

BY THE WAY

Creating wealth through infrastructure

ISSUE 12



Crossover appeal

Whoa!

Check yourself before you wreck yourself

SONA

Transforming infrastructure



Letters

Blown away

Dear G4 Civils

Recently, on the N1 South near the N12 intersection, I had a blow-out, completely destroying the tyre. I managed to get to the shoulder of the road and parked. I was concerned about changing the tyre on the shoulder with trucks and other vehicles passing by.

I was considering my options – driving to the next off-ramp on the rim of my wheel or changing the tyre on the shoulder – when one of your trucks stopped in front of me. Four guys came over and offered to help. With their help we changed the tyre in less than three minutes and I managed to get on my way safely.

I would like to commend your staff and their helpful attitude – they were courteous and very good ambassadors for your company. Their names are Ephraim, Moses, Jabulani and James. They are part of the lane closure team on the N1 near the N12C.

Please pass on my gratitude.

– Rob Holmes, Technical Director TTM

Ed's note: G4 Civils is contracted to SANRAL.

Going with the flow

Dear sir

Thanks for advising on the wider acceptance of the e-tag. I have just returned from a road trip to Cape Town and the convenience of using the e-tag at toll gates north of Bloemfontein was simply a pleasure – certainly a step in the right direction. I do believe that SANRAL is missing a rare opportunity to promote the e-tag as a convenience purchase.

To date, SANRAL has appealed to road users to “do the right thing” and register for e-toll – this has had only limited success. I also doubt if threatening road users with legal action and raising the prospect of having to pay arrears will engender any greater degree of compliance.

But since the e-tag is now being accepted at a number of toll booms on major routes, this brings a very tangible convenience benefit to being registered for e-toll.

Hence my suggestion to SANRAL:

Actively promote the convenience and benefit of being registered for e-toll. Advertise and promote the e-tag not just as the right thing to do, but also as something that eliminates the drudgery of waiting in a queue on the highway!

Perhaps at a later stage, SANRAL could explore the potential of an e-tag loyalty programme, bringing benefits such as movie ticket discounts and cheap airline flights to loyal supporters. Look to the Discovery model to see how a grudge purchase was turned into an aspirational one.

All suggestions made in good faith.

– Dawid Bosman, via email

Talk to us

We love hearing road stories and comments. Send yours to pressoffice@nra.co.za and you might end up on our Letters page

In this issue

Pop in at the local

3

Cape Town may seem like an alien planet, but if you know where to go, you can find your way around like a local. Lucky for you, all you need is a smartphone



Off the beaten track

7

From reptiles to the Rain Queen, Limpopo is more than just the northernmost province of South Africa

Crossover appeal

12

Check out the Botlokwa makeover that's saving lives

Ice, ice baby

17

Ah, morning coffee... Bit hot for a steaming cuppa, though, isn't it? Worry not! Our recipe for the perfect iced brew will have you covered this summer. Also, “Drunken Grapes”

Planter's punch

21

Fresh from a flowerbed somewhere in Gauteng, we bring you a hand-picked bouquet of advice, anecdotes and nature-loving rambles. Don't miss our inaugural Greenfingers column

What you said

23

Does this paper make our back cover look fat? Readers tell us what they think of the new-look of **By The Way**

PLUS:

Last edition's crossword driving you crazy? Not to worry, you can find the solutions on Pg 20.

This month, we love...



LUSH cosmetics

If you're someone who enjoys – nay, cherishes – soaking in a bath, you need LUSH. The UK organic cosmetics producer is a treasure trove for tub fans. LUSH makes facial creams, skincare products and a staggering array of bubble bath cakes, shampoos and soap bars. The brand's signature item is the bath bomb – pop one of these orbs into your bath and after much fizzing and excitement, the steamy waters become a scented haven.

One of LUSH's most famous bath bombs, the naughtily named Sex Bomb, is a pink orb that releases gorgeous soap flower petals as it dissolves.

LUSH first landed in South Africa at the V&A Waterfront in Cape Town and is now at Cresta Shopping Centre in Johannesburg. As you wind your way into one of these branches, the flora and spice of its wares will come wafting into your nostrils before you ever enter the store. Inside, you'll be confronted with shelves that look like they belong in a pâtisserie. Everything looks edible (beware if you have little ones; the temptation to nibble might be too much for some).

LUSH makes all of its products from sustainably sourced ingredients – often produced by small farms in which it invests heavily – in what its directors call “the kitchen”. The ingredient list for most of the goodies reads like a recipe for some delicious confection (lots of berries and cocoa butter). And, at 100% vegetarian, 83% vegan, 60% unpreserved and 38% unpackaged, LUSH cosmetics is as much about being kind to the environment as it is about luxury. Win win.

Minister's message



Dipuo Peters

On 21 March our country celebrates Human Rights Day. One of the best known and greatest humanitarians of our time was Nelson Mandela.

And while we will always remember the sacrifices he made as he fought for a better South Africa for all, let us not forget those who fought beside him.

This year we are marking the centenary of the birth of one of our legends, the late Oliver Reginald Tambo. He was born on 27 October 1917, near Bizana, Pondoland, in the Eastern Cape.

In many colonial and social revolutions, the leaders of the people had to go into exile to guide the resistance, or were imprisoned or deported by the oppressive regime, but continued to inspire the people in their struggle for liberation.

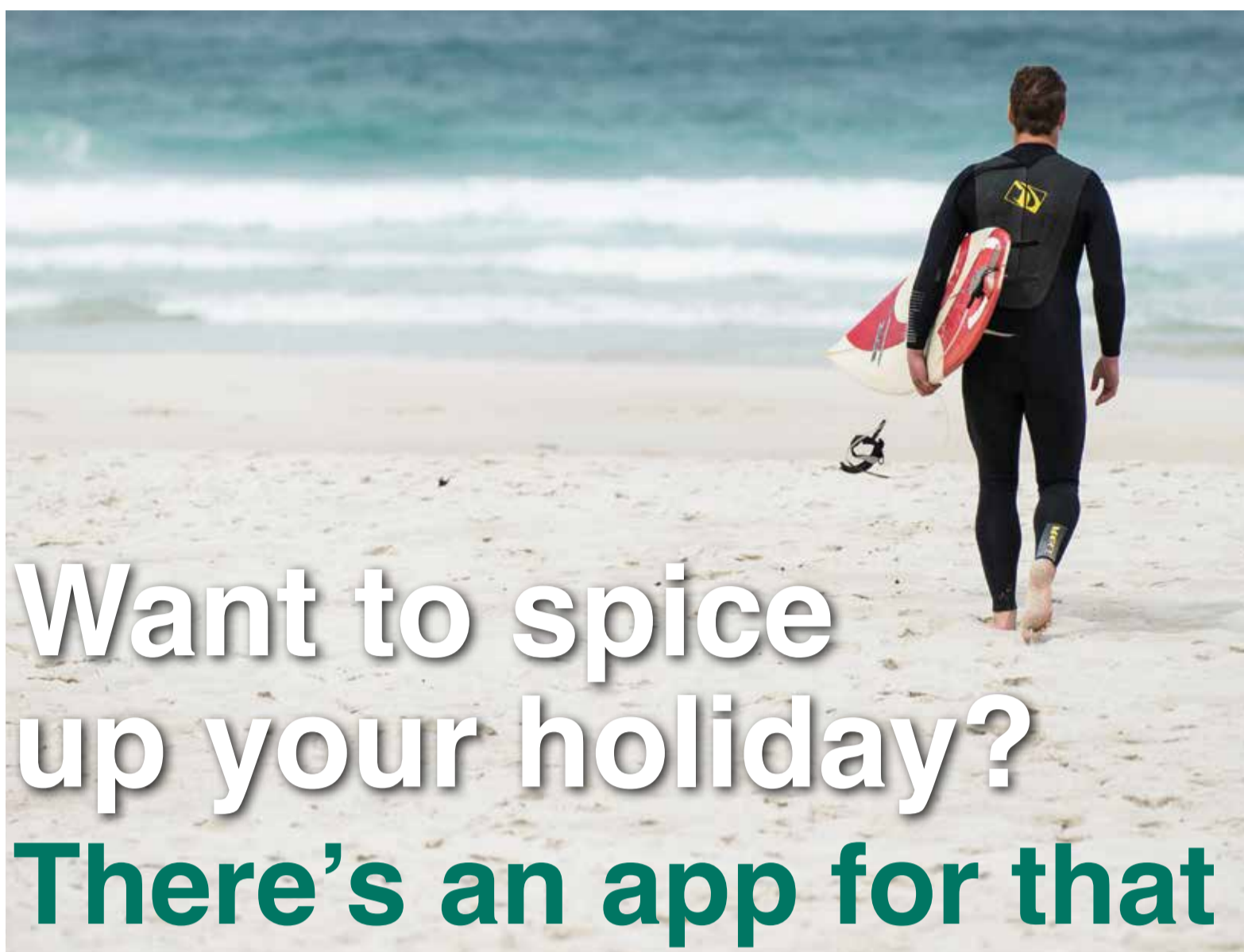
The revolution in South Africa is perhaps unique, in that the leadership and inspiration has been provided in a protracted struggle by a triumvirate – Oliver Tambo, President-General of the African National Congress, who had been in exile since 1960, and Nelson Mandela and Walter Sisulu, who had been in prison since 1962 and 1963 after short periods in the underground.

The ANC has a tradition of collective leadership and significant contributions have been made to the movement by many others – such as Chief Albert Luthuli, Moses Kotane, JB Marks and Dr Yusuf Dadoo – but the continuity of leadership provided by Tambo, Mandela and Sisulu has been crucial.

Oliver Tambo has borne the burden of guiding the resistance and securing international solidarity for a quarter century, but his political life is inseparable from that of his two closest colleagues.

Soon after the Sharpeville massacre of 21 March 1960, when the regime introduced the Unlawful Organisations Bill to outlaw the ANC and other organisations, Oliver Tambo escaped from South Africa, together with Dr Yusuf Dadoo, President of the South African Indian Congress and Ronald Segal.

Continued on Pg 10 >



Want to spice up your holiday? There's an app for that



Pictures: Patrick King

As the April break approaches, we look at how those travelling to Cape Town can use tech to get more out of their time off

Nick Cowen

In 1990 sci-fi hit film *Total Recall*, Arnold Schwarzenegger plays a quarry worker named Quaid in desperate need of a break. Since he can't afford a lavish trip abroad, Quaid visits a facility called *Total Recall*, which offers to implant memories of a fantastic holiday without him having to leave his chair. He'll have the experience without losing the luggage.

Before beginning the memory implant, the *Total Recall* sales rep pitches Quaid a curveball: "What's the same about every vacation you've taken?" he asks. "It's you! You're the same wherever you go."

With April Holidays coming up, there will be many South Africans heading to Cape Town to enjoy the last month of summer. Many will be going to familiar destinations, but what about those who want something with a little more flavour?

While technology in 2017 isn't so advanced it can give holidaymakers a break from themselves (sorry, you can't go to Cape Town as a secret agent), it certainly can offer a break from routine.

Technology has moved to meet the demands of those who want something a little off the beaten path. If you simply want to put your feet up in Camps Bay, go wild, but if you want a brand

new experience – something a little more adventurous than you're used to – there are myriad options available.

Top among these are the new Trips offered by Airbnb – which recently expanded to include the Mother City.

Alongside booking a place to stay in Cape Town with the Home function, holidaymakers can now tap up local knowledge using Places, a list of destinations, neighbourhoods and hidden gems that only the locals know about. On top of that, hosts can offer their customers Experiences, which are custom-made activities curated by locals, giving visitors access to activities and communities they probably wouldn't find in a travel guide.

