within the ports and to upgrade and develop the facilities to meet the economy's growing demands.

An amount of R1,437 billion was expected to be invested in the port of Durban to develop the container-handling facility. An amount of R600 million was approved to upgrade the Cape Town container terminal.

In addition, R10 million was invested in 2005/06 to increase reefer infrastructure at the Cape Town Container Terminal.

These projects formed part of the five-year R37-billion infrastructure plan that was approved by Cabinet in 2004. They will strengthen Transnet's position to provide a seamless intermodal freight transport service that is consistent with the company's strategic vision of reducing the cost of doing business in South Africa.

The port of East London is situated at the mouth of the Buffalo River on South Africa's east coast, and is the country's only commercial river port.

It boasts a large container terminal and grain elevator, as it is the largest exporter of maize.

With a world-class R80-million car terminal, the port has become one of the major motor-vehicle export and import terminals in South Africa.

East London handled 399 ships during 2005/06 with a gross tonnage of 8 487 024 t.

Multipurpose ports

The port of Port Elizabeth, with its proximity to heavily industrialised and intensively farmed areas, has facilities for the handling of all commodities – bulk, general and container cargo.

Being situated at the centre of the country's motor-vehicle-manufacturing industry, the port imports large volumes of containerised components and raw material for this industry. The bulk of exports comprises agricultural products. Apart from agricultural produce, manganese ore, motor-vehicle-industry-related products and steel are exported.

The container terminal has maintained the highest handling rates in Africa in recent years and is accredited to International Standards Organisation (ISO) 9002.

Port Elizabeth handled 1 390 ships in 2005/06, with a total tonnage of 26 131 718 t.

Air transport generates about 470 000 direct and indirect jobs across Africa, contributing over US\$11,3 billion to Africa's gross domestic product (GDP). If sectors that depend on air transport for their existence such as transport are included, then the number of jobs generated increases to some 3,1 million and the contribution to GDP to some US\$55,5 billion.

African airlines directly employ over 82 000 people, with about 46 500 working in African aerospace (maintenance companies, air-traffic control, etc.) and over 21 000 working for African airport operators, with the remaining 18 000 odd people performing on-site airport jobs at airports across Africa. Including all air-transport-related jobs, the figures rise to over 216 000 for airline employment, over 151 000 for aerospace, over 56 000 for airports, and just under 47 000 for on-site employment.

The airlines contribute about US\$7,5 billion to African GDP, the airports just over US\$2 billion, and aerospace just over US\$1,5 billion.

Cargo handled during 2005/06 amounted to 3 983 054 t excluding containers, of which 3 116 274 t were bulk cargo, and 866 780 t breakbulk.

Located mid-way between Cape Town and Port Elizabeth, the port of Mossel Bay has in the past specialised in serving the local inshore and deep-sea fishing industry, as well as limited commercial cargo. However, it now serves the oil industry as well as other client-orientated marine cargo handling.

This port is the only South African port that operates two offshore mooring points within port limits. Both mooring points are used for the transport of refined petroleum products.

During 2005/06, Mossel Bay handled 2 323 vessels with a combined gross tonnage of 2 780 478 t, of which South African trawlers totalled 1 643 vessels with 197 817 t. The port handled a total tonnage of 1 483 234 t, of which 1 396 077 t was bulk cargo (almost entirely oil products) and 87 157 t breakbulk.

Some 388 109 t of cargo were landed at the port, and 1 095 125 t shipped.

Pipelines

Petronet owns, maintains and operates a network of 3 000 km of high-pressure petroleum and gas pipelines.

Transnet has approved R3 billion for the design, construction and commissioning of a new multi-products pipeline between Durban and Gauteng. The new pipeline will enhance Petronet's capacity to service the transport needs of refined petroleum products such as petrol, diesel and jet fuel along the Durban-Gauteng corridor.

Apart from doubling the current pipeline capacity to accommodate growing need, there is also the imperative to have this pipeline completed to coincide with South Africa's hosting of the 2010 Soccer World Cup. As the safest mode of bulk petroleum product transportation, this pipeline project will, in the long term, ensure optimal use of the fuel transport infrastructure in the country.

