

Vicroads Association

Newsletter No.206



Membership of the Association is available to all who have been members of VicRoads or forerunner organisations or the spouse of deceased members and bestows on them all the rights of the Rules of Association. Current cost of membership is a once only fee of \$30 plus a joining fee of \$5. Enquiries about membership or receipt of the Newsletter by e-mail should be directed to the Secretary at 60 Denmark Street Kew 3101 or by phone or e-mail as shown in the footer below.

Dear Members,

My introductions to the newsletter are usually light-hearted and easy reading. At least that is what I strive for. Sometimes they are personal. I quite like wearing my heart on my sleeve and I have so many good things to report on for this newsletter, especially about my recent trip to England, Scotland, Iceland and Scandinavia. But I want to put that aside for now.

I have a heavy heart for this edition because of the recent death of Tom Russell. There has never been a more loyal servant to the Country Roads Board, the Road Construction Authority, the municipal authorities around Victoria and the general populace of the State, than Tom. He epitomised all the virtues of exemplary public service.

Under his leadership, the CRB/RCA provided services that were attributable to team work, quality, sustainability and high levels of training and education. The organisation attracted people with a public service ethos who strived to contribute to the wider community through their professional work.

I daresay every member of our association knows Tom and would have stories to tell about him. But the amazing thing is that Tom knew everyone of you and your partner's name and what your kids were doing and which team you supported in the footy. It did not matter who you were and what your status was in the organisation – he treated everyone in the same way and he was genuinely interested in our stories.

He rose to the highest level in the CRB and the RCA and worked in close association with all the Ministers of both sides of the political spectrum. In fact he had high esteem for all of them and thought that they all genuinely did their best to improve the state's road network. He dedicated his entire career to the CRB/RCA starting as an engineering assistant on the North South Road in the Northern Territory during the Second World War. His death draws to a close all the CRB personnel who worked on that project.

Tom died of a stroke on 16 August. He was nearly 93. He requested that there be no funeral for him. He said that he had attended so many funerals in the last few years he didn't want to go to his own.

He was a regular attendee at all out functions and excursions and he will be sorely missed. I considered him to be a friend and not my boss for so many years. I have included an obituary later in this newsletter.

David Jellie
President and Editor

Dates for your diary

November	Monday 26	12 noon	Occasional lunch, Shoppingtown Hotel
December	Monday 3	12 noon	Christmas luncheon
2019			
February	Monday 11	12 noon	Occasional Lunch, Shoppingtown Hotel
	Friday 22	TBA	Golf Day at Green Acres Golf Club

Vale

Tom Russell

Tom died of a stroke on August 16 2018.

Thomas Hendry Russell was born in Geelong and was forever destined to support his beloved Cats. As a young man he would have been proud of the 1951/52 premiership teams and he was a personal friend of the Geelong captain, Fred Wooller, the captain of Geelong's 1963 premiership team. He has also had a lot to purr about over the last decade.

Tom was also a very good player. He represented the Victorian Amateur Football Association in the interstate competition between Victoria and South Australia in 1949.

Tom was born in Geelong in 1925. His parents were Scottish immigrants who arrived in Australia in 1920.

He won a small studentship to the Gordon Institute of Technology in Geelong to study civil engineering and so commenced his love affair with engineering. After completing his studies for a Diploma, Tom was allotted to the CRB by Manpower Authorities at the beginning of 1943 to be employed by the CRB on the construction of the North-South Road in the Northern Territory. Accompanying him was another Gordon classmate and Country Roads Board (CRB) stalwart, Keith Moody. The North-South Road is now the Stuart Highway. He also worked on the construction of Gorrie Aerodrome, and later, other aerodromes in Victoria. He was awarded the Civilian Service Medal 1939-45 for his contribution.



The Victorian team. Tom is second from the right in the back row. The bloke third from the left in the second row could also play. He is John Kennedy, legendary player and coach of the Hawthorn Football Club.

After the war, Tom attended the University of Melbourne and graduated BCE (Hons) in 1948. He was awarded the John Melvin Memorial Scholarship which enabled him to obtain a MEngSc(Hons) in 1949.



Tom and Keith Moody in the Northern Territory.

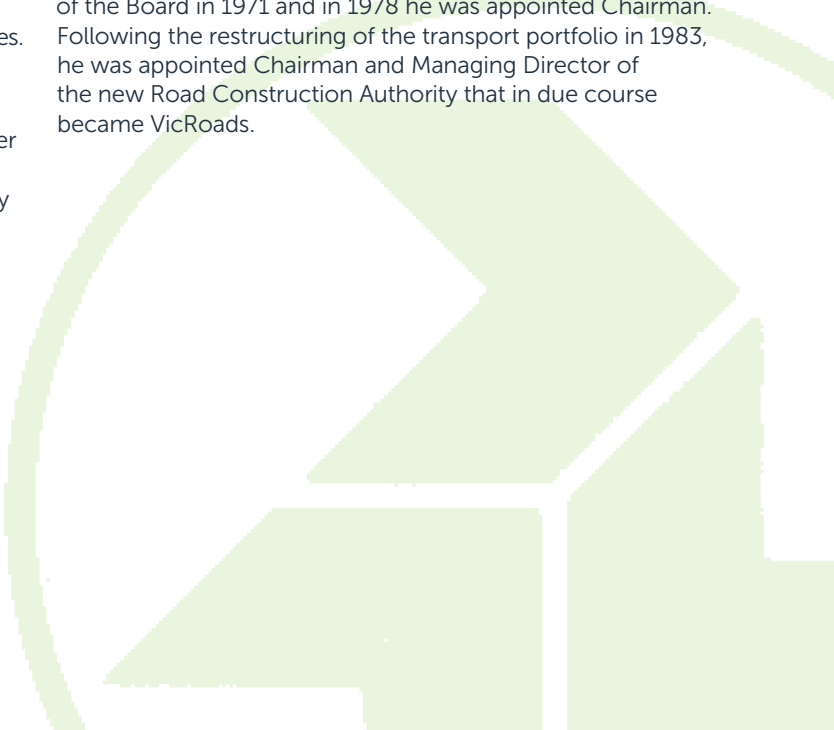
In 1953 Tom married Patricia Elliot. They had a wonderful life together, and their two children, five grandchildren and their great grandchildren played the most important part in their lives.

After completing his university studies, Tom returned to the CRB and his star soon shone. He worked in the Divisional offices of Benalla and Traralgon on a large number of road and bridge projects. He came back to Melbourne in 1959 and soon rose to be the Chief Bridge Engineer, Deputy Chief Engineer, and Chief Engineer.



Tom on his graduation day.

He was appointed by the State Government as a member of the Board in 1971 and in 1978 he was appointed Chairman. Following the restructuring of the transport portfolio in 1983, he was appointed Chairman and Managing Director of the new Road Construction Authority that in due course became VicRoads.