For instance, budding oenophiles can give Super Tasters a try. This two-day wine and food tasting course is offered by two award-winning cookbook authors and it promises tasting and a mini cooking course to learn new techniques.

The more action-orientated may prefer the Jet Ski Eco-Safari Experience, allowing them to frolic in the waves then chill out at a yacht club afterwards.

If you're after hard-charged nightlife, the I Am Because You Are Experience takes punters from the townships to

Cape Town's best nightclubs, offering them a smorgasbord of different beats and musical experiences.

The list is near-endless; learn to surf, enjoy the variety of the local art scenes, learn about the architecture of the Mother City on a tour or solve a crime on a murder mystery Experience. Each Experience is detailed on the Airbnb app, with pricing and booking only requiring the touch of a screen.

Airbnb is easily the most convenient one-stop shop for activities, but it isn't the only game in town. If your wallet won't extend to Airbnb's Experiences, you can learn about Cape Town's rich history using VoiceMap, a GPS-linked walking tour guide you can download for free.

Hikes, tours and even jogging routes can be accessed through a simple download and technology also has the ability to put tourists in touch with likeminded communities. Creative Cape Town, for example, can put visitors into the same space as artists, designers and makers.

Holidays are generally viewed as downtime, a break from the rat race. But they're also about broadening your horizons. With modern technology, the heavy lifting has been done – all that holidaymakers need do now is choose.

Balancing the needs of communities and the environment



Mpati Makoa

Road construction and maintenance projects across the world inevitably impact the environment. SANRAL prides itself on its ability to strike a careful balance between the socio-economic benefits that a road or upgraded bridge will bring to a community and the need for sustainable environmental practices.

Management of the environment is at the core of decisions taken by SANRAL on every project – from conception and design to construction, delivery and ongoing maintenance.

The modern concept of caring for the environment goes way beyond looking after nature. It includes the long-term impact of the road on surrounding communities, the future of plant and animal species and issues relating to climate change.

The modern concept of caring for the environment goes way beyond looking after nature. It includes the long-term impact of the road on surrounding communities, the future of plant and animal species and issues relating to climate change.

Each SANRAL project is accompanied by a comprehensive environmental impact assessment. World-class experts from both SANRAL and independent companies assess the project, taking into account location, proximity to natural resources and the unique character of the region and communities who live close to the road.

One example is the N17 from Springs to Ermelo – of vital economic importance to Gauteng and Mpumalanga, as well as South Africa's neighbours in Swaziland. The planning of this road required the combined expertise of independent environmentalists, economists and experts in the fields of tourism, trade and commerce.

In the North West, the construction of a bridge on the N14 near Delareyville had implications for the Barberspan

bird sanctuary – an internationally recognised conservation area that is home to more than 365 different bird species. During the construction, special care was taken not to disturb a rare colony of cliff swallows, while a range of other measures were introduced

to mitigate the impact of the building activities on the sensitive ecosystem.

Then there's the N2 Wild Coast Toll Highway. This project has attracted attention from both environmental activists and community organisations. The original environmental assessment was referred back for more detailed studies, which resulted in a much-improved plan for the road. A survey conducted by the Human Sciences Research Council now shows that there is overwhelming public support for the project, which has the potential to unlock the tourism and agricultural potential of a region that has been neglected in the past.

During construction on the N2 between Grahamstown and the Fish River, SANRAL worked closely with a postgraduate student at Rhodes

University to study a population of the Suurburg cushion bush (*Oldenburgia grandis*). This research resulted in the preservation of a very important plant species.

When planning started on the new Polokwane Eastern Ring Road in Limpopo, heritage experts expressed concerns about its potential impact on the rich archaeological history of the region. When a few graves were discovered during construction, SANRAL halted its activities, brought in experts and worked with local communities to apply for the exhumation of the remains.

Global concerns about climate change – and local concerns about power shortages – are important factors when the energy-efficiency of transport networks is considered. Again, SANRAL is taking the lead in innovation. On a section of the busy N2 in KwaZulu-Natal, a lighting management system was installed that enables an operator to control the overhead lighting and adjust it according to the time of day and traffic volume.

This system will lead to energy savings of up to 40% and has the potential to be rolled out to other sections of the national road network.

These examples all show that SANRAL takes its stewardship of the environment very seriously. The South African public can be assured that the agency is committed to sound environmental principles and that its decisions are based on the latest global research and practices.

Mpati Mokoia is SANRAL's Environmental Manager

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 From education to social-economic development, TRAC is passionate about uplifting communities along the N4 Toll Road.
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Intersection

We take some time to find out what it is like to be engineer Thabiso Ngozwana, a Project Manager for SANRAL's Southern Region

What is the best part of what you do?

The most fulfilling part has to be my contribution to improving the socio-economic conditions of communities. You can often see measurable changes in people's lives – better houses being built, the presence of public transport where previously there was none, public facilities springing up and the acquisition of cars in the neighbourhood.

What's the worst?

The worst part of the job is being caught up in project disruptions, which are sometimes due to things that may have nothing to do with the project and are totally beyond my control.

Bridge or intersection?

I prefer bridges. Each one is unique and that's what makes it special. Bridges have character – that's why they're given names. Also, bridges generally have the greatest impact on society, in that they connect communities and provide safe crossing over natural and man-made obstacles.

Which structure in the world do you wish you had designed?

It has to be the Golden Gate Bridge in San Francisco. It's such an iconic structure. It was known as "the bridge that could not be built", because of complications like high winds and tides. Plus it's beautiful! It's one of the Seven Wonders of the World and, though it was built way back in the '30s, it remains a landmark to this day.

Any myths around engineering you'd like to bust?

That engineering is boring and complicated. Engineering concepts are based on the laws of nature and common sense, so it's not actually that difficult to understand. It involves building things that meet the everyday needs of people – like water, roads and shelter. Engineers



Sanral Project Manager Thabiso Ngozwana

Picture: Brett Eloff

"Engineering involves building things that meet the everyday needs of people – like water, roads and shelter. Engineers are certainly not boring and most of us have a wicked sense of humour."

are certainly not boring and most of us have a wicked sense of humour.

What made you decide to become a civil engineer?

I suppose it started with a childhood fascination with breaking things down and then remaking them. I used to marvel at all the big earth-moving machines that could literally move mountains and carve order out of chaos. I also began to appreciate the role of civil engineering in the development of society.

What's the biggest project you've worked on for SANRAL?

My biggest SANRAL project is the R61, section 8, from Mthatha to Ngqeleni, worth R550m. It involves the construction of a dual carriageway road and bridges. This project, which is in the OR Tambo District Municipality, straddles the King Sabata Dalindyebo and Nyandeni local municipalities (Mthatha being the main town).

So who is Thabiso Ngozwana when he's at home?

I'm a single parent of twin boys. I enjoy reading news, hiking and watching Formula 1, cricket and soccer. I settled in Port Elizabeth in 2013. I'm originally from the small Eastern Cape town of Matatiele, in the western foothills of the Drakensberg Mountains, next to the borders of KZN and Lesotho.

Where did you study?

I obtained a bachelor's and Master's degree in civil engineering from institutions in the US (South Dakota School of Mines) and Australia (University of New South Wales), respectively.

Do you travel a lot for work?

Well, the majority of my allocated projects are in the former Transkei, so I'm on the road for about one week out of every month.

Learn the Lingo

Talk like an engineer...

Road stud (*rəʊd stəd*) ~ Not a travelling breeding horse. Also commonly known as a "cat's eye" a "reflector" or a "delineator", a road stud is the coloured object (white, red or yellow) attached to a paved surface that

marks out the road's centreline and edges. The studs reflect vehicles' headlights when it's dark. Road studs are a safety measure for people travelling on the roads at night.

Shoulder (*ʃəʊldə:*) ~ Not a body part. The shoulder is an area of the road beyond the yellow line. It can sometimes be made of gravel and is used for the purpose of emergency stopping.

Footing (*ˈfʊtɪŋ*) ~ Not something you can lose in high heels. Footing is generally a flat, shallow foundation for built structures. It serves a similar function to actual feet, providing support and balance. And whether we're talking about dancing in stilettos or erecting a

structure, a firm footing is always required in slippery conditions.

Bedding (*ˈbedɪŋ*) ~ Nothing to do with thread-count. Bedding is a specially prepared surface of natural gravel and/or processed material, which is used as a platform for laying pipes and structural components. Typical examples of bedding material are stone, gravel and sand. A good, firm bed is necessary for a decent rest.

Apron (*ˈeɪprən*) ~ Kiss the Cook? Not quite. An apron is a smooth surface, generally made of concrete, between a culvert and the stream channel. It's meant to reduce erosion and improve capacity. An apron slab around a house actually

serves the same purpose – to protect. So not that different from your dad's "World's Greatest Chef" apron, really.

Slab (*ˈslæb*) ~ Just like chocolate, a slab here is a flat, broad piece of structure. Unlike chocolate, it's usually made of concrete or wood and used as a floor or a roof.

Tar road (*ˈtɑː rəʊd*) ~ There is no such thing as a "tar road". No, really. The black sticky stuff used in road construction is actually bitumen, a byproduct of oil (tar is a byproduct of coal). Tar was discontinued for environmental and safety reasons a long time ago – it's carcinogenic and it causes warts. Eeeuw.



We invite you to explore!



The N3 Gateway Tourism Association route stretches from Pretoria in the North to Valley of a Thousand Hills in the South, traversing four provinces, namely KwaZulu-Natal, Free State, Mpumalanga and Gauteng. The region incorporates cross-border tourism with Lesotho through Phuthaditjhaba, Caledonspoort and Sani Pass and includes the Battlefields Route up to Newcastle.

The N3 Gateway has much to offer from mountain biking; fishing; zip lining and hiking to heritage tourism; arts and crafts; secluded retreats; health spas, wedding and team building venues.

We invite you to explore our website www.n3gateway.com and discover the N3 Gateway region. You can find over 150 itinerary ideas on the N3Gateway website to suit your self-drive or guided holiday needs. Should you be looking for a 4x4 holiday, horse riding excursion or a multi regional tour; the N3Gateway website has it all!



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From reptiles to Rain Queen

Limpopo's got everything. Breathe, marvel, take it all in...

It's in the north, at the nether end of the N1, which traverses the length of South Africa. Limpopo is for too many just somewhere you travel through to get to Zimbabwe. But you really should visit.

You'll have to linger, because it's big. Finding highlights is easy: warm baths at Bela Bela, just north of Pretoria; the Marakele National Park in the west; the Nylsvley Nature Reserve along the N1; Blyde River Canyon to the east; the ancient Mapungubwe.

These are the touristy places. But there's more. And you can look around using excellent roads.

Most places can be reached from the N1. But there's also the R71 – upgraded to carry the heavy traffic going to Morija City – the ongoing work to improve the 1 628km of provincial road (which SANRAL took over two years ago) and, of course, the work that has begun on Moloto Road, which runs from Pretoria to Marble Hall.

The province is named after the great river that runs between it, Botswana and Zimbabwe. Limpopo is exceptionally rich in minerals (platinum, iron, chromium, diamonds and so much more). It's cattle country, but increasingly, South Africans are realising its magnificent travel potential. There is something for everybody – from mountains to ancient cultures.

Begin in the Kruger National Park, which, despite its 1.5 million visitors a year, will often leave you feeling alone while watching game, along a road network spanning some 2 500km.

Just east of Pafuri, you'll find the remarkable Thulamela, a stonewalled city on a plateau in the Soutpansberg. This sophisticated kingdom flourished between 1200AD and 1600AD. It housed goldsmiths and iron workers and bartered with Indian and Chinese traders.