Maritime affairs

Maritime administration, legislation and shipping

Marine transport encompasses all forms of transport by sea, intermodal links and inland ports. It caters to a large degree for the freight market, and in the South African context offers no significant passenger-carrying ability.

South Africa's maritime administration and legislation is the responsibility of the Department of Transport, and is controlled on its behalf by Samsa in terms of the Samsa Act, 1998 (Act 5 of 1998).

The broad aim of Samsa is to maintain the safety of life and property at sea within South Africa's area of maritime jurisdiction, and to ensure the prevention of marine pollution by oil and other substances emanating from ships.

The Department of Environmental Affairs and Tourism is responsible for combating pollution and has specific means at its disposal, such as the Kuswag coast-watch vessels, with which to perform this function.

Samsa is responsible for introducing and maintaining international standards set by the International Maritime Organisation in London, with respect to:

- ship construction
- maritime training and training curricula
- watch-keeping
- certification of seafarers
- manning and operation of local and foreign ships
- maritime search-and-rescue
- marine communications and radio navigation aids
- pollution prevention.

Samsa has an operations unit, a policy unit and a corporate support division to handle all financial, HR and IT issues.

Other functions include the registration of ships, the establishment of a coastal patrol service, and the management of marine casualties and wrecks.

Samsa is steadily improving its capacity to monitor safety standards of foreign vessels. A considerable number of ships calling at South Africa's major ports are inspected, and those not in compliance with international safety standards are detained until the deficiencies were corrected.

The South African Marine Corporation (Safmarine), Unicorn Lines and Griffin Shipping are South Africa's predominant shipping lines. Their fleets of container, oil tanker, general cargo and bulk cargo vessels operate not only between South African ports, but also as cross-traders to other parts of the world.

Training

The South African Maritime Training Academy at Simonstown in the Western Cape provides

advanced training to the broader maritime sector, including the merchant navy, harbour-craft operations, the fishing industry and the South African Navy.

The South African Merchant Navy Academy, General Botha, established at Granger Bay, is integrated with the Cape Peninsula University of Technology, with a similar training facility at the Durban Institute of Technology. Deck and engineering students and officers complete their academic training at the Cape Peninsula University of Technology and the Durban Institute of Technology, while lower classes of certificates are offered at the Training Centre for Seamen, situated in the Duncan Dock area in Cape Town.

This training institution also caters for deck, engine-room and catering department ratings.

Samsa is responsible for setting all standards of training certification and watch-keeping on behalf of the Department of Transport, while the Maritime Education and Training Board is responsible for the accreditation of all maritime courses.

Other maritime training organisations offer a wide range of courses that have been developed within the South African maritime industry. These are situated mainly in the ports of Cape Town and Durban and, to a lesser degree, Port Elizabeth.

Search-and-rescue services

The Department of Transport is responsible for the providing a search-and-rescue function in South Africa. The search-and-rescue programme has been in existence since 1948.

The South African Search-and-Rescue Organisation (Sasar) provides South Africa with a world-class search-and-rescue capability.

Sasar is a voluntary organisation functioning under the auspices of the Department of Transport.

Its main function is to search for, assist, and, if necessary, rescue survivors of aircraft accidents or forced landings, vessels in distress, and accidents at sea. It is also charged with co-ordinating the resources made available to the department by various government departments, voluntary organisations, and private aircraft and shipping companies for search-and-rescue purposes. The executive committee of Sasar, in conjunction with the relevant officials of the department, is responsible for formulating policy and procedures.

The Department of Transport, the South African National Defence Force, Telkom, Portnet, Samsa, CAA, ATNS, the South African Police Service, the Independent Communications Authority of South Africa, SAA and the Department of Provincial and Local Government are members of Sasar and contribute their services and/or facilities.

Voluntary organisations such as the 4x4 Rescue Club, the Mountain Club of South Africa, Hamnet and the National Sea Rescue Institute are also members of Sasar.

