



# The Squeaky Wheel

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*Your MOTAT Society Committee wishes you a Merry Christmas and a Happy New Year. See you in 2021.*

Seasons Greetings from The MOTAT Society.

As everyone is tired of hearing from all quarters, it's been a difficult year for obvious Covid-related reasons. Despite that, we in the MOTAT Society have had a fair degree of success and have built on the platform laid in 2019.

Of note, this month we report the successful holding of our AGM (eventually) after delays caused by repeated Alert Level alterations.

I am pleased to welcome Makyla Curtis to the committee table whilst farewelling outgoing member, Evan James, due to a recent house move and heavy work commitments. Our thanks go out to Evan for his sterling work over many years and we wish him well in his efforts to juggle his new-home set-up, work and the sorting of his collection of ephemera.

Re-elected Committee Members are: John Tutchen, Henry Swan, Alan Curtis, Peter Burch, Leyton Chan, James Duncan, Bruce Wild, Ross Goldsworthy, and Bill Rayner.

As I mentioned, our success continued from last year with the holding of three successful excursions for members - all we could manage due to the Lockdowns and Alert Level changes. These days-out will carry on in 2021 with a list of destinations already planned. Look out for these and do join in. They are free to members and are a great opportunity to visit various heritage-related venues, view interesting objects and seeing the sites. Our most recent trip was a visit to the MOTAT Off-Site Storage Facility, an impressive and enlightening excursion detailed on page four. A look inside the Air NZ 747 simulator with all lights flashing was a pre-trip bonus with the chance to sit in the left seat.

On the formal front we have again participated with RFA in the joint appointment process for new Board members. Following a strained selection procedure due to remote meetings, Zoom calls etc we are very happy to welcome Mr Tupara Morrison to the Board of Trustees of MOTAT. Dr Bruce Hucker continues in an extension of his appointment. In addition we thank Mr Michael Spraggon for his devoted service over his term and wish him well in his new appointment at

Stardome.

As you may have read in the news, Auckland Council have merged RFA and ATEED to form a new entity titled "Auckland Unlimited". We look forward to continuing our relationship with Auckland Council as 2021 unfolds.

Due to the Covid-delayed AGM timing our new committee has postponed the December meeting until late January. The executive will be elected at that time and confirmed to you via our Events & Announcements newsletter.

In the meantime may I take this opportunity to wish all MOTAT Society members a very Merry Christmas and a Happy New Year. We are in the position of being able to celebrate in near normality (an opportunity afforded very few countries worldwide) so make the most of it and we look forward to seeing you in 2021.

*Yours in heritage, John Tutchen  
Chairman, The MOTAT Society.*

## LUSH AWARD WINNER: JOSEPH DICKSON

When Joseph joined the tramway section - actually we enticed him over from the steam/pumphouse during the Peter Fisk era - being a graduate engineer and keen to get stuck into making things we had plenty of tasks to keep him busy on the Wanganui tram trailer. At the time the team was running short on hands and to have a younger person on hand was welcome addition.

He is always inquisitive and keen to improve on ways of carrying out tasks, and also understanding the reason for doing things the way they were done back in the day.

Joseph has picked up a host of new skills including fine cabinet work, and gotten himself actively involved in crewing of the steam tram on live days. More recently he has demonstrated to us the process of 3D printing using his own machine, under guidance from Tony Messenger, allowing us use of those prints for the lost wax casting process for the innumerable bronze fittings that will adorn the tram trailer.

In the past few weeks, on his own volition he even 3D printed a model of the steam tram No. 100 for use as a anniversary gift for another long-serving volunteer.

The team at the tramway wish to thank him for his work to date and in nominating him for the Lush award feel this is a deserved recognition for a young volunteer.





# MOTAT VOLUNTEERS' AUSSIE ADVENTURE

*The third and final installment of the Aussie Adventure made in October 2019 by five of our active Rail/Steam Volunteers with financial assistance from the MOTAT Society and MOTAT.*

## DAY SIX

The day started out a long, three hour drive from Geelong to Bendigo, with a stop off in Malden to visit the Victorian Goldfields railway. There we met Mick and his team, working in their modest depot, stripping a timber bodied carriage for repainting, and performing maintenance on their J class oil fired VR engine. Currently their only operating steam locomotive, it is used for their running days. Its tall stature makes it an imposing engine and the smoke deflectors give it a European character, however the cab is fairly tight for space by comparison to similar NZR locomotives. It is apparently well suited to hauling their 3-4 car trains up and down their 17km line of mixed 1:70 and 1:40 grades. The carriages are also quite interesting and clearly have American and European inspirations to their design. They are very long, with a Pullman car that is a shade under 80' long and the rest around 71'.

Upon our arrival in Bendigo we boarded the first tram available, a popular option based on how full this one was. We travelled the length of the line from the Joss House to the Deborah Mine with a brief stop along the way at the tramway workshops and museum. The workshops are due to be significantly upgraded and expanded to both store the old Melbourne fleet and make it a better tourist attraction. At the Deborah mine we booked in a mine tour and explored the site, looking through the winding house, boiler house, mine buildings, stamper battery and displays. This site has been impressively well preserved and feels very authentic. They also allow you to climb the poppet head for great views over the city.