This technologically refined past underpins a proud southern African cultural heritage. You can stay overnight at the Pafuri Wilderness Camp, a private lodge right in the ancestral lands of the Makuleke people, who are the custodians of this beautiful area.

For birders, it's a great place to spot the crowned eagle, wattle-eyed flycatcher, Bohm's spinetail and the elusive Pel's fishing owl.

If you're a history buff, there's Crooks' Corner, where South Africa, Zimbabwe and Mozambique meet – and criminals could easily hop the border.

Far to the south, in Hoedspruit, you'll find the shield-nose snake, which occurs nowhere else in the world. And if herpetology is your thing, stop in at the Khamai Reptile Centre – a reptile haven that's all about conservation, research and education, enlightening the public about the importance of these often-misunderstood animals.

Take a short trip to the northwest and visit Modjadji Cycad Reserve, near Tzaneen. It houses the largest concentration of single cycad species in the world and they are some of the oldest and largest.

It's the realm of the legendary Rain Queen; a unique natural forest, unspoilt and much like it was in prehistoric times. Take a guided tour of the village of Modjadji, the home of the queen who claimed to have special rainmaking powers.

To round it all off, go east across the N1 to the UNESCO Waterberg Biosphere Reserve: the only savannah biosphere reserve in southern Africa.

There is an abundance of excellent accommodation, so you can rest and recover from your jam-packed and informative trip.



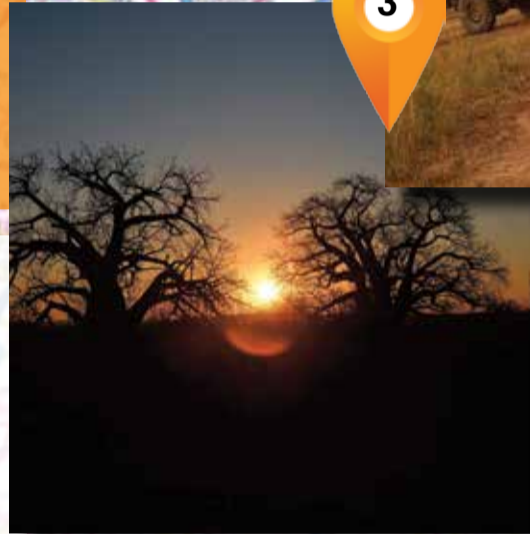
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2



3



4



5

Limpopo Top 5

1. Thulamela Stone-Walled City
2. Pafuri Wilderness Camp
3. Khamai Reptile Centre
4. Modjadji Cycad Forest
5. UNESCO Waterberg Biosphere Reserve



Shelly Beach safer with barrier method

The Shelly Beach/Izotsha off-ramp on the R61 has been the scene of several collisions, when motorists have made illegal U-turns to avoid paying tolls.

Residents of KwaZulu-Natal South Coast got a road safety intervention recently, with the erection of a crash barrier at the Shelly Beach/Izotsha off-ramp on the R61, where several accidents have occurred when motorists made illegal U-turns to avoid paying toll fees.

SANRAL, which has a mandate to finance, improve, manage and maintain the country's national road network, erected temporary barriers to ensure that during the 2016 Christmas holiday period, there would be some measure to prevent or limit the illegal crossing.

Eastern Region Project Manager Salome Naicker said a permanent wire

rope barrier would be installed in the first half of this year, following the resurfacing of the road.

Democratic Alliance Ward 3 councillor Paul Brauteseth said it was heartwarming that SANRAL had kept its word to erect a temporary barrier before the busy holiday season.

On behalf of the local community, the Ramsgate Community Police Forum thanked the agency for erecting the barrier.

"You have literally saved lives this holiday season," it said.

Local residents Avril Simpkins, Bryan Colin Henderson-Everill, Burt Kamine and Gill Carlow expressed their appreciation

for the temporary barrier in letters they wrote to Brauteseth.

Tracy Hayden said: "I have been a resident of the South Coast for the past nine years and have witnessed and heard of the most horrific accidents on this section of freeway.

"The main culprits in these accidents have been people making illegal U-turns to avoid paying the toll fee. Thank you to SANRAL and local councillors for helping to save precious lives."

Naicker said the safety and wellbeing of road users and the communities in which the roads agency operates are absolutely paramount and motorists are requested to obey the laws on our roads at all times.

"I have been a resident of the South Coast for the past nine years and have witnessed and heard of the most horrific accidents on this section of freeway."

R71 model handover seals the relationship

The refurbished R71 to Moria was officially opened before the busy Easter period in March 2015 by Deputy Minister of Transport Sindisiwe Chikunga. The opening was welcomed by Zion Christian Church congregants, who are now finding it easier and safer to make a turn to the church.

On 24 November, SANRAL Northern Region Manager Ismail Essa handed over the R71 model to bishop Barnabas Legganyane at the church headquarters, Moria. He was accompanied by a SANRAL Northern Region delegation including Gail Bester and Tiyani Rikhotso.

The thousands of visitors to Moria during the Easter weekend every year are now enjoying the benefits of a refurbished R71 interchange just south of Polokwane. This is one of the busiest roads in Africa during Easter and the new road section and improved access for pilgrims to Zion City will contribute greatly to the safety of the journey.

The delegation held a short meeting with the bishop before presenting him with the model. "This is a token of appreciation from SANRAL for the support we received when this road was constructed," Essa said at the handover.



Ismail Essa (far right) handed over the R71 model to Bishop Barnabas Legganyane (centre) at the church headquarters, Moria.

The fun in fundraising

Judging by the team spirit and the amount of money collected for charity, the 12th annual Imbizo hosted by SANRAL's Western Region was a huge success.

A record amount of R114 500 was raised and donated by the participating

teams – consultants and contractors to SANRAL – at the fun day held near Paarl.

With this money, SANRAL was able to buy 806 reflective school bags for underprivileged schools.

The theme of the Imbizo was Water Is Life.

The overall competition was won by the Aurecon team, who dressed up as the Water SA Police Department (WSAPD). Mott Macdonald won the cooking competition. Aurecon also took home 1st prize in the Theme/Marketing competition and the 1st prize for Best

Team Spirit went to Tolcon Group – Huguenot Tunnel.

AECOM won the tug of war, Aurecon the baboon race, AECOM the tortoise race and the team of Element Consulting Engineers won the three-legged race.

It was great fun for a good cause.



The 12th annual Imbizo hosted by SANRAL Western Region was a roaring success.

Protecting our plants



Buyelwa Phiwayo hands Ntombezintle Mthethwa some of the indigenous plants at SANRAL's nursery, which was created for rare, endangered and endemic species and species of conservation value. Search-and-rescue missions will take place before all phases of the project, including the initial construction of haul roads to the Msikaba and Mtentu river bridge sites.



▲ SANRAL has commenced search-and-rescue missions near Khanyayo Village, outside Flagstaff, for all species of conservation value near bridge construction sites, as part of its environmental management plan for the N2 Wild Coast Toll Road (N2WCTR). Pictured here are Ntombezintle Mthethwa, Rupert Schmidt (a site agent for Aveng Grinaker-LTA) and Buyelwa Phiwayo, holding planters of *Aristea ecklonii*, indigenous evergreens, which are one of the plant species being relocated to a nursery. The plants are being relocated to suitable nurseries, with the aim to re-establish them in an existing conservation area. It will also assist with the rehabilitation of disturbed areas after construction of the N2WCTR.



Moloto Road gets SONA spotlight

State owned enterprises like SANRAL are not only key drivers of growth, but continue to be instrumental in economic transformation

In his 2017 state of the nation address (Sona) on 9 February, President Jacob Zuma emphasised the importance of infrastructure for the growth of our

economy, singling out SANRAL for its R4.5bn upgrade of the Moloto Road linking Mpumalanga and Limpopo with economic heartland Gauteng. This

development will also contribute to the safety of the people whose lives have been at risk on this road in the past.

President Zuma linked the Moloto Road

development to wider plans to construct a Moloto Rail Development Corridor, noting that a cooperation agreement on this initiative had been signed with China last year.

With regard to the role of the state in socio-economic transformation, Zuma said that it was time to move “beyond words to practical programmes”.

State-owned enterprises will play an increasingly important role in the country’s economic transformation, through their procurement processes and ability to direct spending towards emerging businesses.

Here’s how:

- Using the state’s buying power, of more than R500bn a year, to acquire goods and services
- Adding to this the power of the state’s R900bn infrastructure budget
- Following through on the recently published regulations that make it compulsory for big contractors to subcontract 30% of their business to black-owned enterprises
- Using these levers to empower small enterprises, rural and township businesses and promoting local industrial development

President Zuma said that radical transformation requires fundamental changes in the structure of our economy and its current patterns of ownership, management and control, in favour of all South Africans – especially the poor and the majority of black people, who are still economically disempowered.

“There can be no sustainability in any economy if the majority is excluded,” he said.

The president added that in his discussions with the business community, they accepted the urgent need for transformation.

Continued from Pg3

Meanwhile, in May 1961, a national strike against the establishment of a white racist Republic – led by Nelson Mandela from the underground – was suppressed by a massive show of military force.

Tambo then organised a secret conference of leaders of the ANC and its allies in Bechuanaland and it decided that armed struggle had become unavoidable. The *Umkhonto we Sizwe* (Spear of the Nation), a multi-racial military wing, was founded under the leadership of Nelson Mandela and Tambo had to undertake the additional task of arranging military training for its cadres.

The Pretoria regime responded with mass arrests of all militants – who were well-known and had little experience in clandestine activity. Through brutal torture and savage sentences under Draconian laws, it was able to shatter the underground structures of the movement.

Nelson Mandela was captured in August 1962, and Walter Sisulu in July 1963, and both were sentenced to life imprisonment. Chief Luthuli was confined to the Groutville reserve and died in a mysterious accident in 1967.

It now fell on Oliver Tambo not only to promote international action but to ensure the restoration of the underground structures in South Africa and the revival of the struggle, both nonviolent and violent. It is largely due to the respect enjoyed by him, his



Picture: The Oliver Tambo foundation

leadership and his tireless efforts that the unity of the ANC and the liberation movement as whole was sustained and strengthened despite severe reverses.

By the mid-’70s, the underground structures had been re-established and secured. Mass mobilisation against apartheid reached unprecedented levels, while armed struggle developed rapidly with thousands of young volunteers. Tens of thousands of people began openly to

defy the law and virtually unbanned the ANC.

President Tambo returned to South Africa in 1990 and, after suffering a stroke, relinquished the presidency in 1991. Thereafter, the reins were handed over to his comrade, Nelson Mandela, who succeeded him as head of the ANC.

We celebrate the legacy of OR Tambo and honour him for what he was and what he continues to be for all South

Africans. With this quote, we pay tribute to a great patriot and leader:

“It is our responsibility to break down barriers of division and create a country where there will be neither ‘whites’ nor ‘blacks’; just South Africans – free and united in diversity.”

Dipuo Peters, Minister of Transport

Books

for the long road

Last year was annus horribilis. Our president failed to stay out of the headlines for all the wrong reasons, Donald Trump was elected, politics in Europe swung right, the Middle East continued to be a frightening place, the world economy remains stalled, we faced a credit downgrade and an uptick in social unrest and unemployment.

Time for an escape. What better reading than psycho-thrillers to transport you to another world? An interesting, fantasy space, where there's usually an explanation for the seemingly inexplicable.

But first, given that we live in a world where "fake news" has become part of the news and good old-fashioned fact-checking has fallen by the wayside, here is a book to chew on...

