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LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways

Light Railway Research Society of Australia Inc.

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Imperial to metric conversions:

1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
1 mile	1.60 kilometres
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1 gallon	4.536 litres
1 cubic yard	0.765 cubic metres
1 super foot (sawn timber)	0.00236 cubic metre

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No 251 October 2016

Contents

Editorial

One of the main aims of the LRRSA is to carry out research into the use of light railways in the development of Australia. Over the years, extensive research has been undertaken by a wide range of individuals that have produced an enormous amount of information published in both this magazine and the several books that the Society has produced.

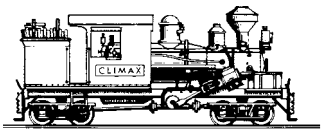
A couple of years ago, at the encouragement of both Scott Gould and Stuart Thyer, I commenced some research into the use of tramways in the construction of a number of dams in Victoria. With no background whatever in research, it was a steep learning curve. What I found was a huge amount of information that is readily available on line, and is also available at libraries. I also found that it is very satisfying being able to find long lost information that varies from small titbits to whole slabs of relevant information. The other resource that has proved invaluable is the many photos that are available on line from State and National Libraries. The photos often show details and aspects that are not written about in newspapers and annual reports. I have been able to prepare a number of articles that will be published in *Light Railways* in the future.

I would encourage anybody who has the slightest interest in a particular light railway to have a go at doing some research. There is a lot of experience and support available within the Society to assist you – you will not be disappointed. As there are no time constraints, you can do it at your leisure and at your own pace.

Go on, give it a try!

Richard Warwick

Front Cover: *A class 3 ft 6 in gauge Shay locomotive (Lima 2135/1909) at the British Australian Timber Company's timber yard at Coffs Harbour c1909. The Coffs Harbour Timber Company acquired the Shay for its Boambee Tramway in March 1915 after the BATCo. closed its Coffs Harbour operation and its big saw mill burnt down in a spectacular blaze in 1915. Photo: NSW State Library, hand tinted Frank Stamford*



Light Railway Research Society of Australia Inc. A14384U
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The Light Railway Research Society of Australia Inc. was formed in 1961 and caters for those interested in all facets of industrial, private, tourist and narrow gauge railways in this country and its offshore territories, past and present.

Members are actively involved in researching light railways in libraries and archives, interviewing knowledgeable first-hand participants and undertaking field work at industrial sites and in forests.

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Articles, letters and photographs of historical and current interest are welcome. Contributions should be double spaced if typed or written. Electronic formats accepted in the common standards.

Material is accepted for publication in *Light Railways* on the proviso that the Society has the right to reprint, with acknowledgement, any material published in Light Railways, or include this material in other Society publications.

The Coffs Harbour Timber Company Limited – Part 1

Nondaville Mill and the Boambee Timber Tramway

by Ian McNeil

Introduction

Some of the richest hardwood eucalypt forests on the NSW North Coast covered the spurs of the Coast Range behind the timber-shipping ports of Coffs Harbour and Woolgoolga. The dominant species was blackbutt, but there was also an abundance of blue and flooded gum, red and white mahogany, bloodwood, tallowwood and ironbark.

By the beginning of the twentieth century, these hardwoods were gaining acceptance overseas as quality alternatives for the well-established Western Australian jarrah timbers. Large markets began to open up for railway sleepers, bridge girders, wharf piles and other heavy structural timbers cut from NSW forests.