In 1967 he was Chairman of the Structural Branch of the Victorian Division of the Institution of Engineers, Australia and between 1974 and 1981 a member of the Engineering Faculty of the University of Melbourne.

Tom retired in 1986 after more than 40 years of service to the State of Victoria and during this period he published over 30 technical papers associated with his work. Between 1971 and 1986 he was a Director of the Australian Road Research Board and a member of the National Association of Australian State Road Authorities (NAASRA), and served as Chairman of both these organizations. He was also a member of the West Gate Bridge Authority and the Victorian Transport Borrowing Agency.

From 1973 to 1977 Tom was the convenor of the steering committee for NAASRA's Economics of Road Vehicle Limits Study which resulted in considerable progress towards rationalization of mass and dimension limits for heavy vehicles throughout Australia.

After his retirement, the Government appointed him to undertake consulting work in respect to the Light Rail conversion of the Port Melbourne and St Kilda heavy rail lines.

However this picture of engineering administration and leadership - personified by his loyalty, initiative, drive and hard work - is only part of his achievements. To all those thousands of people who worked with him he will be remembered as a man of genuine compassion who will be remembered by his friendliness and personal concern for the welfare of other people. This applied to both his professional and private life.

He was courteous and fair-minded in all his dealings with people of all ranks - from the Premier to the field worker. He stepped outside his profession to give significant community service. He was a former club president and district governor of the Association of Apex Clubs and a past president of the Hawthorn Rotary Club. He was Chairman of the Victorian State Committee of the Duke of Edinburgh's Award in Australia. He and Pat welcomed international exchange students to their home.

His service to Local Government was outstanding. He fostered cordial relationships with all the municipalities in Victoria and his career stands as an example of distinguished civic service combined with technical and engineering competence at its best. So appreciative of his loyalty, advice and assistance to Local Government, The Local Government Engineers Association of Victoria made him an Honorary Life Member of the Association.



Tom as we remembered him as Chairman.

In 1987, Tom was appointed a Member of the Order of Australia in recognition of his services to road engineering and construction.

At his private funeral, Verse 26 of the Rubaiyat of Omar Khyyam was read out. I think it is fitting to include it in this tribute.

*The Moving Finger writes and having writ
Moves on: all your Piety nor Wit
Shall lure it back to cancel half a line,
Nor all your Tears wash out a Word of it.*

A friend, a colleague and an ally, Tom's contribution was enormous and it is unlikely that we will see his likes again.

Peter Ravenscroft

A notice in a recent Age newspaper reported the death of a Peter Ravenscroft and I suspect it was the same Peter who worked for many years in the Bridge Design Division. Can anyone confirm this for me?



What's coming up

Occasional Lunch – Shoppingtown Hotel – Monday 26 November 2018

Bookings are not essential, but it would help with arrangements if you can let Kelvin York know on 9438 1028 if you can attend. We hope to see you there.

Christmas Lunch – Monday 3 December – 12 noon for 12.30 pm lunch

The location and arrangements for the lunch will be the same as for last few years. Drinks will commence at 12 noon with lunch being served at 12.30 p.m. The cost will be \$45.00 per head and we require prepayment either by cheque or bank transfer.

If you propose to come, please fill out the acceptance form at the end of this newsletter, and post it – together with your cheque – to:

Jim Webber,
Secretary VicRoads Association
c/o Natalia Morgan
60 Denmark Street Kew, Vic 3101

Cheques should be made out to VicRoads Association.

Direct bank transfers should be made to VicRoads Association BSB 083323, Account Number 170934017 and you should include your name as a reference – so that we know who has made the payment.

If you choose to pay by transfer, we would appreciate it if you ring or e-mail Jim just to let him know that you are coming.

Please respond by Wednesday 28th November to allow sufficient time for catering arrangements.

Please also note that lunch will be again served on the mezzanine floor of the cafeteria (first floor, north east wing).

What's been happening

Visit to VicRoads – Monday 30 July 2018

I am indebted to Ted Barton for the following notes.

The visit to VicRoads was very successful with 23 members attending the presentations and 12 attending an early lunch in the Café where they provided us with a special table in the mezzanine section.

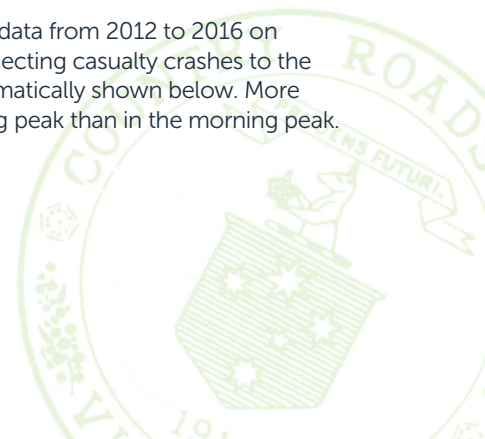
The first presentation was made by John Gaffney and Mathew Hall. It was entitled, "STREAMS Strategic, Operational and Improvements Group (SOIG) on Urban Motorways – Safety and Efficiency Through understanding complexity". It was a very technical Power Point presentation showing how 'fine grained' surveillance of the traffic stream can detect anomalies in the behaviour (of even individual vehicles) that invariably leads to crashes and or a breakdown in the efficient flow of vehicles.

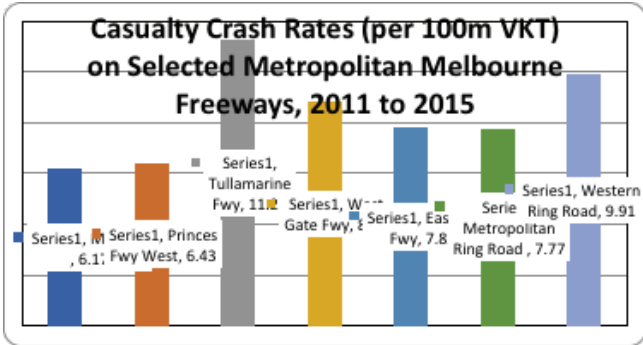
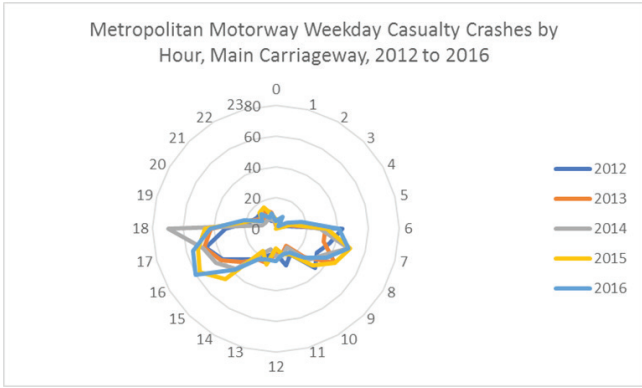
SOIG's aim is to provide road users with 'good quality journeys', that is safe operating conditions, acceptable travel times (by minimising delays – but not necessarily delay free) and reliable travel times (consistent travel times for regularly travelled trips).