35 years since marijuana laws stopped being enforced in California, the number of smokers has doubled every year. Levitin explains in a few lines that if it is assumed there was one marijuana smoker 35 years ago and that figure doubled every year, simple arithmetic shows that there were now 17 billion smokers in California – obviously complete nonsense, as there are only just more than seven billion people in the whole world.

The examples and arguments get a bit more complicated, but the point is that too much of the information we consume every day is not factual.

Now for some easier reads.



AND THEN SHE WAS GONE

Christopher Greyson

This latest arrival in the Jack Stratton series takes us back to the beginning, when our intrepid detective was still a teenager about to enter the army. He is a novice, but daring and intense in his pursuit of all leads to catch the guilty.

His first case is the disappearance of Stacy Grayson, a woman with her whole life ahead of her – new house, new job and blissfully expecting her first baby. One summer night, her car gives up and she walks home from work. But she never reaches home. Jack must solve the puzzle in his intense and, at times, belaboured way.



THE GIRL WHO LIED

Sue Fortin

The one girl has a secret (kept for over a decade!); the other wants her former friend to pay for the lies and the tragedy that struck them apart.

Romance is heavily woven in with the suspense. The novel is about family dynamics, the conflict of a mother who shelters her troubled daughter; it questions whether adults have to pay for their teenage transgressions. Is being a teen mother still an issue in today's world?

We've seen better writing from this author (in *Sister Sister*), but the intrigues in this tale mostly hide occasional shallowness of writing.

The corpse of a beautiful girl (why are the less attractive never murdered?) is found at dawn. And she is not the killer's first victim. He has struck before and Winnett is her tenacious self in finding him. But she has a problem – she has to hide a secret of her own while searching for the truth.

A maze of technological data is mixed in with Winnett's search and makes for a truly nailbiting tale.

And next, we take a look at the killer we have all met – sugar.

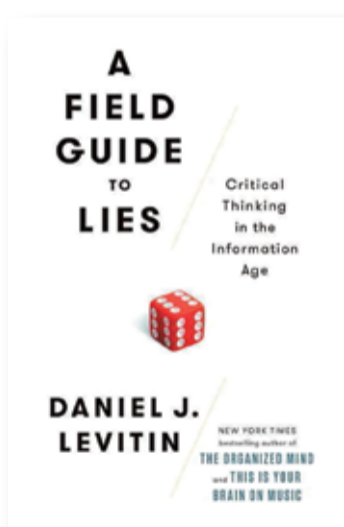


THE CASE AGAINST SUGAR

Gary Taubes

Yes sugar! We have all been warned. We have variously taken note or just ignored the news, but Taubes now gives us a revelatory read, which will change our approach to what we put into our bodies. You might not be converted or ready yet to buy into Taubes's gospel, but he sure gets you into the starting blocks.

"Sugar – both sucrose and high-fructose corn syrup – is the principal cause of chronic diseases that are most likely to kill us, or at least accelerate our demise in the 21st century," he writes. A third of all adults are obese; two-thirds overweight and almost one in seven is diabetic – yet the prime suspect has, until the last decade, been treated as little worse than the subject of harmless pleasure.



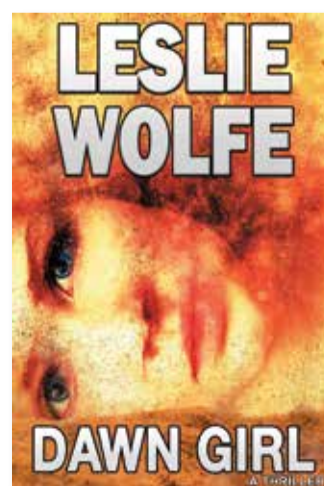
A FIELD GUIDE TO LIES

Daniel Levitin

A 2016 bestseller, this one sets out to make sense of a complex world. Levitin's writing is a wonderful antidote to a lot of what passes for news.

The opening line in the introduction sums it up nicely: "... how to spot problems with the facts you encounter, problems that may lead you to draw the wrong conclusions". One example summarises the basics of what the book is about.

It quotes a report that claims that in the



DAWN GIRL

Leslie Wolfe

Here we meet a serial killer who must be defeated by FBI Special Agent Tess Winnett.



CROSSOVER APPEAL

A pedestrian bridge that SANRAL has built in Botlokwa is literally saving lives

Georgina Guedes

Six years ago, Leshaba Matlade's brother was killed in an accident on the N1 highway, which cuts through the middle of the small town of Botlokwa in Limpopo. His was not the only road fatality. "Every weekend there was an accident and people were killed," says Leshaba.

Botlokwa lies on the N1 highway between Polokwane and Beitbridge. The town is divided by the roaring highway, so that people live on one side but do their shopping or attend school on the other. In recent years, the community has suffered more and more road fatalities. Paying a simple visit to a friend's house could be a life-threatening exercise.

The elders of the community approached the South African National Roads Agency (SANRAL) with a request to reroute the highway so that it no longer bisected Botlokwa. SANRAL heard the community's pleas. After some discussion, it was decided that rather than rerouting the highway, the roads agency would sink the road and fence it off, then build a street-level bridge for the townspeople. This way, the community would not be inconvenienced travelling from one side of town to another, but their safety would be secured because the highway would be inaccessible.

Agose Petrus
Moepeng (OSH
rep) WHBO

Bertie Brits, of consulting engineers SMEC South Africa, said: "A few designs were communicated between SANRAL and the community to suit their needs." "They wanted a level crossing, so that the bridge is on the natural ground level and the N1 has been dropped by 6.5m. The bridge has two 3m-wide walkways on either side of the traffic flow and there are two additional bridges at either end of the town – but those go above street level," he said.

Once the plans were shown to the community, they were satisfied. And in July 2014, the building of the road commenced. Wherever possible, SANRAL used contractors from the town and employed locals for unskilled positions like road monitors to safely direct the flow of pedestrians during construction.

"In total, we sunk 1.4km of the highway, with an average of 180 people working on the project at any one time," said Brits. "We've only used local subcontractors and labour."

Throughout the process, the national roads agency has engaged with the community and its leaders to ensure that everyone is satisfied with the final result and with how it was achieved.

"We have monthly meetings between SANRAL, WBHO, who are the contractors, and ourselves. And the week before these meetings, we meet with the Community Liaison Committee to get their input and feedback," says Brits.

William Mahobja, the site agent for WBHO, says that the skills transfer is a vitally important part of the project. "You need to impart skills so that when you leave, you leave on a high note. It's important that the people have benefited on an individual level, because there wouldn't have been a project without them."

For the duration of the construction, the highway was rerouted along another road through Botlokwa. But even so, from the day that construction started, no further road fatalities have been recorded in the town.

The community has expressed its thanks to SANRAL and people who use the bridge report feeling safer and happier in their home town.

"Years ago, this road was killing our people," says Donald Solly Mohale, the community liaison officer for the project.

"Once, there were five deaths and six accidents in a week. We asked SANRAL to move the road and they offered us the bridge, which we accepted with both hands. Since SANRAL came on-site, we have never had an accident. The community is happy to have the bridge and to have the agency by our side. We are happy now that we are safe."

Today, the bridge is a hefty structure, spanning the newly surfaced highway that flows beneath it. The community can continue their daily migration from one side of the town to the other at street level, without fearing for their lives. structure has changed their lives

"You need to impart skills so that when you leave, you leave on a high note. It's important that the people have benefited on an individual level, because there wouldn't have been a project without them."

Here's what the community had to say about the pedestrian bridge



Shokira Moshaba, who is 22 years old, says: "We are happy because now it is safe here. We don't have to worry about our children anymore."



David Rapholo, 45, is a marshal and says: "This is a good thing for the whole community. There have been no accidents since the project started."



MW Pheeha, a 91-year-old retired school teacher, says: "We are exceedingly, extremely happy. Many lives have been lost here, but now SANRAL has made a wonderful road. We are one people, whether we are on the residential or the business side."

Pictures: Lebogang Thlako

World's most famous PEDESTRIAN BRIDGES

While the Botlokwa Bridge is an impressive feat of engineering, there are some other pedestrian bridges around the world that'll sweep you off your feet.



Henderson Wave Bridge, Southern Cordillera, Singapore: This bridge's distinctive wavy structure, which stands 36m above the road, is made of steel and wood.

The Rolling Bridge, London, UK: This steel footbridge curls up like a caterpillar to allow boat traffic to cross the canal beneath.



The Double Helix Bridge, Singapore: This bridge's design was inspired by the structure of DNA and has a lighting system specifically designed to emphasise its curves and twists.



Moses Bridge, Halsteren, Netherlands: This "invisible" bridge is built beneath the waterline so that pedestrians appear to be walking on water.



Webb Bridge, Melbourne, Australia: Crossing the Yarra River, Webb Bridge resembles the fishing baskets and traps used by Australia's native people. It was made from materials recycled from the previous bridge that stood here.



Arganzuela Footbridge, Madrid, Spain: This bridge looks like a giant spiralling ribbon, allowing pedestrians to catch glimpses of the river and park below.



BP Pedestrian Bridge, Chicago, US: This serpentine bridge connects Millennium Park and Daley Bicentennial Plaza. It also acts as an acoustic barrier against the traffic noise from Columbus Drive.



Puerta de la Mujer, Buenos Aires, Argentina: The bridge has two fixed sections and a movable one in the middle that rotates around a pylon to resemble a couple dancing the tango.



Hovenring, Eindhoven, Netherlands: This is a suspended roundabout, 72m in diameter, 70m above the ground, for pedestrians and cyclists.



London Millennium Footbridge, London, UK: Known as the Millennium Bridge, this is a steel suspension bridge to carry pedestrians over the River Thames.

Source: landarchs.com

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WHOA!

Put that phone down, buddy

Holidays are the best time of the year for most of us. What's not to love about spending time with your family or going away with friends? But unfortunately for many, it ends up being the worst time of their lives. Widely celebrated holiday periods are times marked by horrific crashes. Countless people have lost loved ones or been maimed in traffic incidents that could've been avoided if the mood of the driver hadn't been quite so celebratory.

Texting, checking social media and being under the influence while driving have caused far too many needless deaths on our country's roads. We need to change how seriously we take these negligent behaviours.

Many of us have faced a moment we recognise as a scrape with death while driving. These narrow escapes should be teachable moments, but oh, how often we forget.

Even though there's a lot of messaging to caution people on the dangers before they have one of these moments, the response – or lack thereof – is a major course for concern.

Recognising the need to wake road users up in this regard, the South African National Roads Agency Ltd launched a fresh campaign at the end of last year to promote road safety. One that talks to that shock of fear many of us have had while driving.

The campaign, launched nationally throughout the 2016 festive season, is called WHOA! As in "Whoa! Call a cab." Whoa means "stop"; "slow down". It is

understood by everyone – young and old, passengers, drivers and pedestrians – and it transcends language barriers.

The purpose of the new campaign was to promote safe road practices and behaviour amongst South Africans during the festive season. It reinforced the key message that responsible road use by all motorists, passengers and pedestrians will reduce road "accidents" and save lives.

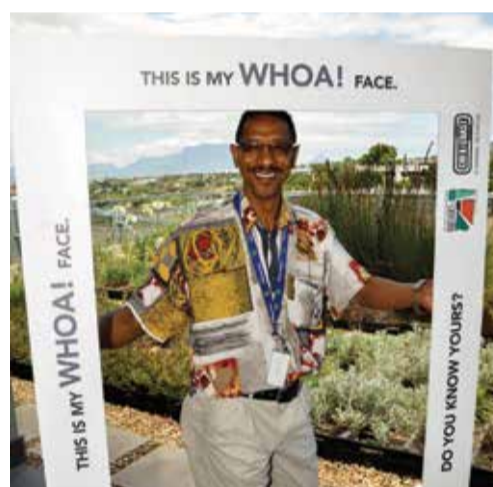
WHOA! was intended to encourage people to take personal responsibility for their safety and that of other road users; to know their limits and to stop before engaging in risky behaviour.