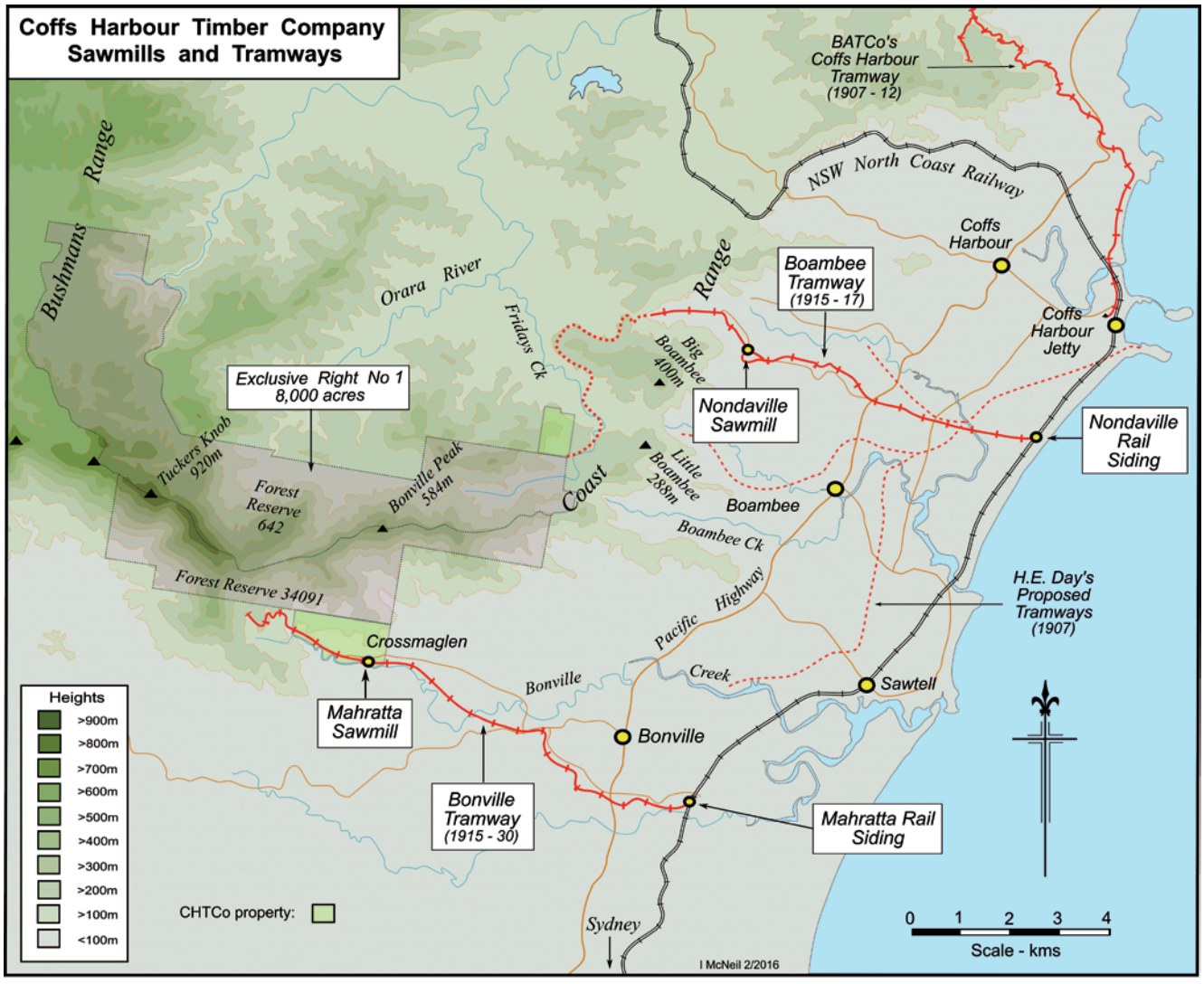
Three big timber companies established themselves in the Coffs Harbour district to supply the demand. The first was the British Australian Timber Company which began constructing large sawmills and timber tramways at Coffs Harbour and Woolgoolga in 1907. The Great Northern Timber Company followed in 1913 and built one of the largest sawmills in the State at Woolgoolga. It was also supplied by a timber tramway.

The third company and the subject of this history was the Coffs Harbour Timber Company (CHTCo) which built sawmills and timber tramways in the Boambee and Bonville Creek valleys south west of Coffs Harbour. The company had far-reaching plans for timber production on a grand scale. Had it not been for the considerable disruptions caused by World War 1, the CHTCo could well have become the largest hardwood producer in NSW.

Henry Edgar Day and the South African Timber Company

Henry Edgar Day was the first entrepreneur to attempt large scale exploitation of the hardwood forests behind Coffs Harbour. Day was an Englishman who had previously worked for the West Australian Government Railways before taking up the position of paymaster for the Emu Bay Railway Company, Tasmania, in the 1890s. In December 1900 he took his new bride to South Africa and began work for an engineering company engaged in mining operations in the Transvaal.[1]

A huge market for imported hardwood timber developed in South Africa after the Boer War. Local government authorities in Cape Colony, Natal, Transvaal and Orange River began expanding their railway systems, undertakings which required hundreds of thousands of railway sleepers.



The Coffs Harbour Timber Company obtained an 8,000 acre Exclusive Right over the Coast Range forests southwest of Coffs Harbour, and built two sawmills and two timber tramways to exploit it.