The Aeronautical Rescue Co-ordination Centre is an operational facility of Sasar that promotes the efficient organisation of search-and-rescue services and co-ordinates the conduct of aeronautical search-and-rescue operations. This plays a significant role in improving the safety of South African airspace.

Maritime safety

An estimated 7 000 vessels pass around South Africa's coastline yearly, of which many are laden tankers carrying in excess of 30 million tonnes of crude oil. South African weather conditions present regular challenges to vessels, often resulting in distress calls to the Cape Town-based Maritime Rescue Co-ordination Centre (MRCC).

The MRCC has been in operation since 2003. This has enabled South Africa to exercise its responsibilities to the international community by employing state-of-the-art search-and-rescue infrastructure and services.

Since 2003, the MRCC has received over 500 distress signals from vessels off the South African coastline, some as far south as Antarctica. Various laden, very large crude-oil carriers have been assisted to safety, their cargo safely transferred by means of ship-to-ship transfers and the affected vessels repaired or temporarily repaired to enable them to proceed to other ports for permanent repairs.

South Africa has a well-established Pollution Prevention Strategy, and is ready to respond in case of threat to the environment or to provide assistance to vessels at risk.

South Africa also acts in terms of the Indian Ocean MoU on Port State Control and has a similar agreement with the states of west Africa in the form of the Abuja MoU.

Acknowledgements

Airports Company South Africa

Beeld

BuaNews

Department of Transport

Estimates of National Expenditure 2006, published by National Treasury

National Household Travel Survey, 2003

National Ports Authority of South Africa

South African Rail Commuter Corporation

Spoornet Limited

Transnet Limited

Road Accident Fund

www.gov.za

www.ports.co.za

www.southafrica.info

www.spoornet.co.za

www.saa.co.za

www.transnet.co.za

Suggested reading

Burkett, D. *Jetlag: South African Airways in the Andrews Era*. Sandton: Penguin, 2001.

Byrom, J. *Fields of Air: Triumphs, Tragedies and Mysteries of Civil Aviation in Southern Africa*. Rivonia, Sandton: Ashanti, 1993.

Du Toit, A. *South Africa's Fighting Ships, Past and Present*. Rivonia, Sandton: Ashanti, 1992.

Harris, CJ and Ingpen, BD. *Mailships of the Union-Castle Line*. Cape Town: Fernwood, 1994.

Illsley, J. *In Southern Skies: A Pictorial History of Early Aviation in Southern Africa*. Cape Town: Jonathan Ball, 2003.

Infrastructure: A Foundation for Development. Development Report 1998. Midrand: Development Bank of Southern Africa, 1998.

Infrastructure Mandates for Change: 1994 – 1999. Pretoria: Human Sciences Research Council (HSRC), 2000.

Ingpen, BD. *South African Merchant Ships: An Illustrated Recent History of Coasters, Colliers, Containerships, Tugs and Other Vessels*. Cape Town: Balkema, 1979.

Khosa, M. ed. *Empowerment Through Service Delivery*. Pretoria: HSRC, 2000.

Moore, D. *Sunset of Steam: A Tribute in Colour to the Golden Years of Steam Locomotives in South Africa*. Johannesburg: Chris van Rensburg, 1990.

Nöthling, CJ and Becker, D. *Pride of the Nation: A Short History of the South African Air Force*. Pretoria: South African Air Force, 1995.

Robbins, D. *Blue Train*. Johannesburg: Penguin, 1993.

Schnettler, FA. *Century of Cars*. Cape Town: Tafelberg, 1997.

Stirling, WGM and House JA. *They Served Africa With Wings: 60 Years of Aviation in Central Africa*. Saanichton BC Canada: Bookmark Publishing, 2004.



↙ ● check-in counters 1-10
↘ ● check-in counters 11-25
→ ● check-in counters 26-75
→ ● domestic boarding gates
← ● international boarding gates
→ ● shops
↑ ● aircraft view

PORTER

lite