Through messages like: "Whoa, don't drink and drive," people were urged to use alternative transport if they knew they would be drinking heavily, or if they found themselves over the limit.

WHOA! was launched with a series of TV and radio commercials across various stations, as well as print adverts, billboards, wall murals and social media interventions. Activations were held at venues such as pubs and shisanyamas, where messaging was directly relevant to patrons.

The campaign ran concurrently with another SANRAL road safety awareness initiative, CHEKiCOAST. The idea was to extend the reach and impact of the ongoing campaign. The two initiatives are part of continuing efforts by SANRAL to combat road fatalities.

WHOA! will be carried through to other key holidays, when road safety communication is essential.



A word from the experts

Car crash injuries can be minor (cuts, scrapes, burns), or they can be life-threatening and include hemorrhaging and pulverised bones. It is important to recognise the brave and tireless efforts of South Africa's EMTs along our country's highways to save lives and be there when it counts. Last year, it was ER24. This time, we chatted to Gardmed about what happens on the road and what to do in an emergency.

What injuries do you see the most in collisions?

Motor vehicle injuries vary significantly depending on the vehicles involved and the speed and position of the patients upon impact. In any high-impact collision, emergency personnel will suspect head and spinal injuries due to the extreme sensitivity of the human spinal column and the functions it carries out. Other injuries may include fractures (broken bones), soft-tissue

injuries and internal injuries/bleeding – depending on the mechanism of impact.

What's the most useful piece of kit to have before the paramedics respond?

Any basic First Aid kit can save lives. All kits should have different types and sizes of bandaging and splints; medical gloves and CPR mouthpieces. There's a pretty useful list we send out if you email us at training@gardmed.co.za.

What do you do if you have no formal first-aid training?

The most important thing would be to remain calm and focused. Do not move the injured patient from a vehicle wreck unless that person is in immediate danger. Call an ambulance. If you see any active bleeding and you have a First Aid kit, protect yourself and the injured patient by wearing your gloves and stanch the bleeding by applying direct pressure to the wound with bandages.

While you are helping the injured

patient, remain calm and continuously speak to them. Ask your patient questions such as their name and age. Do they have any allergies? Are they on any medication? When last have they eaten or had something to drink? The answers will provide vital information that the medics will need when they arrive.

What do paramedics need to know before they treat you?

All medics need to ask the patient for permission to treat them. Once the injured patient has agreed to be treated, the paramedics will ask them various questions such as the ones mentioned above while treating them.



Sipho sells safety

TRAC's mascot for kids is giving beloved retiree Daantjie Kat a run for his money

October ended and November started with a bang for TRAC's CSI and PR teams, when the TRAC Road Safety School Project was launched.

This was the second such project last year – the first was held just before the Easter weekend. As Easter and the festive season are traditionally the busiest periods on the N4 Toll Route, TRAC uses the children's excitement for the upcoming holidays as an opportunity

to educate them about the basics of road safety. The aim is to have them pass on the importance of road safety to the adults in their lives.

The project was presented to more than 2000 learners, aged between five and nine. As always, the campaign, which was originally launched in 2014, was led by TRAC's official, life-sized mascot, Sipho, who has become a celebrity in his own right.

Nine schools between Komatipoort and Bronkhorstspuit were visited – three mainstream institutions, six rural schools and one special-needs facility. Kwetterness Nursery School, Kaapmuiden Primary, Little Angel, Machado Primary, Dumezizweni Primary



TRAC staff members Precious Moshupya and Dennis Mkabela, with Sibusiso Sibiya acting as Sipho

School, Elusindisweni Primary School, Curro Bakenveld, Tshepong Centre for the Disabled and Mshuluzane Primary School all got a visit from Sipho.

The presentation was done by TRAC staffers Precious Moshupya (Helpdesk) and Dennis Mkabela (Nkomazi Plaza), with Sibusiso Sibiya (Helpdesk) acting as Sipho. The "cast" had an absolute blast throughout the four-day campaign, revelling in their interaction with the kids.

November's campaign was modified somewhat to make it more interactive and leave a lasting impression on the learners. The learners took part in a question-and-answer session, where a huge, child-friendly wall map was used to demonstrate what they had learnt. TRAC



The TRAC Road Safety School Project was presented to more than 2000 learners aged between five and nine. As always, the campaign, which was originally launched in 2014, was led by TRAC's official life-sized mascot, Sipho, who has become a celebrity.

gave road safety posters to every school it visited, so that the lessons learnt during the visit would remain in the minds of the learners.

"The idea behind the initiative is to establish a culture of road-safety consciousness among our kids and to reach adults through the children's eagerness to learn and share their knowledge," CSI manager Adri Fourie said.

PR manager Solange Soares Nicholson said: "Seeing the kids' enthusiasm is mindblowing. They are so enthusiastic to learn and so thirsty for knowledge. Their reaction to Sipho gave me goosebumps. There's no doubt they see him as a road safety icon, from whom they are always willing to learn."



Car Seats for Kids wins in the UK

Bakwena N1N4 Toll Concessionaire, in a joint campaign with Wheel Well, a nonprofit organisation that aims to reduce child fatalities caused by car crashes, has won a prestigious award at the Prince Michael International Road Safety Awards.

The Prince Michael International Road Safety Awards are presented to organisations around the world in recognition of their outstanding contribution to improving road safety.

Peggie Mars, founder of the Wheel Well, and Charmaine van Wyk, public relations manager of Bakwena Platinum Corridor Concessionaire, received the award at the annual awards luncheon ceremony at The Savoy in London, on 13 December 2016.

For nearly 30 years, Prince Michael of Kent has played a leading role in supporting improved road safety around the world. The prince established his awards in 1987, first in the UK. Now international, the

Prince Michael International Road Safety Awards recognise achievements and innovation in road safety worldwide.

Each year, the most outstanding examples of road safety initiatives are given public recognition and the winners are invited to a gala presentation in London, where the prince announces his

"The award will do wonders for the efforts of Wheel Well to raise awareness for child road safety."

Premier Award of that year.

Bakwena's Van Wyk said: "We are tremendously proud. The judges assessed the Car Seats for Kids programme to be a significant contributor to child safety and one that should be replicated elsewhere. This award is a rare privilege for a South African road safety initiative."

According to the most recent Medical Research Council study, released in 2013, road accidents cause about one third of non-natural deaths among under-fives in

South Africa.

"The award will do wonders for the efforts of Wheel Well to raise awareness for child road safety," said Mars.

Wheel Well is the only nonprofit organisation to focus on road safety for children in South Africa.

Car seats are collected by way

of public donation. As the history of each car seat is unknown, Mars explained that all seats are completely dismantled and each component washed thoroughly with a biodegradable, non-allergenic disinfectant. The seats are simultaneously safety-checked for defects or damage that affects their functionality and correctly re-assembled and re-upholstered where necessary. Seats that do not meet the minimum standard are rejected, stripped of components that could still be used and

the unusable parts recycled.

"The Car Seats for Kids campaign encourages parents to donate their used car seats to Wheel Well, which then restores them and verifies that they still meet safety standards. Thereafter, they are provided to less fortunate families for a nominal donation. And because the campaign will not let money stand in the way of a child's safety, there is no prescribed donation," Van Wyk said.



Founder of Wheel Well Peggie Mars, Prince Michael of Kent and Charmaine van Wyk of Bakwena

Bakwena partners with Imperial for route patrol

Motorists planning to travel along the N1N4 toll road during holiday periods can do so in confidence, Bakwena N1N4 toll road provides additional route patrol vehicles along the N1N4 route during Christmas holidays. The additional vehicles have assisted motorists and traffic authorities with patrol and emergencies along the route.

Bakwena once again joined forces with Imperial Road Safety and Imperial's car rental division, Europcar, to ensure additional highway patrol vehicles were patrolling the N1N4 routes this past festive season.

Bakwena spokesperson Charmaine van Wyk said: "Through this relationship,

Bakwena has ensured that road safety, our top priority, is at a heightened level over holiday periods. The collaboration doubled route surveillance vehicles during this past festive season, which means an additional four surveillance vehicles were added to the N1 between Proefplaas and Bela Bela, and an extra two vehicles were added to the N4."

Imperial and Europcar handed over six patrol vehicles to Bakwena on 5 December 2016 at the Jeppe Quondam sports complex in Bedfordview. Van Wyk said the relationship had been highly successful for five years.

"It is aimed at improving route surveillance, patrol support and post-

crash care during South Africa's busiest holiday season.

"Increasing the number of highway patrol vehicles along the route has been of great assistance in regulating driver behaviour, which in turn improves road safety."

Through this partnership, the Bakwena route has seen a decrease in the number of fatalities, which makes it clear that support from corporate South Africa for initiatives like this plays a pivotal role in addressing the issue of road safety.

In addition to this, the various traffic authorities responsible for law enforcement carried out regular enforcement along the N1N4 route over

the holiday period, to clamp down on all forms of irresponsible driving – including speeding and drunk driving, which are major contributors to road crashes.

"Road crashes are typically unexpected and sudden – leaving a devastating impact on all parties involved. For this reason, we welcome the continued support from Imperial Road Safety and Europcar in assisting road users and ensuring safer roads for all," Van Wyk said.



For live and up-to-date information on the N1N4 route, follow Bakwena on Twitter @BakwenaN1N4

Eating ethically

we love Fairtrade



Eating is both necessity and pleasure. We all do it. But some of us don't have enough to eat, while others eat too much and unhealthily. Against this background, a responsible consumption movement is growing across the world.

It's about understanding that what you eat and how you prepare it have many impacts – on your health and quality of life, for example – and on the environment, the fight against poverty and agricultural practices and prices.

Fairtrade is part of responsible consumption. This is an international process of certifying food supply chains to ensure ethical production practices. When shopping for food, keep an eye out for the Fairtrade logo. By buying these products, you will help make agriculture more environmentally friendly – and ensure fair wages for more farm workers and small farmers.

By taking a bit of care when food shopping you can make a healthy contribution to the world.

Homemade Iced Coffee

Most of us want (or need) a cuppa in the morning. But it's hot out there. Why not try a refreshing alternative?

Basic Recipe

The best iced coffee is not made by simply adding ice to hot brewed coffee. It takes a little planning, but it's still pretty easy and worth the effort.

Brew some good-quality Fairtrade coffee the night before. If you like it sweet, this is the time to add the sugar so that it can dissolve. Keep aside until it reaches room temperature. Cover and put in the fridge overnight.

Ingredients:

Use milk, sugar and flavours according to taste
1 cup ice-cold (from the fridge), brewed Fairtrade coffee
Milk or fresh cream (according to taste)
1 tsp vanilla extract
Ice

Method:

Fill a glass with ice cubes and add the vanilla extract and milk/cream according to taste.

Fill the rest of the glass with the iced coffee, stir and enjoy.

Flavour variations:

Add one of the following:

Cinnamon
A pinch of sea salt
Chocolate syrup
Or omit the milk and sugar and simply add condensed milk

Healthy version:

For a dairy-free alternative add coconut, soya or almond milk
Use Xylitol or palm fruit sugar instead of granulated sugar
Soak dates and liquidise in the blender with the coffee and milk for a kick of fibre and sweetness

Rocket, bluecheese, dark chocolate and drunken grapes salad

This recipe might seem strange, but once you taste it, it will become a favourite.

The bitterness of the dark chocolate and the blue cheese marries perfectly with the sweetness of the grapes and the peppery rocket. But the success of this salad depends highly on the quality of the ingredients.