Day saw an opportunity to import large quantities of Australian hardwoods and in 1903 he returned to Australia to investigate the possibilities. After visiting the principal forest regions of Tasmania, Victoria and NSW, he declared that 'NSW had undoubtedly the finest tracts of timbered lands in Australasia, of great variety and undisputed utility.'[2] He was, however, critical of NSW Government forestry policy which favoured land-clearing for settlement over any husbanding of timber resources. He was also dissatisfied with the fragmented nature of the NSW timber industry. It was dominated by a large number of small sawmills and independent teamsters which, he said, were unable to fill large export contracts.

He proposed to set up an integrated operation capable of processing over one million super-feet of hardwood timber annually. Initially, he said, he would concentrate on exporting sawn hardwood railway sleepers to South Africa. He selected Coffs Harbour as the centre for his timber empire, and proposed the construction of a network of logging tramways, a large sawmill and a private export jetty.

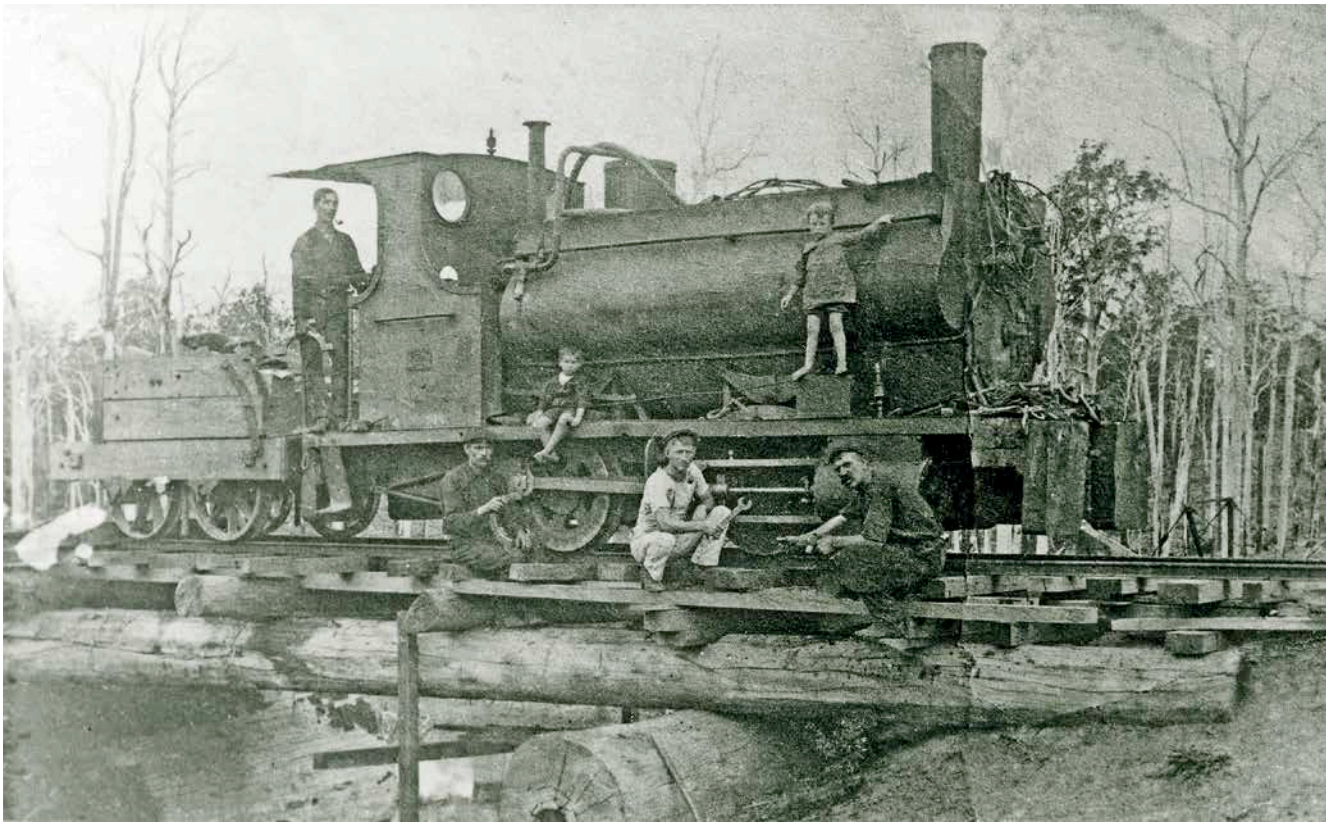
In December 1905 Henry Day applied to the NSW Lands Department to lease Crown Land for a timber depot and an export timber jetty on South Coffs Headland, and also land for the construction of logging tramways into the forests behind Bonville and Boambee.