In order to achieve this aim it is essential to collect data so that problems are identified at the right level of detail. These data include 5 minute carriageway data, 1 minute carriageway data, 20 seconds at the carriageway/lane, vehicle event data and driver response. The density of traffic is a function of vehicle characteristics, driver following behaviour and driver lane changing. These data are collected not over an extended length of the road but within a cluster of vehicles. It is the traffic volume spikes that cause a freeway to breakdown.

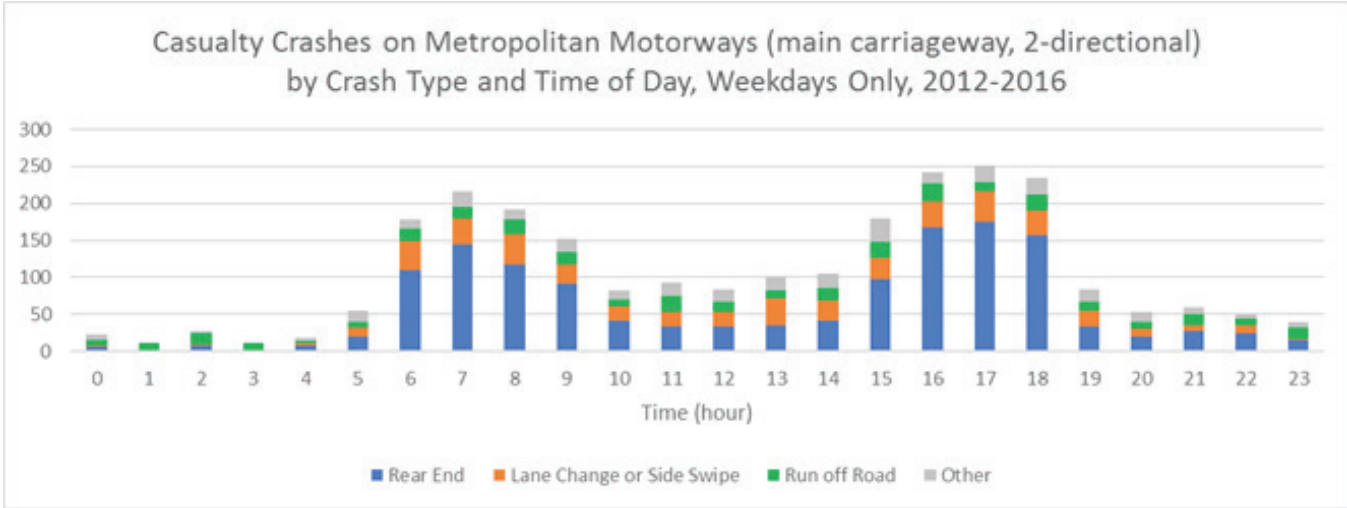
Now this seems difficult for me, the editor, to understand but arising from this research and data analysis is the notion that flow breakdown is probabilistic and therefore requires an understanding of the stochastic nature of traffic. 'Stochastic' means having a random probability distribution or pattern that may be analysed statistically but may not be predicted precisely. VicRoads' analysis at multiple bottleneck locations shows that as flows increase, the probability of flow breakdown increases.

VicRoads has also analysed data from 2012 to 2016 on Melbourne's Freeways connecting casualty crashes to the time of day. This is diagrammatically shown below. More crashes occur in the evening peak than in the morning peak.





They also compared casualty crash rates on selected freeways with the following results.



This graph shows that rear end crashes are most common during the peak hours when traffic flows are the greatest and in the wee small hours most of the crashes are run off the road probably as a result of fatigue.

So it is important for SOIG to understand the patterns of chaos on the road network so that they can develop control systems to account for this chaos and complexity. Ramp metering is such a control system where signals control traffic entering the freeway and ramps can talk to each other along the freeway to optimize traffic flow.

The second part of the visit was to the Traffic Management Centre. Keith Weeberg gave a short introductory briefing about how the system works in relation to detecting and managing the response to crashes and other interruptions to traffic flow on the Metropolitan freeway network, including coordination of activities involving VicRoads, the Police and other Emergency Services.



VicRoads Traffic Management Centre (TMC) operates 24 hours a day, every day of the year, to deliver real time traffic management to Victoria. The TMC handles over 250,000 calls a year, responding to incidents and events that may affect traffic safety or flow. These can include: traffic light faults, breakdowns on major arterials or freeways, vehicle crashes, debris and spills, hazards reported by the public, natural disasters such as fires or floods, major sporting and social events

Advanced telephone and radio communication facilities link the TMC with VicRoads Incident Response Service (IRS), police, emergency services and maintenance personnel, to ensure there is an immediate response to incidents that may affect the safety or flow of traffic.

When an incident occurs, Traffic Management Centre (TMC) staff can instantly respond. Depending on the nature of the situation they may close lanes, reduce the speed limit and program the electronic information signs to warn road users of the incident ahead. During this time the incident can be monitored using the system's traffic cameras located along the freeway.

The TMC is also the VicRoads contact point for all road and traffic aspects of the Victorian Emergency Management Plan. This means VicRoads has a central role in dealing with emergencies such as floods, bushfires and other potential disaster situations that affect roads. VicRoads is the official source of road information for all emergencies that affect roads.

Following this presentation the group was taken down to the Control Room where Keith explained the working of the centre and we were able to observe the operation of the numerous TV cameras and other associated 'real time' traffic information activities.



The Traffic Management Centre

The third part of the program dealt with the VicRoads Motor Registration and Licencing activities. This was given by Shannon Elston who talked about the changes and challenges for VicRoads and the Government in respect to Transport and Safety in Victoria.

Unprecedented changes in Victoria are occurring that are creating pressures for Victoria and its citizens. These, together with the challenges facing VicRoads are shown in the following diagrams:



VIC has the highest population growth at 2.5%

- Creates complexity of people's mobility and service needs
- Creates pressure on roads and transport systems
- Creates complexity in maintaining community and transport safety
- Extra pressure on already congested network - development/maintenance of current road network
- Arterial road development capped beyond mid 2030s

Technology Forces For Change

- Emerging new vehicle ownership models
- Emerging new vehicle technologies

What our community experience . . .