For the drunken grapes...

Ingredients:

1/4 cup Fairtrade white wine
1 Tbsp raw honey
2 Tbsp granulated sugar
1 Tbsp fresh lemon juice
1 1/4 cups seedless sweet grapes (red and white)

Method:

In a saucepan, boil all the ingredients (except the grapes) together until reduced to a syrup (4-5 min). Reduce heat, add grapes and simmer for a few more minutes until the grapes are tender.
Take off the heat and let it cool before

gently adding it to the salad.

These grapes can also be served with fresh cream or ice cream, with cheese and biscuits or as a filling for a tart.

Hint: The quality of the wine will determine the quality of the syrup.

For the salad...

Ingredients:

(Serves 4 as a starter)
A handful of chopped Fairtrade dark chocolate
350g fresh rocket leaves
150g pecan nuts
175g blue cheese
1 1/4 cup drunken grapes (see above recipe)
Olive oil
Freshly ground black pepper

Method:

Place the rocket on a serving dish and drizzle with olive oil.
Add the rest of the ingredients and spoon syrup from drunken grapes over the salad.
Enjoy with a full-bodied Fairtrade red wine.

In good company

SANRAL is incredibly committed to empowering and developing local SMMEs wherever the agency invests in infrastructure. Its recent SMME training programme in the Eastern Cape yielded positive reactions from the region's small businesses. Here's what these valuable contributors to the local economy had to say about the programme...

Ntomb'zonke Ngwekazi
Funokwenzani Trading (Mbizana)

me. I want to continue to work in the construction industry. The N2 Wild Coast Toll Road project will reduce the time of delivery vehicles delivering goods. It will also create jobs for unemployed people."



Lindiwe Nokhele
Gandundu Trading (Lusikisiki)

"This project is a great opportunity and will create work for people where unemployment is very high. The course I am taking is also teaching me to communicate better and how to handle people in the workplace. I also believe the N2 Wild Coast Toll Road project will create jobs; there are possibilities of shopping malls being developed in the area and we will also have quicker access to other cities."



"The N2 Wild Coast Toll Road project is the best thing for this area in the Eastern Cape. This area is very poor and underdeveloped, even though it is one of the loveliest places."



Sipho Mpetshwa
Mpetshwa Trading Enterprises (Port St Johns)

Mongezi Gcuma
Ibantlu Energy Workers Co-Op (Mbizana)

"It is very difficult to get work here. I hope to grow and employ other people from this area after my training. This opportunity came at the right time for

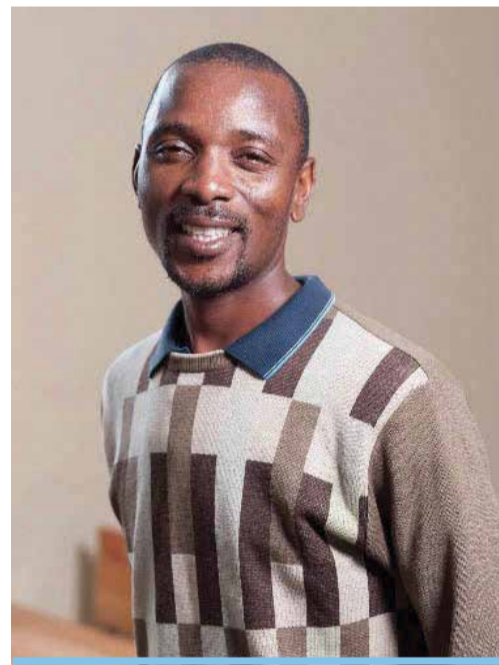
"The course presented by SANRAL has taught me a lot about running a construction business. It has been a dream of mine to have a construction

company and with this programme and projects, my dream is becoming a reality. I am very happy about the training and the N2 Wild Coast Road project. The project means more jobs will be created. Once the road is completed, it will boost our economy. There is a lot of poverty here."



Daliwonga Sibeni
Ngxathi Trading Enterprises (Mbizana)

"This project will help me create work for people in an area, where almost 85% of youth are unemployed. My goal is to learn more about the construction industry. I am also excited about the N2 Wild Coast Toll Road project. This project will boost tourism in the area and create much-needed jobs."



Sivuyile Xuku, Port St Johns local municipality's enterprise development manager, said the SANRAL project "seeks to assist and empower our people to alleviate poverty and create employment".

"Many people will benefit from the N2 Wild Toll Road Coast project. It will boost our tourism economy. Once the road has been built, investors will be attracted to the area."



Wandile Mngeni, from Dubana Administrative Area outside Lusikisiki, believes the N2 Wild Coast Toll Road (N2WCTR) project is a "great project for the community". Mngeni's company, WM Construction Projects, is a CIDB level 1 grade. "The N2WCTR project is a good one for us to get involved in from the start. It will fall on us to maintain that road. I have already hired a supervisor for my company and this person is also part of the SANRAL training programme. There is going to be a lot of job creation in this area."

Make your lift club the safest in town this new term

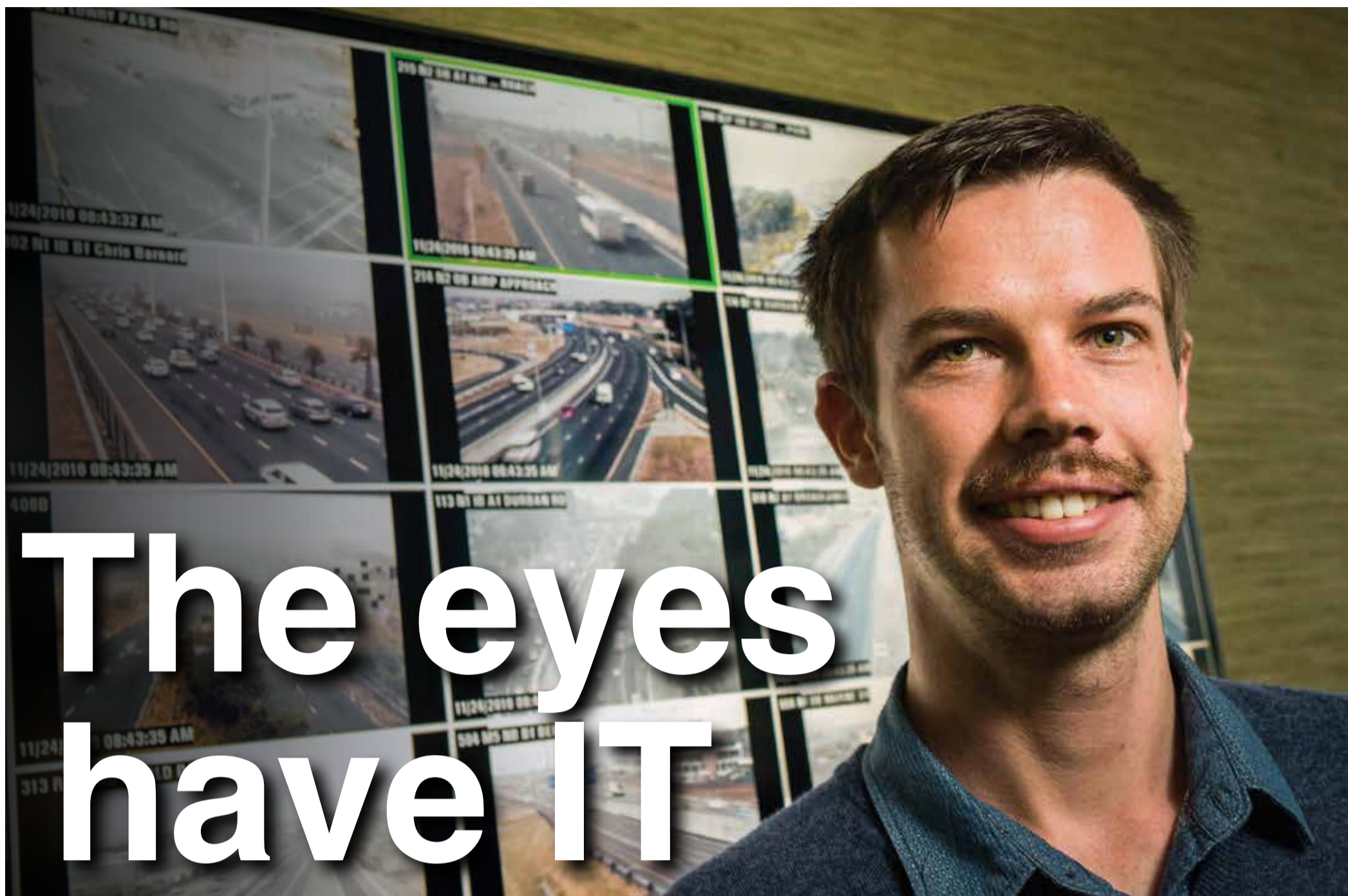
Often that one simple mistake changes you and your family's lives happens in a split second. Take the time and care to buckle up our children, teens, workers and ensure that they are safe. Adults who don't buckle up are not just sending a risky message to their children. Children follow their parents' example.

Make a positive difference and lead by example. Buckle up.

Road Traffic Management Corporation, a lead agency on road safety.

Road Traffic Management Corporation

DON'T IGNORE THE SIGNS



SANRAL Western Region's Hardy van der Merwe

Picture: Brett Eloff

The eyes have IT

Computer vision technology is being used to make roads safer for pedestrians

Stellenbosch electrical and electronic engineering Master's student Hardy van der Merwe has built a piece of software to analyse pedestrian movements using video footage from surveillance cameras along South Africa's highways. He also happens to be a SANRAL intern (Can you tell we're super proud?).

Supervised by Dr Marthinus Booysen and Dr Johan Andersen, Hardy developed the program to extract pedestrian mobility data from the video of foot traffic crossing highways at pedestrian bridges.

Van der Merwe says there is an abundance of pedestrian data in the video footage from surveillance cameras along the freeways.

"What the computer vision technology does is to extract the pedestrian movements from the video footage, which is done by detecting and tracking when pedestrians walk across the bridges," he says.

With this analytical tool, transport authorities will be able to study the impact of pedestrian safety campaigns, study pedestrian flow in specific areas and – used together with gesture recognition – alert authorities of any suspicious behaviour. Since the pedestrian bridges on the R300 freeway are under 24/7 security surveillance, suspicious behaviours could be recognised and steps taken to prevent loitering.

Hardy says the initial research and writing of the algorithm took him two years. The challenge was to remove all the software bugs from the code and to integrate the detection and the tracking stages.

"Although I didn't face too many major challenges along the way, it still needed a lot of patience. It was a time-consuming process which really tested me at times. I had to go through everything meticulously, fix the bugs and rewrite problem areas."

Hardy says he is passionate about technology and how it can be used to improve road safety, as well as simplify mundane tasks.

"What the computer vision technology does is to extract the pedestrian movements from the video footage, which is done by detecting and tracking when pedestrians walk across the bridges."

Engineering, it seems, runs in the Van der Merwe family. Hardy's father, Friedl, is also an engineer and Project Manager at SANRAL's offices in Belville. Hardy says he'll keep working for SANRAL and that his next goal is to become a registered professional engineer.

"One of my goals is to make a positive and noticeable impact on the safety of pedestrians and road users," he says.

Randall Cable (Engineering Manager: Road Network Operations for SANRAL in the Western Cape) says: "We are excited about the potential use of the computer vision technology, as it can provide a much clearer picture of problem areas, pinpoint specific hotspots, pick up trends and help us to predict pedestrian and other road users' behaviour."

Cable says Cape Town's freeways in particular have one of the highest pedestrian fatality rates in the country.