His first application[3] was for a three mile tramway from Coffs Harbour, passing through what is now Coffs Harbour Regional Airport and heading west towards Coffs Harbour District Hospital in the North Boambee Valley. The second was for a timber depot on South Coffs Headland. The third[4] was for two lines branching off the first tramway; a three-mile line up Boambee Creek and a six-mile line up Bonville Creek.

In March 1906 the local Land Board at Coffs Harbour approved Day's applications, and forwarded its recommendation for approval to the Minister for Lands.[5] Several conditions were attached to the tramway lease approvals. The rights-of-way across Crown Lands were to be surveyed within six months of granting and the survey plans were to be lodged with the Lands Department. Day's representative, Frederick Maskew, came to Coffs Harbour in August 1906 with his engineering surveyor, Mr Cowdery, to begin that task.[6] The proposed tramways also crossed extensive tracts of private property, most of which were still heavily forested. Maskew negotiated timber rights from the various owners and eventually held rights over a wide timber belt extending for over seven miles out from Coffs Harbour.

Day returned to South Africa to promote his scheme and attract investors. He proposed floating the South African Timber Company with a capital of £100,000. According to his partner Maskew, £15,000 of this would be spent constructing the export timber jetty on South Coffs Island at Coffs Harbour. Another £50,000 would go on the saw-milling plant and the timber tramways. Maskew painted an optimistic picture, stating that he and Day held long-term leases and rights giving access to hardwood timber worth £1,000,000. They expected to cut ten million feet of timber annually, principally blackbutt, turpentine, grey gum, red mahogany, blue gum and box. They were assured, he said, of large orders for sleepers and bridge construction as South Africa was spending £100,000 a year on railway sleepers alone. They also hoped to introduce NSW hardwood for the wood-paving of streets in South Africa.[7]

In May 1907 the NSW Department of Lands granted 15-year term Special Leases to Henry Day for his export jetty, timber depot and logging tramways.[8] But that appears to have been as far as Day's grand plans for Coffs Harbour progressed. Nothing further was heard of the South African Timber Company. A brief report two years later mentioned that two local businessmen, Dr Robertson and R D Barry, held an



Ex-Joadja 0-4-0ST Andrew Barclay 237/1881 has been stopped either for repairs or posed for the photographer on a sturdy timber culvert on the Boambee Tramway pre-1917. The makers fitted the locomotive with an additional water tank, seen on top of the saddle-tank, to provide extra boiler water capacity and to counter overheating of water in the saddle tank. The CHTCo added the home-made tender. Photo: J Kramer collection

option for Day's timber proposition and were attempting to raise capital in England to finance it.

The final nail in Day's coffin came in July 1911. The local Land Board reported that the conditions attached to the tramway leases had not been complied with, 'and no attempt whatever had been made to do so.' [9] His Special Leases were declared forfeit two months later.[10]

Exclusive Right No. 1

The passing of the 1909 *NSW Forestry Act*[11] opened the way for large-scale exploitation of hardwood forests in NSW. Section 15 of the Act allowed, for the first time, the granting of exclusive cutting rights in State Forests and timber reserves. It was a radical departure from previous policies under which ordinary timber licences costing 2s 6d were issued to individuals who only had to pay a royalty for each tree they cut on Crown Land. This state of affairs had discouraged companies from investing in timber tramways because they had no legal protection against unscrupulous cutters interfering with their operations.

Alexander Edward Davey Long was one of the first to apply for an Exclusive Right in NSW. He and James Towers Bull ran the Bull and Long real estate agency in Coffs Harbour. Alexander Long formed a syndicate with three other businessmen: Captain James Colvin who commanded coastal steamers for Langley Brothers in the jetty trade between Woolgoolga, Coffs Harbour, Newcastle and Sydney; Alexander James Tuson who was a retired sea captain with local timber interests, and Herbert Louis Barry who was a Sydney solicitor.