- Sprawling urban areas - live further away from CBD/workplace
- Congestion - spending longer commuting

Environmental Forces for Change

- Environment and pollution urgency
- Ministerial forum on vehicle emissions in response to air quality concerns

Pressures on Victorians:

- Cost of living and wages growth
- Community and transportation safety concerns
- Environmental and health concerns

Challenges for Victoria's industry:

- Increased costs
- Optimising opportunities and costs

Challenges for Victoria's Government:

- Being agile to provide a quick response to address pressures/challenges
- Meeting community expectations: safety, congestion, pollution)
- Maintain and grow revenue

Victoria faces unprecedented population, transport, safety and air quality pressures, particularly in Melbourne

2% p.a. population growth, Melbourne-centric	• 240k-320k new driving age residents in 2016 due to overseas migration
[Record] Melbourne road development projects	• Record investment of \$7b in FY17 and \$2b in FY18
Transport development?	• [10] major road development projects and [52] level crossing replacements underway
Road infrastructure unable to solve for future growth	• 49 Metro and 150 rail developments
Emerging new vehicle ownership models	• Creating major road congestion, including in CBD
Emerging new vehicle technologies	• Arterial road development capped by mid 2030s
Environment and pollution urgency	• Sprawling urban areas, not co-located with employment
Regional and rural road conditions	• Doubling of the road maintenance budget
	• Divorces vehicle from licence e.g. carshare
	• Deep implications for regulating network access and ensuring safety
	• Autonomous vehicles as early as [2020]
	• Phasing out of petrol/diesel vehicles as early as 2040
	• Ministerial forum on vehicle emissions in response to air quality concerns
	• Nov 2016 parliamentary enquiry into VR management of country roads

Unprecedented pressures on Victoria's people

- Increased complexity of mobility needs
 - Geographical dislocation of work from home
 - Melbourne urban limits expanding
 - Language diversity
- Melbourne inner city density grew 33% to 4000 people/km2 in 10 years
- Melbourne congestion worst in Australia
- Cost of living and wages growth concerns
- Community and transport safety concerns
- Environmental and health concerns

Challenges for Victoria's industry

- Congestion creates business cost
- Optimising opportunities and costs from adapting to structural changes (technology, congestion, environment)

New challenges for Victoria's Government

- Addressing road and transport system pressure quickly
 - Investment and infrastructure lead time
 - Mobilising new transport agencies
- Dissociation of vehicle and driver
- Meeting community expectations on safety, congestion, pollution
- Match identity assurance and privacy by design standards of NSW, Qld and SA to prevent fraud targeting
- Maintain and grow \$4b R&L revenue stream in face on structural change and contain road maintenance costs
- Next generation initiatives to address pollution and congestion



Visit to Northern Region – 12 and 13 September, 2018

A party of 14 people ventured north from Melbourne to Bendigo. We were welcomed by the Regional Director, Brian Westley, and he and Nigel Powers and Mark Simons briefed us on current projects and issues in the region.

Brian explained that Regional Roads Victoria had just commenced operation. He also had good news on the road safety front. On the current figures, the number of lives lost to car crashes is 40 fewer than at the same time last year despite the fact that there are 2,000 more vehicles being registered in Victoria every week. There are 22 per cent more vehicles on the road since 2008. Other good news was the injection of additional funds of \$941 million dedicated to road maintenance. As a result of this, rehabilitation in Northern Region has doubled since last year.

Nigel discussed the design and construction of the Ravenswood Interchange which opened recently. It comprises a large diameter rotary elevated road over the Calder Freeway. It is a single lane and operates one way. Local roads connect to the rotary road. An artist's impression of the interchange is shown below.



Nigel also described progress on the new crossing of the Murray River at Echuca/Moama. An alignment has at last been agreed between the two states. The newly created Major Road Projects Authority (MRPA) is delivering this project.

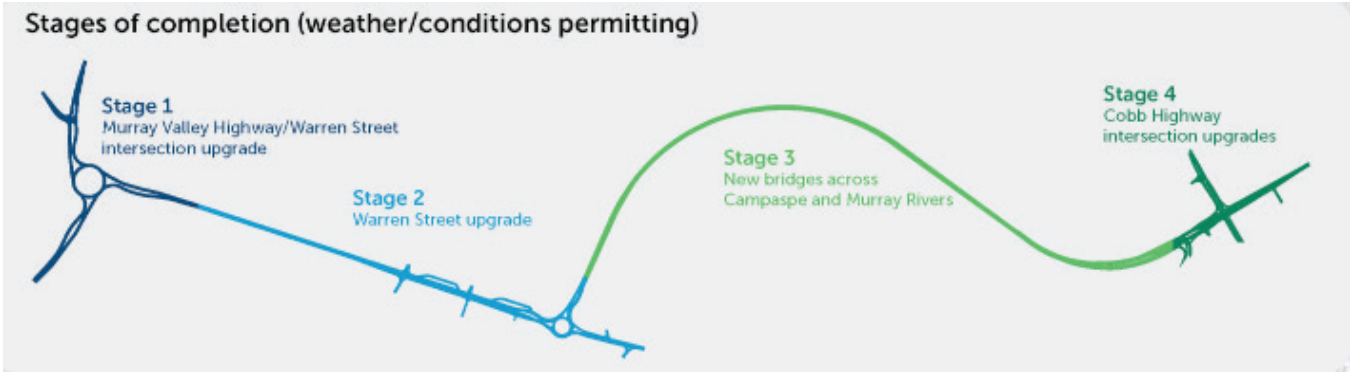
MRPA is the new Administrative Office under the Office of the Coordinator-General and began operations on 1 July 2018. As part of the creation of the Major Road Projects Authority, the delivery of major road projects that were previously being delivered by the Major Projects Division of VicRoads has been transferred to the new Authority. This change comes in an effort to bring a more integrated approach to project delivery across the broader Victorian transport portfolio.

VicRoads continues to have a central role in the Victorian transport network through operating and maintaining a high performing metro, suburban and country road network, its critical registration and licensing functions, and assisting Transport for Victoria with road system planning.

The Echuca-Moama Bridge Project will be built in four stages as follows:

- Murray Valley Highway and Warren Street roundabout
- Warren Street upgrades
- New road bridges over the Campaspe and Murray Rivers
- Upgrades to the Cobb Highway, Meninya Street and Perricoota Road intersections.

Stage 1 of the works is well advanced and will be completed soon.



Mark briefed us on the upgrade of Napier Street and we later visited the site. In my view this is a great improvement. Napier Street was a rather run down two lane carriageway through an urban area with overhead lines but now it has been converted to two lanes each way with all overhead services buried and an attractive landscape treatment. It extends for quite a distance and it is a vast improvement to the urban fabric.

During the afternoon we visited Ceramet's solar plant at Bridgewater. The site produces electricity for the grid using a number of different solar system technologies and it runs itself almost automatically. Following this very interesting visit we decided to drive into Bridgewater at around 4.30 pm to see if we could find a cup of coffee. We pulled up at a bakery which had emblazoned on the window THE BEST VANILLA SLICES IN AUSTRALIA. Some of us scoffed at this claim but we all bought vanilla slices and I can tell you this was no idle boast. They had won that title in 2017 so if ever you are heading up the Calder take it from our party – these are seriously good vanilla slices.





Some of the images taken at Ceramet Solar Plant.