"From statistics gathered (between 2010 and 2016) there is a definite upward trend in the number of casualties and incidents – and this is of major concern. Pedestrian incidents and casualties are particularly severe on Cape Town's freeways running close to densely populated townships and suburbs where there are major pedestrian movements.

"On an average weekday, about 9 000 pedestrians cross the freeways (N1, N2, N7, R300 and the M5) directly. And approximately 15 500 cross the freeways by means of pedestrian bridges."

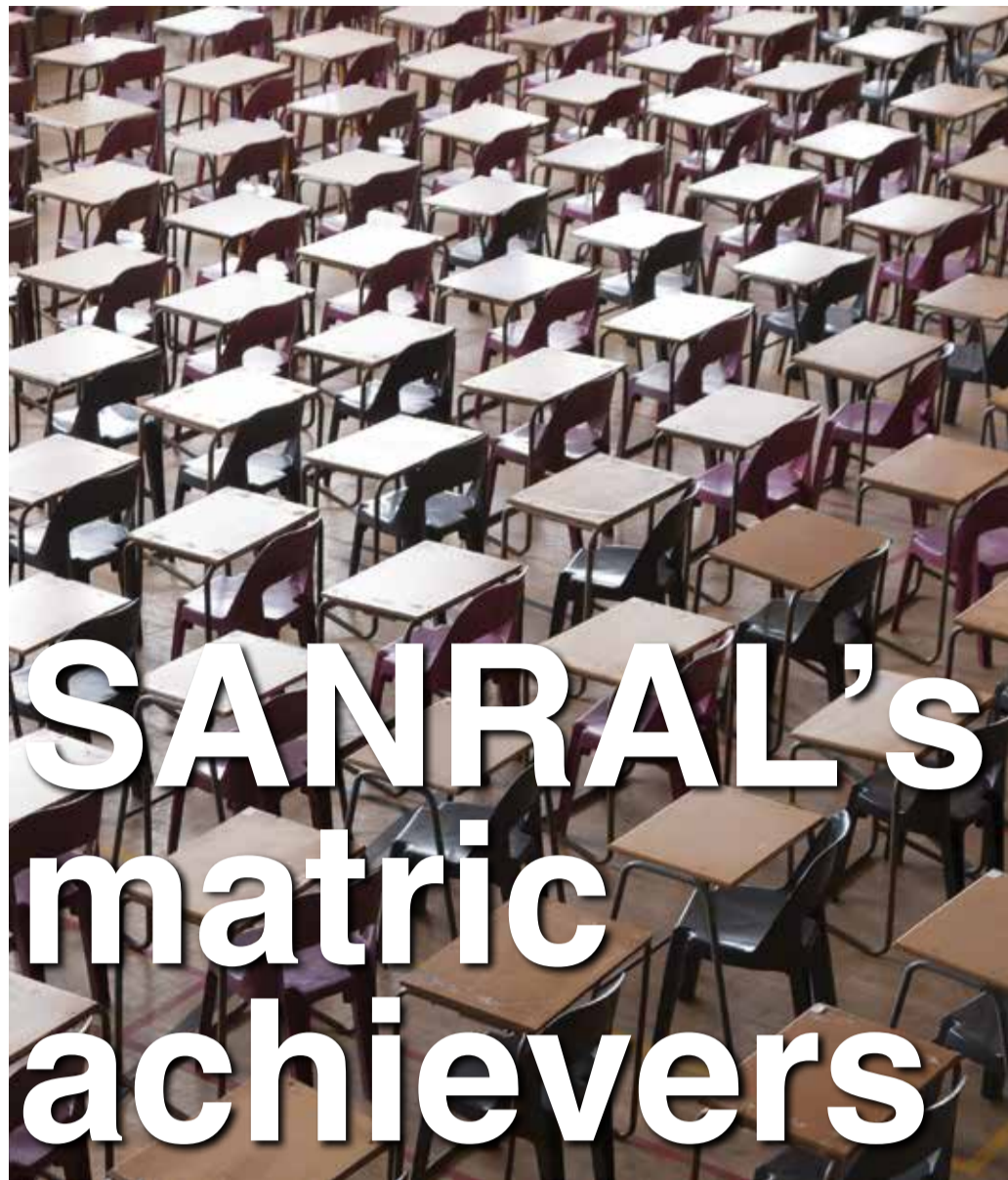
The CCTV surveillance study confirmed that most pedestrians make use of pedestrian bridges where they have been erected.

Cable says the next step is for SANRAL to look at the possibility of installing Hardy's computer vision software as part of future camera installations on the freeways.

The Cape Town Freeway Management System is a three-way partnership among SANRAL, the city of Cape Town and the Western Cape government.



Like useful software? Visit www.i-traffic.com for real-time information about travelling times and incidents on Cape Town's freeways. Follow us on Twitter @CapeTownFreeway and find us on Facebook at Cape Town Freeway



SANRAL's matric achievers

- Matriculants with SANRAL scholarships raked in a combined total of more than 270 distinctions in the 2016 results.
- The learners achieved exceptionally well in mathematics and natural science, with 40 learners exceeding 75% in maths and a further 41 passing the mark in science.
- The financial support from SANRAL enabled 32 matriculants to achieve six or more distinctions, with the top performers – Etienne Erasmus from Grey College and Milan von Delft of Southdowns College – earning eight top marks.
- The average mark per achieving learner was above 75% for both maths and science.
- SANRAL allocated scholarships to 194 learners in six provinces during the 2016 school year. 59 scholarships went to matriculants, 37 to Grade 11 learners and eight to Grade 10s.
- SANRAL invests about R2.5m a year in scholarships for high school learners.
- SANRAL has teamed up with the University of the Free State to offer a Science for the Future programme, which provides e-education to high schoolers and equips educators to improve their teaching skills in maths and science.
- Close on 13000 high school learners and 250 educators benefit each year from the Family Maths and Science programme hosted by SANRAL and the University of the Free State.
- Many of the learners who pass matric with the support of SANRAL are also offered bursaries to continue studies in engineering and related disciplines at universities and other tertiary institutions.

A selection of top achievers in 2016

PROVINCE	NAME	SCHOOL	DISTINCTIONS
Eastern Cape	Bothari Baloyi	Collegiate Girls High	7
	Aldene Holben	Alexander Road High	7
	Wian Strydom	Daniel Pienaar	7
Free State	Eleonara Entius	Jim Fouche	7
	Nelize Venter	Eunice High	6
Gauteng	Lindelani Mahada	Willow Ridge High	5
KwaZulu-Natal	Mfolozi Dlamini	Michaelhouse	3
	Nimal Gajadhur	Northwood High	7
	Maxine Khumalo	Durban Girls High	7
Limpopo	Khomotjo Mokgotho	Mohlapetse Secondary	4
Western Cape	Maxwell Vearey	St George's Grammar	6

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Dec/Jan Crossword Solutions

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	B	A	O	B	A	B		M	B	U	L	E	L	O	
2	L	O	W	E	R		P	O	E			D	O	W	N
3	A	R	E	A		D	E	B		D		A	L	L	I
4	S	T		R	E	A	R		F	I	L	M			
5	T	A	T			R	M			P				O	K
6	I		W	Y	N	T	I	R		U	R	D	U		H
7	N		I		A	S	S		S	O	A	R		M	A
8	G	U	T				S	W	O	P		I		A	Y
9		S	T	L	U	C	I	A		E		V		D	E
10	B	E	E			C	O	S	A	T		E		O	L
11	E	R	R	O	R		N		B	E	R	R		D	I
12	A		H		B		B	E	R	Y	L			A	T
13	M	A	C	O	Z	O	M	A		S		E	M		S
14		L	A		I		D	A			S	H	A	H	
15	M	A	N	D	E	L	A		H	O	E	S		S	A



Rare plants will not be lost during road construction

While roads infrastructure is a social and economic necessity, it shouldn't be at the expense of environmental sustainability. Our national roads agency is working to ensure that a leisurely Sunday drive along the N3 from Durban to Pietermaritzburg continues to be a feast for the eyes – especially given the several plant species, including a range of specially protected bulbs and aloes growing along the N3, have been translocated to a temporary nursery to save their being destroyed during the upgrading of the Hammarsdale interchange.

SANRAL and eThekweni municipality's environmental planning department have worked together to ensure that road development would not place rare flora at risk.

The agency encourages planting partnerships in its quest to repopulate the road reserve to the state it was in before construction began. Plants such as *aloe arborescens*, *ledebouria floribunda*, and *hypoxis hemerocallidea* have been transplanted.

Motorists who use this route regularly have expressed their happiness that the plants in the way of the roadworks were saved for replanting.

Santha Naidoo of Durban said: "I use this route quite often and have always admired the variety of vegetation on either side of the N3. SANRAL must be commended for its environmental stewardship."

SANRAL Eastern Region Project Manager Jason Lowe said: "Plants that lay within the limits of the construction works needed to be removed to avoid being damaged and destroyed."

"In keeping with SANRAL's approach to environmental management, based on its commitment to enhancing eco-efficiency and identifying and managing or eliminating environmental risks, biodiversity assets at the project site needed to be secured.

areas where construction of the new ramps for the interchange was going to occur. The indigenous plants would have been damaged or destroyed by construction machinery and blasting if they had not been moved."

An environmentalist highlighted areas and the type of indigenous plants most likely to be found within the project limits. Thereafter, a visit to the site was conducted, where the plants were identified and marked for removal and safekeeping until construction was complete.

A plant specialist was engaged to remove the plants carefully, as different species require different removal techniques.

"Plants that lay within the limits of the construction works needed to be removed to avoid being damaged and destroyed."

"Part of the area falls within Durban Metropolitan Open Space System, which manages grassland and any vegetated areas along the N3. The plants occupied

"The plants were relocated to a temporary nursery where they will be monitored until they are replanted in their original environment," Lowe said.

The plants will remain at the temporary nursery until construction is completed in their respective areas, around June 2018.

The development of Keystone Park Light Industrial, Warehousing and Logistics Precinct at Hammarsdale is expected to increase the volume of traffic – especially heavy vehicles – using the interchange.

The intersection of the N3 and MR385 will be upgraded from a simple diamond to a new partial clover leaf, free-flow interchange. The upgrade will include the realignment of the MR385, as well as the demolition of the existing structure once the new structure and relocated MR385 is complete and open to traffic.

The project's goal is to transform the economic landscape, create new jobs and strengthen the delivery of basic services.



They may not look like shop tomatoes. Your own homegrowns will have different sizes and shapes. And they taste very different. Good different. In fact, once you've had a tomato from your own garden, you will know for the first time what this fruit (yes, it's a fruit) is supposed to taste like.

They're actually quite easy to grow. What you need is an area that's well drained and gets full sun – preferably eight hours, but five hours will do. The easiest way is to get seedlings. Water the ground before you transplant them; make a hole slightly bigger than the root system of your tomato plant; partly fill it with fertiliser and compost before you put in the seedling and firm up the ground around the plant.

They like space, so 50cm apart is good.

Tomatoes have to be watered regularly. Avoid wetting the leaves – cumbersome, I know, but it helps to avoid disease. Gently add water, but lots of it. These suckers are thirsty! Don't forget to add some more fertiliser and compost every few weeks, as tomatoes just love being spoilt.

You will have to help the plant stay upright to avoid the fruit touching the ground and going off. Some growers use a cage, but pushing a sick into the ground next to your tomato and fastening the vine to the stick will do just fine. Don't make the knot too tight, though. Your tomatoes will want space to grow.

It is usually said that you should pick the tomatoes once they're ripe. I've found the best time is actually when they go orange. Let them ripen in your kitchen (preferably not in the sun). And whatever you do, don't keep them in the fridge, even if they're ripe. They'll lose flavour, though they might last longer.