The syndicate's application for exclusive rights over 8,000 acres of heavily forested ridge country southwest of Coffs Harbour was lodged with the Bellingen Land Board in April 1910.[12] The area straddled the Coast Range between Tuckers Nob and Big Boambee peaks, and extended into the headwaters of the upper Orara River. Much of it was steep and rugged country, deeply dissected by tributary creeks and difficult to access. It comprised most of Forest Reserve 34091 east of the coast range, and Forest Reserve 642 west of the range. Today these form parts of Tuckers Nob and Orara West State Forests respectively.

The application attracted a great deal of local interest as well as opposition. In accordance with the Act, the Bellingen Land Board held a public hearing in Coffs Harbour Court House on 15 November 1910 to inquire into the application. The Court House was packed, but due to a technical oversight the hearing had to be postponed. It was pointed out that the necessary advertisements had not appeared in the Government Gazette and local newspapers, and plans of the land had not been made available for public exhibition.

These deficiencies were remedied and in January 1911 the Board re-convened at the same venue to enquire into the syndicate's application. The proponents stated that:

> (1) The said area comprises parts of the Main Coast Range and Bushman Range and their lateral spurs, which are all high steep and rugged, and the whole area is difficult to access, internally and externally.
>
> (2) That the getting of timber profitably from the said amended area would entail the construction of a tramway about 7 miles long, from the port of Coffs Harbour by a mountain route to the area by Big Boambi Gap, thence by tramlines on the north and south slopes of the Coast Range, at an estimated cost of £1500 per mile, besides the installation of log-haulers and other machinery within the area. It is estimated that at least 15 months are necessary for the survey and construction of the 7 miles of tramway before cutting operations on the area commenced.[13]

The Bellingen Land Board rejected several objections put forward by local teamsters and saw-millers on the grounds of self-interest. The Lands Department objected to the inclusion of land fronting Bonville Creek which it had earmarked for sub-division. The Board disagreed, saying the land was needed for tramway access and its timber should be marketed instead of being wasted by clearing. The Board recommended that the syndicate's application should be approved, and on 25 May 1911 the Minister for Agriculture, the Hon. J L Trefle MLA, granted Exclusive Right No. 1 to the syndicate for a period of ten years.[14]

Formation of the Coffs Harbour Timber Company Limited

Exclusive Rights came with a number of conditions attached to discourage forest land being taken up by speculators. Work had to be commenced speedily, a minimum number of men were to be employed, a minimum amount of timber was to be cut annually, and a specified minimum amount of capital was to be spent on works and development.

Alexander Long and his fellow syndicate members did not have the necessary capital to develop their Exclusive Right. However syndicate member Herbert Barry had an interest in the Carter & Barry motor car agency in Brisbane. His business partner was Eli Carter, a wealthy grazier who owned sheep stations in Queensland and NSW, and it was to Carter that the syndicate turned for capital.