The mines have 15 or so levels, though only the top ten are kept dry for tours. Our tour was in one of their shallowest levels at only 65m below ground, with the next at 80m and the deepest, Level Nine, at 228m below ground. We had a great guide who was able to explain the mine and its history in a funny and engaging way. As it was a proper mine we were required to wear hard hats, battery belts and mine lamps. Drilling, explosives and loading techniques were demonstrated to give us an idea of the work involved. Both Marty and Alex were drawn into the demonstrations which was a bit of fun. The highlight of the tour was the demonstration of the mucker mine tub loading machine, which runs on compressed air and efficiently scoops the rubble from tunnelling into the wagons. We watched with interest and pondered how we could get MOTAT's example operating to demonstrate it to the public in the same way. This tour was definitely superior to the Sovereign Hill tour as it was a far more authentic mine experience. After the tour ended we spoke at

length with our guide about the mucker and how it was able to operate safely in front of the public every day.

Our last stop was the Daylesford Spa Country Railway. Whilst it was pretty closed up when we visited we were able to appreciate the look and feel of a classic country station, complete with goods shed and full yard. The collection of wagons on display was very interesting to compare with NZ examples and whilst much larger in general than NZ examples, the size of their bodies and loads were comparable with the later NZR wagons.

## DAY SEVEN

First stop ARHS Newport Railway Museum, a static museum established in the 1960s to preserve the quickly disappearing steam locomotives of Victorian Railways. Setting up on a temporary site behind the workshop foundry the collection grew and grew over the years, while also deteriorating out in the open. Fast forward to today and the museum is finally turning things around. A fresh group of volunteers have given some items away and begun constructing shelters on the site to make the best of the present situation, as for the foreseeable future they are unlikely to move.

We saw a range of VR steam locomotives from the 1880s tank engines through to the end of steam. This included the only absolutely massive H class 4-8-4 heavy goods engine, A2 Passenger engines, N, K, D2, 3 & 4 branch engines and a range of early period diesel locomotives. Also present was the earliest suburban motor carriage, a sleeping car, 1930s dining car, vice regal car and a model railway. All in all we got a good tour of a cross section of Victorian Railways history, with a very knowledgeable guide to take us around.

Next we chanced a visit to Steam Rail Victoria, housed in the former VR workshops at Newport. Due to an arson attack a few years ago some of their electric units and carriages were destroyed and the building heavily damaged. They have an impressive

fleet of running carriages, EMUs and steam locomotives with a range of overhauls and restorations underway including some 'red rattler' stock to replace those lost in the attack. The other half of the workshops contains the remains of the old Melbourne tram fleet. These are due to be cleared out in favour of a market or some form of property development.

After dinner we decided to visit the Geelong Vintage Machinery Club and its range of exhibits including a dredge triple expansion steam engine, tractors, wool scouring machines and numerous stationary steam and oil engines. Outside is the remains of a double dumping press used to compress wool bales



*ABOVE: The tourists about to descend 65m down into the Deborah Mine in Bendigo.*

for shipping. This is planned to be set up beside the pump used to power it. A range of other vintage agricultural machinery is also on hand for demonstrations at their scheduled A&P shows.

## DAY EIGHT

Our final day saw our group quite fatigued and we kept our activity plan to a minimum, stopping off in the Melbourne CBD on our way to the airport. After parking up in the closed Queen Victoria Markets we headed towards a shopping mall containing the old shot tower. An impressive building, it comprises a large glass cone enclosing the 50m high brick tower. Similar to the much less impressive one in Auckland it was used to manufacture lead shot ammunition by dropping molten lead from a great height into a pool of water.



We took a short walk to the State Library, a remarkable building from the turn of the last century featuring an impressively proportioned glass domed reading hall. This library also contains exhibitions on the State's history, including the famous Kelly Gang and the story of their rise and eventual demise. Part of this story was an exhibition containing Ned Kelly's armour as well as the remains of a short silent film describing his capture. Afterwards we went off in search of a Melbourne tram to catch to Flinders Street Station and ended up on an old SW tram, packed with tourists like ourselves, and were glad to get off at Federation Square. We then took our last tram ride back to the car to start our long journey home.

**SUMMARY**

All in all I think we learned a lot from this trip and have all probably taken away something different from our experiences. The vintage city at Lake Goldsmith provided inspiration for how we could set up a demonstration steam workshop and more information on how we can maintain, operate and restore MOTAT's road & stationary steam collection. Sovereign Hill showed us how immersive



and authentic a historic village can be, while its demonstrations of craftsmanship were also fascinating and highly educational. Puffing Billy Railway and museum demonstrated what can be achieved when you have a vision and a well organised team. The railway has 100 staff (some part time) and 600-700 active volunteers. In comparison Auckland has about one third of the population of Melbourne and MOTAT Rail has 2 staff and 15-25 active volunteers. Based on this example, with the support of MOTAT staff, we think the MOTAT Rail collection has an opportunity to build a much larger, well organised volunteer team that we could call on for expanded operations, maintenance and restoration work.