After all, it is the taste you're after.

Speaking of which, did you know that no recipes prior to the mid-16th century had tomatoes as an ingredient? That's because they only arrived in Europe from South America in the mid-16th century. The first Europeans to eat the new "vegetable" were the poor; the rich initially thought they were poisonous.

You have to be cruel to get the best tomatoes. Rip the plants out once they have given you a crop. This tells you something important: to have a constant supply of your own tomatoes, you should plant several groups of six each at, say, fortnightly intervals. As the first groups begin to fade, the second lot will begin to deliver.



WHOA!

TEXTING AND WALKING IS A DANGEROUS OPTION.

Walking and texting on your cellphone takes your focus away from the traffic around you.

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what you said

*We've been putting a lot of work into ensuring that **By The Way** is an informative and entertaining read for South African road users. We wanted to find out what you think about our publication, so in November 2016, we took to the N1 highway and interviewed some readers who had just received their complimentary copy. This is what they had to say...*

Kroonvaal 1-Stop, near Kroonvaal Toll Plaza

It helps you to be aware



Patrick Dlomo and Stanford Moreki, who work at the Kroonvaal 1-Stop near the Kroonvaal Plaza, told us that their customers come back hoping that the next issue is out.

"It has each and every detail about the road, and lets you know all the things you should be aware of," says Patrick.

A quality publication



Michelle Forbes was on her way to Lesotho for a quad-biking adventure. She said that **By The Way** is an excellent quality publication.

"I work at an ad agency and I can tell that this is beautifully produced," she said.

Easy on the eyes



Augustinas Motoikha, who was on his way to Kroonstad for a meeting, said that he loved the colourful pages.

"And the writing is big enough to read easily," he said.

Great recipes and crosswords



Jesline Makoa, who was travelling with Augustinas to the meeting, said it was useful to know what was happening on the road.

"I also like the recipes and the crossword."

Panorama Petroport, near Panorama Toll Plaza

Great reviews!



Raymond Charles Hayden from Springs, who was travelling with his children, Rayka and Andray, to a funeral in Nylstroom, said that as a family man he liked the entertainment features in **By The Way**. "I really like the app reviews on Pg3," he said.

We can plan our journey



Sasa Wallace, a military practitioner from Montana Gardens in Pretoria who was going away for the weekend with a biking club, read the entire magazine from cover to cover before commenting. She said that **By The Way** helps road users to plan their route.

"I am impressed that you are addressing this. We can see where there are road works, so we know where there's going to be traffic and we can plan our journeys. It makes us wiser."

She added that this would help to keep

road users safe. "There are a lot of changes every day that it's nice to know about."

Good to get updates from SANRAL



Tebogo Aphane, an estate agent, was travelling with his wife, Dimakatso, a furniture manager, to take their children to their grandmother in Polokwane for the school holidays. He took his time to look through the publication – and then said it was useful to have learnt what SANRAL is up to.

"We have a nice bridge here now," he said, pointing to a recent construction over the highway.

We are interested in bikes!

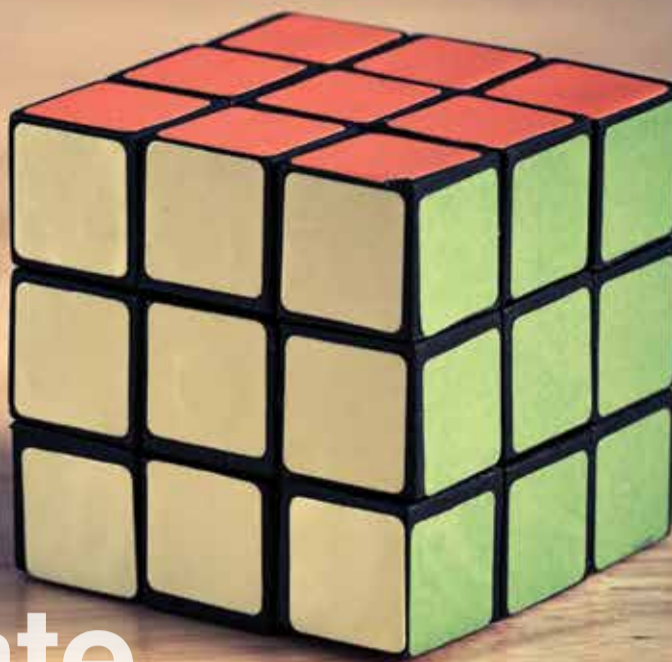


Tinti Ndele is a traffic officer who was also travelling with a bike club. She said that as an avid road user, she'd like to see more stories aimed specifically at bikers.

"We are all about the bikes," she laughed.

Scramble your brains with our boffin-baffling crossword puzzle

Captivate & fascinate



CROSSWORD Some answers can be found in By The Way

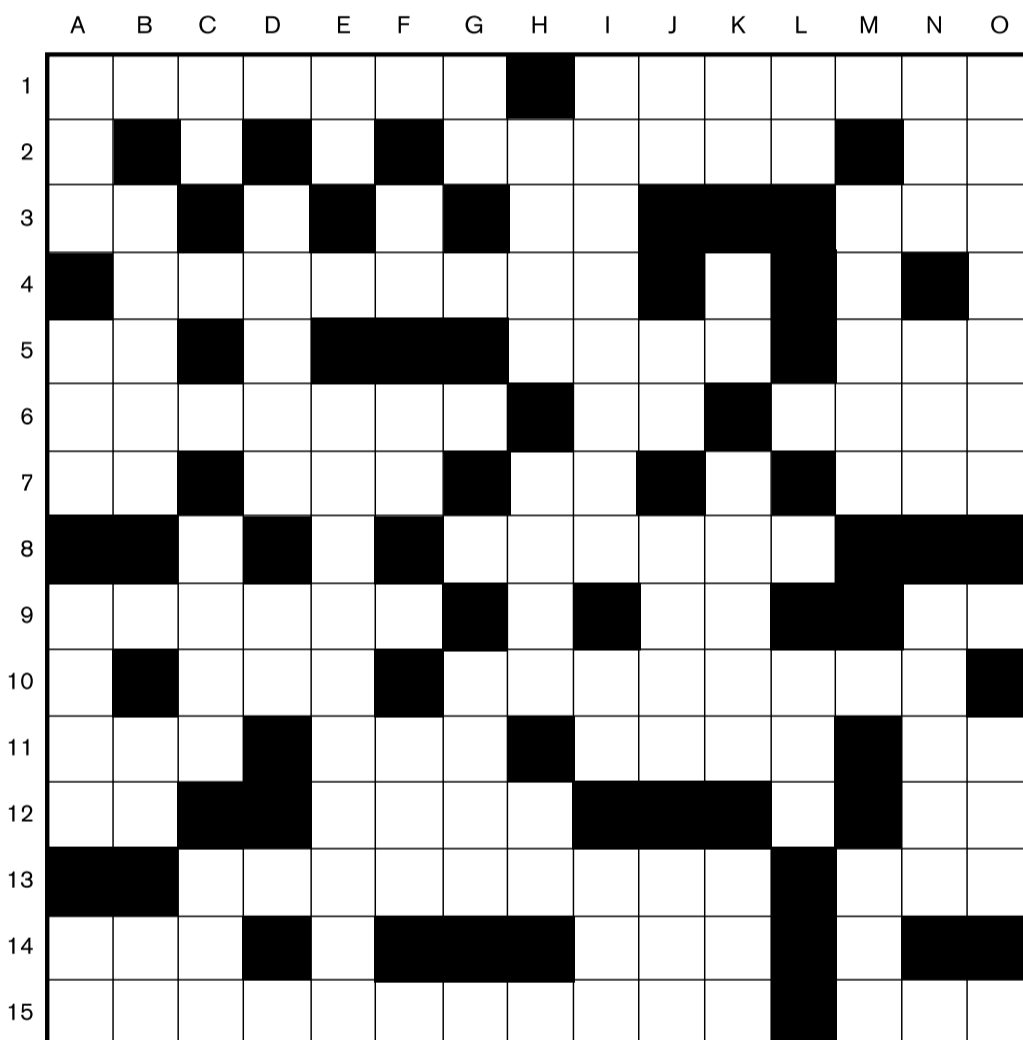
ACROSS CLUES

- A1: What is the common name for a road stud or deflector (2 words)
- I1: Sticky black stuff used in road construction
- G2: Sour ale, malt, vinegar
- N2: Symbol for Radium
- A3: Abbr. for Salvation Army, South Africa
- H3: ... Alamein (British victory here)
- M3: Travel over snow on wooden slats
- B2: Dep Minister of Transport
- A5: Introducing the second of two alternatives
- H5: Woodwind instrument of treble pitch
- M5: Tree of genus Quercus
- A6: Which service ensures the longevity of a car's life
- I6: Abbr. edited
- L6: Said to cause laughter
- A7: Symbol of Einsteinium
- D7: Abbr. European Economic Community
- H7: Abbr. Sri Lanka
- M7: Equality, even footing
- G8: Name of the Reptile Centre near Hoedspruit
- A9: Which construction built by SANRAL in vicinity of Botlokwa saved lives
- J9: Write male pig without the "h"
- N9: Fifth note of scale in doh system
- C10: Prep. by way of, through
- G10: Cycad reserve near Tzaneen
- A11: Tract of open land esp. grassland
- E11: Abbr. non-commissioned officer
- I11: Perfumed flower
- N11: Slang for Dad or Father
- A12: Abbr. Los Angeles
- E12: Hindu system of philosophic medication and exercise
- N12: Type of printer or condiment / sauce
- C13: Rare, endangered and endemic species are rescued by SANRAL near which town
- M13: Jump on one foot
- A14: Place to drink

- I14: Shelter given by neighbouring object
- A15: What type of city is Thulamela, east of Pafuri
- M15: Friend

DOWN CLUES

- A1: Type of lettuce
- C1: ... and fro
- E1: Abbr. for example
- G1: Abbr. each
- I1: Warmbaths, north of Pretoria (2 words), now known as?
- J1: To set fire and cause to burn (ending of word is ... nite)
- K1: Slang for thank you
- L1: Pref. primitive, original, earliest
- N1: Naval rating, disliked person
- O1: Last name of a SANRAL Eastern Region Project Manager featured in this edition
- H2: Toy consisting of interlocking plastic bricks
- B3: Measures of land
- D3: Hurt - pride or self-respect
- F3: Abbr. Oxford University
- M3: Small one-masted water vessel
- K4: Myself
- A5: Solid rock or mineral found in earth's crust
- J5: Hypothetical power once thought to pervade nature and account for scientific phenomena
- M5: Abbr. also known as
- E6: What is the surname of the ZCC bishop?
- F6: Account with slash
- H7: Exclamation used to frighten birds, etc. away
- K7: Long, episodic stories, e. g. Viking legends
- C8: Great women singer, Prima Donna
- J8: Magic charm or spell, attitude
- A9: Ringing instrument
- D9: Abbr. Defense Intelligence
- N9: Name of TRAC's mascot
- G10: Slang for cats
- I10: Abbr. doctor
- L10: Slang for debutante
- B11: Abbr. each
- F11: Projection on end of wheel transferring motion
- O11: Abbr. application
- H12: Express exact, approximate or vague position
- C13: To and ...
- I13: Whole amount, quantity
- J13: Sum payable
- K13: Supplied with food
- M13: Child's play: ..., skip and jump
- A14: British Standard
- B14: Symbol of astatine



* Solutions to this crossword can be found in the next issue



MORE ENVIROBUNCH IN THE NEXT "BY THE WAY"