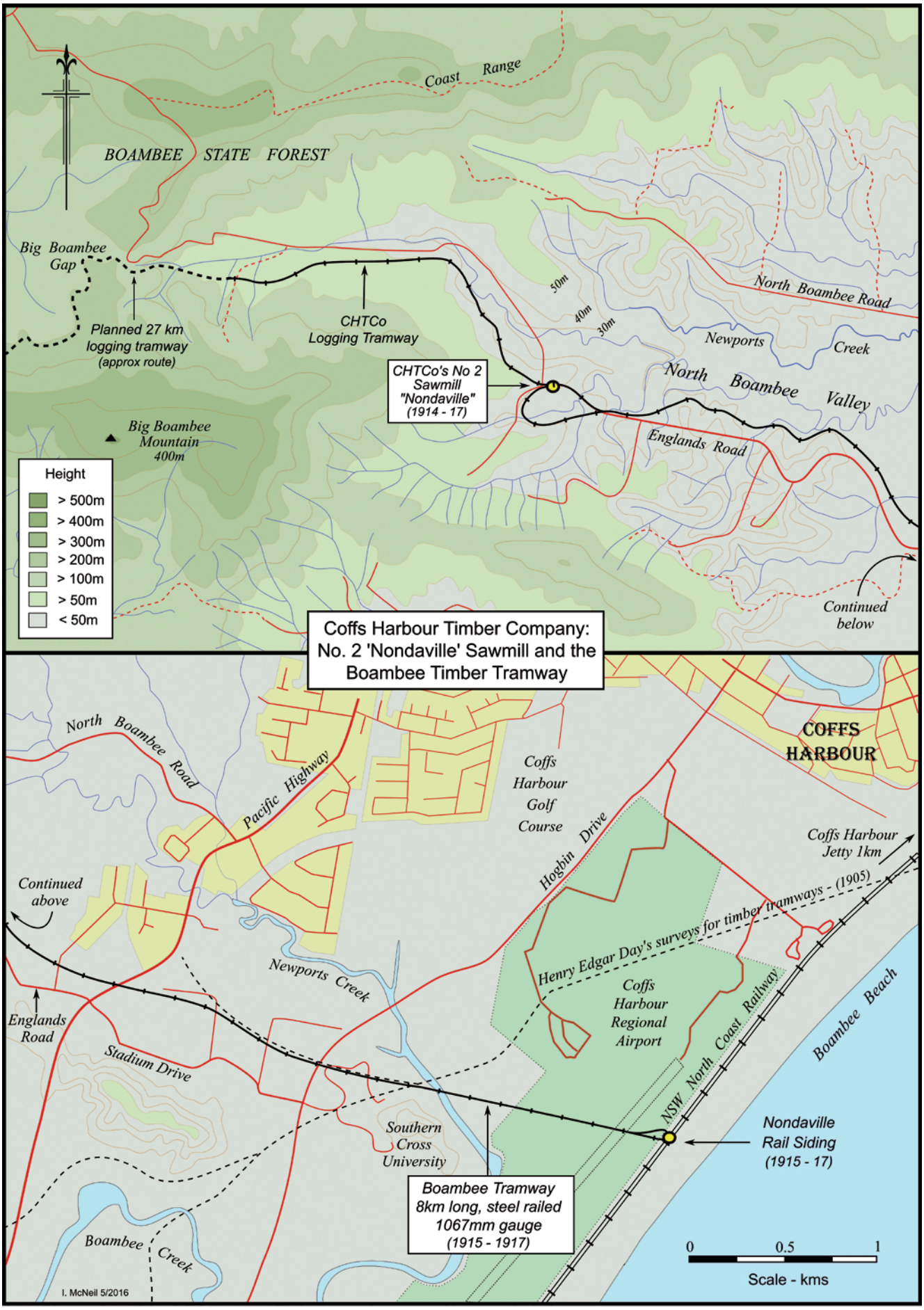
Eli Carter drove a hard bargain, purchasing Exclusive Right No. 1 from the syndicate for £7,500 on extended terms. He set up the Coffs Harbour Timber Company Limited (CHTCo) which was registered in Sydney on the 15 February 1913 with a capital of £100,000 in £1 shares.[15] Carter took up the majority shareholding of 51,246 shares and installed himself as the permanent Chairman of Directors and joint permanent Managing Director. His fellow permanent Managing Director was Gerald Francis Allen, the Managing Director of the well-known Queensland shipping firm of Samuel Allen and Sons. Allen held the remaining 48,747 shares and together he and Carter controlled the company. There were five other Directors on the Board, but they had no real power and they could be dismissed on the joint vote of Carter and Allen.16 In later years it was said of the CHTCo that 'Eli Carter was the Company!' He continued to play a dominant role in the company until his death in July 1927.

The CHTCo set up its head office in Castlereagh House, Castlereagh Street, Sydney, and established a timber depot in Boambee Street, Coffs Harbour Jetty.