- by Alex Smith and Martyn Radford

Part One of our three part MOTAT Volunteers' Aussie Adventure was published in our March issue of Squeaky Wheel Issue, #36 and Part Two in the August Issue, #37.

Left: The preserved 1889 Coop's Shot Tower inside the Melbourne Central mall.

To purchase Driving Wheel or to bid on the Airfix Kitset (Bids close 17 January 2021, 5pm) please contact the administrator at [admin@motatsociety.org.nz](mailto:admin@motatsociety.org.nz). All proceeds will be donated to the Richard Wilson Fundraiser.

# MOTAT ANNUAL REPORT 2019-2020

A copy of the MOTAT Annual Report 2019-2020 was adopted by MOTAT's Board on 19 November 2020 in accordance with the section 25(4) of the MOTAT Act 2000 in order to reduce MOTAT's impact on the environment the Annual Report can be downloaded at the following web link address <https://www.motat.nz/about/corporate/annual-report>.

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# “ T O P G U N ”

Corny title I know but that is what they are, the newly installed (dummy, but very realistic) guns in the rebuilt front turret of our MOTAT Short Sunderland WWII sub hunter and successful search and rescue legend.

The newly fitted turret is as close to perfection as is possible from the viewers perspective, and will become even more menacing when the turret rotation and gun elevation electrical systems are installed, which should be before Christmas. This will

give our visitors yet another exciting opportunity to see some aspects of our aircraft in motion.

The enormous job of restoration and rebuild of the Sunderland front turret (which was once thought to have been lost forever) and its guns has progressed over the last few months with the aviation team, led by Steve Subritzky. The enthusiasm for the project has been so successful that a second turret rebuild is well underway, looking very close to final assembly when all of the restored and

newly made parts are fitted.

The team behind this demanding project is divided into two groups with the mechanical structural side led by Ron Wilson, whose attention to detail is renowned in the aviation restoration world and well beyond the walls of MOTAT, and John Dykes designing and building, from scratch, new electrical complexities of the turret rotation and gun elevation driving mechanism.

- by Henry Swan

BELOW: Front turret.



BELOW: Turret gun mount framework.



BELOW: Turret technicians.



## MOTSOC MEETS M3

Due to the dratted Covid lockdowns and subsequent Alert level yo-yo in Auckland our scheduled itinerary of excursions was somewhat curtailed this past year and so we were delighted to take up MOTAT CEO, Michael Frawley's suggestion to visit the museum's "M3" off-site storage facility sooner than we had planned.

Due to short-notification and the need to visit on a weekday prior to Christmas, a small but eager group of 12 Society Members met at M2 where we had the chance to enter the Air NZ 747 Flight Simulator before boarding our coach for the drive to the secret location - "M3" site of the overflows, un-restoreds, future projects and un-displayed extra "stuff".

Collections Manager, Alba Letts greeted us with an H&S briefing and an informative post-tour discussion, openly answering questions from Society Members. We then moved into a slow and steady wander around the cavernous warehouse, viewing firsthand improvements made to the sorting, cataloguing, preservation and storage of the various objects held by the museum. Much reorganisation has been done since our last visit some two and a half years ago. Textiles, prints and documents are cleaned and stored in climate controlled environs, and many small objects and delicate items have

found safe and secure homes in custom-fitted boxes specifically created for them by the recent purchase of a dedicated box-making machine. This machine is capable of creating specialised boxes with tops or hinged lids, front-opening etc - whatever is needed to safely store small items in comfort, rather than in jumbled plastic bins. The cardboard used is also "special" so as to not damage paper labels and colours etc.



ABOVE: Our tour-party in the Conservation Lab. The Hi-Viz was to ensure some of the older members weren't mistaken for artifacts and subsequently subjected to premature preservation.

Of further interest was the visit upstairs to the rapidly developing Conservation Laboratory. Much microscopic miscellany was evident with many scopes, gloves, fume cabinets, tweezers and bottles of strange smelling solvents etc. The work being done in the Conservation Lab has been a great boost to the care of Collection objects, many of which have sat for years in unkind conditions at the previous off-site, or the notorious GP store. Of particular note was the presence of various bug-traps keeping the area pest-free. There's even a sticky mat to keep dirty footwear from tracking debris into the lab. This welcome new approach to the Collection care is driven by Conservation Manager, Kristie Short-Traxler who must be commended for her effort in dragging standards up, for the benefit of all.

Alba mentioned that public tours are also planned in future which will be revenue-generating, as will the production of storage boxes for other heritage institutions.

Another successful excursion for our members, we plan to return to M3 later in 2021 so as to keep abreast of developments there.

by John Tutchen