That night we had an excellent dinner the National Hotel. It was great to see Tom Glazebrook there in good spirits as well as Trevor Phillips. They send their best wishes to all our members and colleagues. My only concern on the night was Graeme Stone. He had decided to come up to Bendigo just for the first day. In fact he brought his bicycle with him and, after returning from Bridgewater he decided to ride to the station to get the next train to Melbourne. But once he got to the station he decided he might as well stay for dinner so we were all surprised when he turned up at the pub. I am pleased to report that he caught the 10.30 pm train back.

The following morning we all followed the tram track to what was once the ordnance factory in Bendigo. I might be wrong but I think that something like 4,500 people worked there in its heyday – and no doubt most of them travelled there by tram. It is now owned by Thales (pronounced Tallus) – a French Group that designs and builds defence products and systems.

Thales is named after a Greek philosopher. In Bendigo, Thales Australia is building armoured troop carriers and trailers for the Australian Defence Force. They have been awarded a \$1.3 billion contract to provide 1100 vehicles and over 1000 trailers over three and a half years.

The vehicle is fully Australian designed and built although components are manufactured and delivered from all over the world. The vehicle is known as Hawkei (pronounced hawk eye) and it is a second generation of the earlier (and slightly larger) Thales Australia produced Bushmaster. The two names are derived from highly venomous Queensland snakes.

The Hawkei is a light 4 x 4 protected mobility vehicle originally designed to meet an Australian Defence Force (ADF) requirement for a light armoured patrol vehicle. The Hawkei is a highly mobile, highly protected, 7-tonne vehicle, with in-built systems to allow it to be used as a fighting platform. It has been developed with Vehicle Electronic Architecture to be mission system ready.



The Hawkei

The Design Manager, Mark Brennan, described the design principles of Hawkei – where preservation of life of the occupants under attack was the highest design priority. No lives have been lost in the Bushmaster and Hawkei in hostile theatres. We saw videos of vehicles driving over land mines and the vehicle's response to such trauma.

The assembly line comprised about a dozen stations and the attention to quality was amazing. About 450 people are employed at the Bendigo factory all of them highly skilled. It was also pleasing to see a strong contingent of women working on the line. Every process is broken down into minute detail and timed. When a particular process falls behind its designated time a red screen appears on a master monitor and other people join the team to work out the problem and correct the deficiency. Each station has a team and I did not get the impression that this was a boring, repetitive assembly routine. In thanking Mark at the end of the visit I said that it was a privilege to visit the factory and it made me proud that it was a world-class Australian designed and built product.



The group standing in front of a Hawkei.

All of us agreed that this was the most interesting visit of all our trips to our regional centres.

News from our members

Gary Edwards

Jim Webber received the following note from Gary.

Hi Jim. Hope all is well with you and Kay. We would have liked to have gone to Bendigo for the tour but I have an important meeting in Wangaratta on Wednesday night with our N.E. Engineers Australia group. I am on the committee.

Heather and I had a great trip to Norway and the other Scandinavian countries returning on August 3rd. I caught up with Stan Hodgson again last Monday for my father's 103rd birthday at the nursing home in Burwood. There was a group from the Uniting Church there for afternoon tea. Dad used to attend the monthly mens' afternoon run by Stan – up until he was 100. Stan also coordinates a walking group at the church. He and Lois are well.

Say hello to the group for me and I hope you all have a good tour. **Gary.**

Kelvin York

Kelvin wrote the following letter to the Weekly Times in response to an article about the condition of country roads.

'I read with interest the article in your edition of 29th August 2018 regarding pot-holed highways. The article shone the spotlight, probably unintentionally, on the root cause of the poor state of rural roads. Shoddy initial construction is the cause, not lack of maintenance. It is scandalous that the overtaking lane referenced in the article is in such poor condition after only four or five years. A well-constructed pavement should have a minimum service life of at least twenty years, with minimal maintenance.

The Country Roads Board (CRB), established in 1913, was renowned internationally as a centre of engineering excellence. In 1983 its name was changed, sensibly, to the Road Construction Authority to better reflect its responsibility for urban and rural roads. In 1989 it was, very unwisely, amalgamated with the Road Traffic Authority, whose responsibility had been in the area of registration and licensing, to form the Roads Corporation, trading as VicRoads. The functions of the amalgamating-authorities were very disparate, and led to a diminishing focus on road and bridge construction, and to a deskilling of the workforce.

The CRB and, in its early years, VicRoads put considerable effort and expertise in to ensuring that road and bridge design and construction were carried to a standard which would guarantee satisfactory performance. Whether the work was carried out by direct labour or contract, all materials and work were tested by the CRB and VicRoads to ensure that specified requirements had been met.

There was a central laboratory in Melbourne, and regional laboratories in Bairnsdale, Ballarat, Benalla, Bendigo, Geelong, Horsham, Traralgon and Warrnambool. Dedicated temporary laboratories were set up on major freeway projects.

The materials tested included steel, concrete, bitumen, asphalt, soils, gravels, crushed-rock products, roadmarking paints, and reflective-sign materials.

Roadworks were tested to ensure that the specified levels of compaction were achieved in the pavement layers. Testing was also carried out on in-situ materials for the purposes of pavement and foundation design. All these services were also provided to municipalities for any state-funded works undertaken by them. At their peak, about two hundred engineers, scientists, technicians and clerks of works were employed in these laboratories.

In the 1990s, the cost of this testing was seen by the State government as a waste of money rather than a wise investment. In the name of so-called quality assurance, the responsibility for testing was given to the contracting industry in the form of self-regulation. The folly of that change is now evident throughout the State.

Setting up a new branch within VicRoads and spending billions of dollars on maintenance works will be like sending money down the drain unless measures are taken to ensure that all new construction is carried to the correct standard. It will simply treat the symptom but continue to ignore the disease. There should be a return to a dedicated Road Construction Authority.

With regard to problems with the current maintenance practice, some years it was decided that maintenance would be done by contract rather than by the long-standing practice of using VicRoads' direct labour force. Previous to this, patrol depots were strategically placed around the State, and the patrolmen resided in the local community. The patrolmen took great pride in maintaining their sections of road, and any deficiencies would be brought quickly to their notice by the community.

Maintenance by contractors is ineffective and inefficient. It is very difficult to specify intervention levels for maintenance, e.g. how wide and long must a crack be, how deep must a pothole be, how much damage to a road-sign is acceptable. It is even more difficult to monitor that the specified levels are being observed. It is said that a stitch in time saves nine, but in the case of road maintenance it saves many times nine. A small crack in the pavement surfacing is of no consequence if it is promptly sealed. If, however, it is allowed to remain, water will enter the pavement, and weaken the pavement material and the subgrade, leading to pavement distress, which will require costly remediation.

I write this having spent forty-one years in civil construction, the first thirty-four in the CRB and VicRoads.'

Max Lay

Max wrote to me to say he has just completed another book. This is what he said.

'Over the last few years I have been writing a book about all the amazing transport changes which occurred during the 19th century and subsequently became our transport heritage. I am pleased that I have completed the book to my satisfaction and that an excellent British publishing house, Cambridge Scholars Publishing, agreed to publish it. The book is 370 pages long and has many contemporary illustrations. It is now available from the publisher.