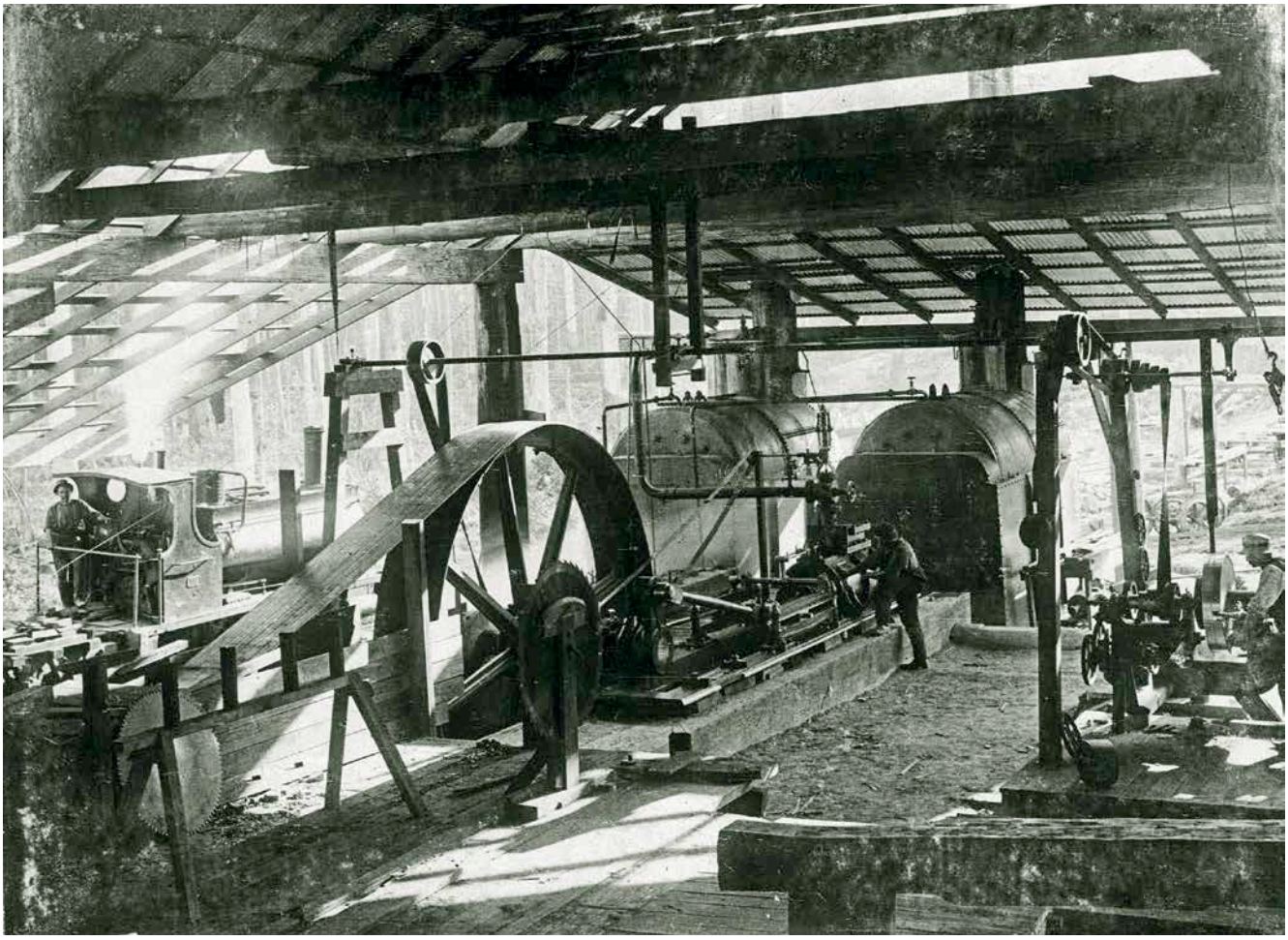
Alexander Clarke Mackay

Arguably the man who was most responsible for the acquisition of all three Exclusive Timber Rights granted in the Coffs Harbour district was Alexander Clarke Mackay. The son of a Scottish doctor, he ran away to sea at an early age and wound up in Melbourne in the early 1880s. He married a Longwarry saw-miller's daughter in 1887, and when his father-in-law died the following year, he took over the business. He was an energetic and capable man, and by the turn of the century he was managing the Australian Seasoned Timber Company's Comet sawmill at Wandong in Victoria. After a disastrous fire destroyed the Comet mill, he moved to the Otway forests where he became Managing Director of the Apollo Bay Timber Company.[17]

Restless by nature and always seeking new horizons, he became a Fellow of the Royal Geographical Society, England, in 1905 and during his long career in Australia and overseas



The CHTCo's five-mile 3ft 6in gauge Boambee Tramway transported sawn timber from its Nondaville saw mill in the North Boambee Valley to its private Nondaville Siding on the NSW North Coast Railway. Only two miles of the planned 17-mile logging tramway were built.



The western interior of Nondaville saw mill showing the twin Woodley Bros' 16 ft. long boilers and the mill's big 240 hp. steam engine. On the left, 0-4-0ST Andrew Barclay (237/1881) lets off steam on the Boambee Tramway beside the sawn timber loading platform.