I was led to write this book as I prepared and presented an international review paper on the factors that had influenced road development in the 20th century. I drew somewhat glibly on the 19th century legacy that provided the basis for most of those 20th century events. The question that increasingly came to my mind was how that creative 19th century legacy had arisen? What a story there might be to uncover and to use to shed more light on our transport inheritance – where did all the 19th century's key transport features come from and why are there so many inventions, innovations, inconsistencies and illogicalities in the story? Hence this book, which is my attempt to understand the origins of much of our current transport world. I wrote it as an engineer specialising in transport and certainly not as an historian additionally steeped in matters of economics, or politics or social structures. There were many great and fundamental changes occurring during the 19th century and my transport specialisation was just one sub-set of those changes. It is appropriate therefore for me to use the words of a leading English historian – Kitson Clark – to provide a broader context for my story. He described events of the 19th century as *"a larger movement in history ... which went on throughout the 19th century ... and which swept through human affairs and carried away the ancient régime with its aristocracies, its hereditary monarchies, its prescriptive rights and left in its stead a world whose values, on the whole, we still accept."* I have written the book in my hometown of Melbourne, Australia. Melbourne was not founded until the mid-1830s so I can view the 19th century without a strong parochial view. Indeed, my self-assigned task was to take a world view of 19th century transport changes.'

He attached a copy of the book's cover and an order form. If you order online, the book costs £55 plus postage which is a comparable price to other books of this type on the lists of British publishers.

Max would be pleased to know of someone who might like to write a review of the book in which case he could supply a review copy. His other books continue to sell well, particularly *Ways of the World* despite it being unchanged since 1992 – the benefits of print on demand!

The blurb on the book, which is called *The Harnessing of Power: How 19th Century Transport Innovators Transformed the Way the World Operates*, says:

The book examines how the 19th century's transport legacy of bicycles, trains, ocean-going steamers, trucks, trams, buses and cars arose, creating numerous new technologies and markets. Nothing like this range of transport changes had occurred before, and the 20th century changes were incremental compared with those of the 19th century. The book explores where the key transport features came from and why there were so many inventions, innovations and inconsistencies. The Industrial Revolution was a key part of the process as it had strong links with transport developments. The book adopts a broad, global perspective, but initially has a strong British focus as the Revolution was a process predominantly initiated and implemented in Britain. Nevertheless, when it lost momentum, Britain began to lose its leadership. By century's end France and south-western Germany were the dominant change-makers and the USA was appearing on the horizon. The book also highlights the many inventors and entrepreneurs who caused the dramatic transport changes and notes that they did this predominantly through individual initiatives to satisfy personal rather than corporate or national goals and that they were often hindered rather than aided by officialdom.

Published in 2018 by Cambridge Scholars Publishing, Lady Stephenson Library, Newcastle upon Tyne, England

mmlay@bigpond.net.au

Ian Goldie on Traralgon Division and Tom Russell.



Ian sent me these recollections about working in Traralgon Division in 1954 where he worked with Tom Russell.

'My brother in-law Doug Watts, worked in the Traralgon Divisional Workshop under Hayden Brayshaw and Paddy Byrnes. When I told him how many hours I was working for seven pounds and ten shillings per week he suggested that I try the CRB. I was working 66 Hours. The rate was one pound, nineteen shillings and six pence.

I reported to Tom Russell on a Monday late November at the workshop. Tom attended the workshop every Monday to see what the workshop had done the previous week and to give instructions for the coming week.

Tom gave me the OK to start in the workshop on the 11th January 1955; I always said it was so he didn't have to pay me Christmas holiday pay, but when I told him this many years later he said "Rubbish".

Jumping on a few years later, at times I drove the crane, just like everyone else in the depot did. There were no crane licenses then but I cannot remember any crane accident. Our crane at the time was an old Massey Harris, with a capacity of two tons. It looked a bit shabby so I thought I might just spruce it up a bit.



It had a fluted bonnet like a Vauxhall and a 1938 Oldsmobile front radiator grill so I painted those items white and I put a 3/8 inch piece of rod up the back with a fox tail on it. That was all the go for teenagers in the 1950s. Tom came into the depot and nearly fainted. "Get that bloody tail off there and let our painters do the painting Goldie. No more cranes for you for a while."

At lunch we played kick to kick football on the lawn. The office broke for lunch a half hour after us and Tom would come out the door flying to take a mark and knocking one or two of us over. He miskicked the ball one day and broke the big security light on the corner of the workshop. He said, "I have to go now. Harkins (overseer) why did you do that?" He later told Hayden the truth.

At Christmas we had sports as well as the childrens' presents, a Christmas tree and afternoon tea for the ladies. My job was afternoon tea for the ladies. I still have a thank you letter from Mavis Wurm (the Divisional Engineer's typist and Jack Ryan's wife) for the job that I did over many years looking after the afternoon tea.

Part of the sports was a duel between Tom and Paddy Byrne over 50 Yards. One year Tom slipped over and they had to have a rematch. It must have got Tom's adrenalin going because he streeed Paddy the second time around. I have a photo of the fall.

Tom was no small chap as you would know, but would you believe his private car was a Ford Prefect. How he got in and out of it was a miracle.

At this particular time Tom was the youngest Assistant Divisional Engineer in Victoria at 28 years of age; Frank Docking was the Divisional Engineer. Frank, Tom, Tony Valeno (instructor/driver) and Trevor Palmer (BST tanker driver) all worked on the North /South Highway during the war. And they all worked in the Traralgon Division.

Tom wasn't just an Engineer. He was an Overseer, a Road Master, and a Plant Operator. He could talk the talk and if needed could do any of those jobs. I heard him tell a plant operator to get off and let him have a go on one occasion when I was servicing the plant.

Doug Watts (later the Kew Service Station Manager) and I were sent up to Glenmaggie Weir one Saturday morning to work on the dozer that had broken down up there at the camp. The camp was right on the edge of the water. When we had finished our repairs we thought it would be great to drive down the dry river bed to the old Township of Glenmaggie that had been flooded when they built the weir, the weir was dry because of drought, one of the few times that Glenmaggie had been completely dry.

We started out well, no wet areas but a lot of loose stone and the ute was heavy because of the welder and gas bottles. We get bogged. Doug told me to go back and get the crane - a small International with a W6 engine. I bogged that so I went back and got a grader - and bogged that too. We weren't game enough to get a bulldozer and in any case we had no rope. We rang Paddy Byrne (Workshop Foreman Bairnsdale) who had to come up and get us on the following Monday using a stack of wire rope and the HD16 dozer to pull everything out. To make a long story short, Doug got suspended for two weeks on no pay and had to live with my sister for those two weeks. I didn't show my nose at their house for some time.'



News from Vicroads

New Chief Executive – Michael Malouf

Geelong businessman and former Melbourne City Council CEO, Michael Malouf has joined VicRoads as its Chief Executive.

Mr Malouf will lead VicRoads as it embarks on significant changes to the organization and refocuses on road maintenance as a core function. With more than a decade of experience in local council, including the CEO of Wyndham City Council and the City of Greater Geelong, Mr Malouf has an insight into how important roads are to local communities, transport and the economy.

He was also Chairman of the Kardinia Park Stadium Trust and Chief Executive of the Carlton Football Club.

He said, "Customers and community come first, and I believe VicRoads is focused on getting it right for the people who interact with them every day – whether it be through registration and licencing or as part of their daily commute.

"No one likes getting stuck in traffic, and I'm excited to be here as VicRoads moves forward to create a smarter, safer and more reliable road network. As the population continues to grow, we have to look at new ways to keep people connected, and that's what we'll be doing."

Mr Malouf sees the complexity of managing such a vast network of roads and assets as a challenge, and says he's passionate about roads and road safety. "I've spent many years working alongside VicRoads as a civil engineer. I understand where VicRoads has come from and the challenges the organisation has faced. I'm joining VicRoads at an exciting time. With the recent investment in maintenance we can improve many vital roads, making them safer for the people who drive them every day."

Mr Malouf brings with him a wealth of experience from a range of industries. He has previously worked as the Managing Director of Barwon Water, Director of Southern West Water and runs a successful management services company.

Outgoing Acting Chief Executive Kerry Thompson led VicRoads through a period of unprecedented transformation, including the establishment of Regional Roads Victoria – which is set to overhaul the way regional roads are managed and maintained.

Mr Malouf commenced his duties on 30 July 2018.



Michael Malouf



New Chief Regional Roads Officer – Paul Northey

Paul Northey has been appointed as the Chief Regional Roads Officer for Regional Roads Victoria (RRV).

Paul is an engineer who has extensive experience delivering essential infrastructure services, and has a great understanding of the critical importance of a reliable and safe road network to regional Victorians.

He spent the last few decades in water infrastructure across regional Victoria, and is extremely well placed to lead this new division with experience working across delivery, capital improvements, commercial, procurement, strategy and planning.

Paul joined VicRoads on 10 September to coincide with the launch of RRV. He will oversee the delivery of over \$900 million in regional investment, and will drive the engagement with regional Victorians to ensure their views are represented.

Originally from Melbourne, Paul moved to regional Victoria after graduating with a degree in engineering and an MBA. He will commute from Geelong to the RRV head office in Ballarat. Having lived in regional Victoria for around 30 years, he knows first-hand how critical safe and reliable roads are to the livelihood and productivity of regional communities. "I'm looking forward to visiting communities across the state to talk about RRV, and to learn more about their priorities as we upgrade the regional road network," Paul said.



Paul Northey

Trivia and didactic whimsies

John Wright's Odyssey (Continued)

Our new home in Port Moresby

Of the two downstairs flats, one was occupied by the other draftsman, Ric, his wife Wendy, and their baby daughter. The other one was ours - and a stunning contrast to the Manager's flat. It was very small with a kitchen/lounge separated from a single bedroom by a small bathroom/toilet. Its yellow-painted concrete floor was partly covered with disintegrating lino, which James quickly discovered and commenced chewing. The kitchen equipment consisted of a refrigerator, an electric jug, a toaster and an old, electric bench oven that had seen its best days. There was no air conditioning or telephone. We were exhausted, crushed by the oppressive humidity and felt terribly let down. Sylvia was close to tears and told me she wanted to go home on the next plane.

Ted's wife Pam kindly provided milk and bread and Ted dropped us off in the centre of town outside the Burns Philp Emporium to purchase any extras we might need. Burns Philp's central store was amazing. It was an old building with a large display area (small by today's Costco standards, however) filled with imported goods - most of which we had never encountered in Australian mainland stores, and we spent quite a bit of time marvelling at it all. Above us in the high ceiling, a huge pivoting horizontal panel was slowly moving back and forth, driven by pulleys from an unseen source to create a breeze to relieve the oppressive humidity.

Walking outside we saw a native woman sitting on the footpath beside the open drain under a huge Morton Bay fig tree. She had an infant attached to one of her heavily tattooed breasts, and the whites of her eyes and her teeth were blood red as if somebody had just smashed her in the mouth. She was spooning white powder into her mouth from a large, metal Peak Frean biscuit tin. We later discovered that she was chewing betel nut, a mild narcotic that coloured everything bright red. The white powder was lime, which was apparently a necessary adjunct to chewing the acidic betel nut. We were to see this sight countless times in the years to come.

Crossing the road, we were delighted to encounter a friend we had met in Brisbane, Alan Marsh, who had come into Port Moresby from Sogeri, where he worked as a stock inspector, to buy groceries. Alan was a very nice guy in his 30s from Kent, a happy bachelor with a sparkling sense of humour and was to be our closest friend and mentor during our stay.



When Ted dropped us off he suggested we catch a bus along Ela Beach to return to our flat, and we did so. We were the only white people on it, and everybody was staring at us. We also realised that the local folk smelled very badly - probably from the popular custom of rubbing pig fat into their hair. It was to be our first and last bus ride in Port Moresby.

It was early afternoon and we were all exhausted and quickly fell asleep. I was awakened by two thunderous reports that sounded like cannons being fired just outside. It was late afternoon, and an enormous thunder cloud towered over us. Sylvia was already awake and talking to Wendy Wood from the adjoining flat. Wendy and her husband Rick offered to drive us to the Boroko Shopping Centre, which was open at night and located about halfway back to the Airport.

Settling in

Hausebois and Pigeon English

The unit had no laundry and we quickly discovered that this activity was carried out by native servants, called hausbois, who lived in a makeshift hut at the bottom of the hill below the units. We were introduced to our servant (whose name I have now forgotten - but he had the most amazing bloodshot eyes) by Ted and told that we would be required to pay him £3 a week for his services. In addition to washing, the hausbois washed and tidied up after meals, and dusted and cleaned.

Our man was from a village on the north coast of New Guinea, which was mainly that part of the island north of the Owen Stanley Ranges and which at that time was a United Nations Trust Territory under the stewardship of Australia. Along with New Britain and New Ireland, it had been a German colony until the end of WW1, when it was annexed by Queensland on behalf of the Commonwealth as a prize of war. We were to learn that all the hausbois in Papua came from New Guinea and that the reverse applied in New Guinea. We also discovered that the same practice applied to native members of the Police and the Army, and that it was aimed at preventing fraternisation with the locals. It was surprisingly effective, we were told.

We also discovered that virtually every village in New Guinea had its own language and that the only way people from different New Guinea villages could converse was via Pigeon English. More importantly, people who came from the same village regarded each other as 'wantoks' (one-talks) and were obliged to offer fellow villagers all care and consideration in expatriate situations. All the hausbois at our complex were wantoks from the same New Guinea village. I was surprised at how black our man's skin was. By comparison, the Papuan natives were more brown-skinned and spoke a single language, Motu, rather than Pigeon, which I suspected they despised. We had very little contact with Papuans while we were there.

We had to learn Pigeon, quickly. Our first challenge came when our hauseboi complained about the 'pek pek' in the washing we had sent down. Mystified, we consulted with Ted and discovered that he was upset about finding James' poo in the nappies he was washing and wanted us to make sure that we removed it in the future before we sent it down for washing.

We found Pigeon fairly easy to master. "Wonem yu?" is "What is your name?" The word "long" cropped up in almost every sentence. It variously meant 'from' or 'via' or 'to do with' or 'how you travelled' depending on context. There were some traps for the unwary, however. Bokis bilong Master means master's suitcase. Bokis bilong missus, however, meant something entirely different. Similarly, the word susu could mean either milk or breast, depending on the context. Kisim had nothing to do with kissing - it meant 'get'.



There was a funny story about an expatriate lady who had been in the territory for about a year and was entertaining some newly arrived guests from the mainland. They were having afternoon tea and she decided to show off her Pigeon language skills by asking the hauseboi to bring a jug of milk for the tea. She said: "Kisim bokis bilong susu" The hauseboi looked thunderstruck, so she repeated the request. He vanished inside and came out with her brassiere. In this case, it was the hausboi's fault because he should have known that the correct pigeon name for a bra was "Banis bilong susu" meaning 'Fence for the breast'.

There was no television in Port Moresby, although some well-off folk living high up on the hillsides were able to occasionally pick up TV programs from Cairns when the conditions were just right. The evening ABC news on the radio was always entertaining. Firstly, there would be the news in English followed by News in simple English, followed by "News bilong yumi" (Pigeon English) followed by News in Motu, the local Papuan language. The Pigeon news often sounded amusing. The Administrator's wife was referred to as "Meri bilong number one Guvman" and somebody being injured was referred to as "buggerimup". "Die" could simply mean 'sleep'. However, "die pinis" (die finish) was something rather more permanent.

Trip to Sogeri

Before we purchased a car, we were able to travel to town or Boroko with Rick or Wendy. Occasionally we caught a taxi - although they still smelled almost as bad as the buses and we felt like we needed full-body biohazard suits to travel in them.

While we were looking for a suitable car, Bob took pity on us and kindly lent us his Zephyr for a weekend, so we arranged to drive up to Sogeri to visit Alan Marsh, who was the Stock Inspector for that area. The winding and slippery gravel road was steep and narrow with sharp bends and vertiginous drops.



The further we went the more terrifying it became. And then the mist came down and I was forced to put my head out the window to see where I was going. Mercifully, nobody was coming from the other way and to our relief, Rouna Falls and its famous hotel emerged from the mist and Alan was there waiting to meet us in his DASF vehicle.

I was later to learn that during WW2 this road had been the main supply route between Port Moresby and the southern end of the Kokoda Track and was traversed by endless truck convoys carrying men, supplies and ammunition. Many truck drivers were killed when brake failure or loss of control sent them plummeting hundreds of feet down into the gorge. Perversely, drivers were under threat of Court Martial if they were caught using their gears instead of their brakes - because replacement brake linings were plentiful whereas gear boxes were not.

Sogeri was officially regarded in Port Moresby as being in the Highlands because it was in the high southern foothills of the mighty Owen Stanley Ranges that reached an elevation of nearly 12,000 feet not that much further on. The area more commonly known as the Highlands is in New Guinea around Goroka and Mt Hagen. Consequently, Sogeri's climate was much cooler than Port Moresby's and the rainfall there was far more conducive to cultivation. Port Moresby is the driest part of the entire Papua New Guinea Island, with a rainfall about that of Melbourne falling almost entirely during the 3 months of the wet season. As you drive inland, the rainfall goes up about one inch per mile.

Climbing out of the Gorge we could see that much of the hilly countryside had been cleared for cultivation and beef and dairy operations. Alan's DASF house on a grassy hilltop was huge compared to our flat and up on stilts to capture the breeze. His hauseboi, who took care of his washing and cleaning was also a reasonable cook and prepared us a tasty meal. One of the features we really liked was Alan's Haus Wind, which was a small circular rotunda with a concrete floor and open sides made out of poles and with a thatched roof, containing a table and comfortable chairs. It was wonderful to just sit in it with a cool drink and gaze over the distant hills and the impossibly high, cloud shrouded peak of Mt Victoria in the Owen Stanley Ranges.

We were to have many weekends with Alan at Sogeri. On our first trip there we drove through a vast plantation of rubber trees and visited the famous Ower's Corner, which was the start of the infamous Kokoda Track. It was a wilderness of vines and other jungle plants, marked by a single sign. I tried to imagine what this must have looked like in 1943 when hundreds of our troops were getting ready to walk over it and fight the Japanese Army advancing towards Port Moresby.

To be continued.

Similar work

A Lexus mechanic was removing a cylinder head from the motor of a LS460 when he spotted a well-known cardiac surgeon in his garage. The surgeon was waiting for the service manager to come and take a look at his car when the mechanic shouted across the garage, "Hey Doc, want to take a look at this?"

The cardiac surgeon, a bit surprised, walked over to where the mechanic was working.

The mechanic straightened up, wiped his hands on a rag and asked, "So Doc, look at this engine. I opened its heart, took the valves out, repaired or replaced anything damaged, and then put everything back in, and when I finished, it worked just like new. So how is it that I make \$60,000 a year and you make \$700,000 when you and I are doing basically the same work?"

The cardiac surgeon paused, leant over and whispered to the mechanic

"Try doing it with the engine running."

He can't be everywhere

The children were lined up in the cafeteria of a Catholic elementary school for lunch. At the head of the table was a large pile of apples. The nun made a note, and posted on the apple tray: 'Take only ONE! God is watching.'

Moving further along the lunch line, at the other end of the table was a large pile of chocolate chip cookies.

A child had written a note, 'Take all you want. God is watching the apples....'



A wonderful photograph



This photo shows the reception Amy Johnson received on a flying visit to Geelong in 1930. The aerodrome is located on the Barwon River flats at Belmont.

David Jellie- Editor
pdjellie@hotmail.com

Jim Webber
Secretary VicRoads Association
c/o Natalia Morgan
60 Denmark Street
Kew, Vic 3101

Please complete and return to the Secretary by Wednesday 28th November 2018

Christmas Luncheon

Monday 3rd December 2018 at 12 Noon

I will be attending, accompanied by:

.....
(Please print)

Member's name:

.....
(Please print)

Special dietary requirements, if any:

Please find enclosed a cheque for \$.....

or direct bank transfers should be made to VicRoads Association BSB 083323, Account Number 170934017 and you should include your name as a reference

(The price is \$45.00 per person)