Photo: NSW State Library

made many contributions to that Society. He moved his family to Coffs Harbour in 1907 to take up the position of General Manager for the British Australian Timber Company. He played a key role in the development of that company's sawmills and timber tramways in Coffs Harbour and Woolgoolga.[18]

Mackay was critical of the NSW Government's forestry policy which he viewed as inefficient and wasteful. He was an accomplished writer and promoted his vision of sustainable forestry practice in newspaper articles and letters to Government Ministers. His philosophy is well demonstrated in this letter sent to the *Sydney Morning Herald* in April 1913:[19]

> In New South Wales we have 7,235,400 acres of land in forest reserves, but under the past and present methods of working it is quite plain to practical men, more especially to those who have had experience in other States, that the hardwood forests of the North Coast, instead of being worked properly, are being spoilt, as fully half the matured timber is left in the bush. Logs are hauled by teamsters anything up to 12 miles or over to the mills erected at the ports, and it stands to reason that only the very best logs in the forest are taken, as it would not pay teamsters to haul logs with only a small quantity of timber in them that distance. Where one good tree is standing there may be, for example, two others alongside it not very good, but those two trees possibly may contain far more timber than the one good one, but they are left alone, as it would not pay the teamster to haul them such a long distance. Again, a tree may be felled, which very often is too large for one drag, but not large enough for two. In a case of this sort the teamster takes what he can pull in one trip and leaves the rest to rot. A half-crown license practically gives a man a roving commission to cut where he likes and leave what he likes. After this sort of thing goes on for a certain time, and the eyes have been picked out of these portions of the forest, it is looked upon by them (who appear to be the sole judges) as cut out, whereas, as a matter of fact; there is far more marketable timber left than has been taken away. This means of working, besides being detrimental to the young forest, prevents anyone going in and working the bush properly, as one would require to have the good with the bad.
>
> It is well known that eucalyptus is a timber which freely reproduces itself, and is always coming on at all stages from the seedling to the matured tree. To work these forests properly the Department should encourage the erecting of mills in the forests, which is absolutely the only way to work them to anything like the best advantage, as it must be quite apparent to anyone that logs that would not pay to haul long distances could profitably be converted into sawn timber right in the bush.
>
> Every tree of any commercial value would be utilised, and the really useless trees should be rung. All this would give the young timber every chance to come on. As certain portions of the forests are worked out in this way, they should be closed down for a time against all operations until sufficient of the timber is again matured. The recuperation will not, however, take as long as may be imagined, as when this closing down takes place a large quantity of the young timber is nearing maturity or the size it can be cut. And as the sawmiller gets further into the timber, that which he leaves behind him is continually growing, until by the time a large reserve has been worked through the portion first operated upon will, with proper management, be in even better condition than it was in the first instance.

The passage of the 1909 *Forestry Act* gave Mackay the opportunity to put his ideas into practice. He was instrumental in enabling his employer, the British Australian Timber Company, to obtain its Exclusive Right No. 2 in the forests west of Woolgoolga. In July 1910 he severed his connection with that company and formed the Mackay Syndicate, which obtained Exclusive Right No. 3 over forest lands he had personally surveyed north-west of Woolgoolga.[20] This Right was subsequently taken up by the Great Northern Timber Company.

But his most ambitious scheme involved Exclusive Right No. 1. He advised the Bonville Syndicate of Tuson, Colvin, Long and Barry which forest areas to apply for, the most efficient methods to work them, and where to site saw mills, logging tramways and outlet tramways.

His plans centred on two modern sawmills located deep in the forest. The smaller No. 1 'Mahratta' Mill, at what is now Crossmaglen, was located at the base of the Coast Range near the foot of Tuckers Nob Mountain. Log haulers and logging tramways were to bring hardwoods off the eastern slopes of the Coast Range to No. 1 Mill. The five-mile Bonville Tramway would take sawn timber to a private siding on the NSW North Coast Railway. Timber would be transferred to the government railway for the eight-mile journey to Coffs Harbour Jetty and loaded onto coastal steamers.

The giant No. 2 'Nondaville' Mill was planned to be one of the largest mills in NSW at the time. It was also to be located at the foot of the Coast Range, but five miles north of No. 1 Mill and under the shadow of Big Boambee Mountain. It was positioned to take timber from the west side of the Coast Range in the Upper Orara River Valley and off the steep spurs of the Bushman's Range further west. A 17 mile logging tramway was planned to cross the Coast Range at Big Boambee Gap and extend along the western flanks of the Coast Range. The five-mile Boambee Tramway would take No. 2 Mill's sawn timber to a private siding on the NSW North Coast Railway for the two-mile journey to Coffs Harbour Jetty.

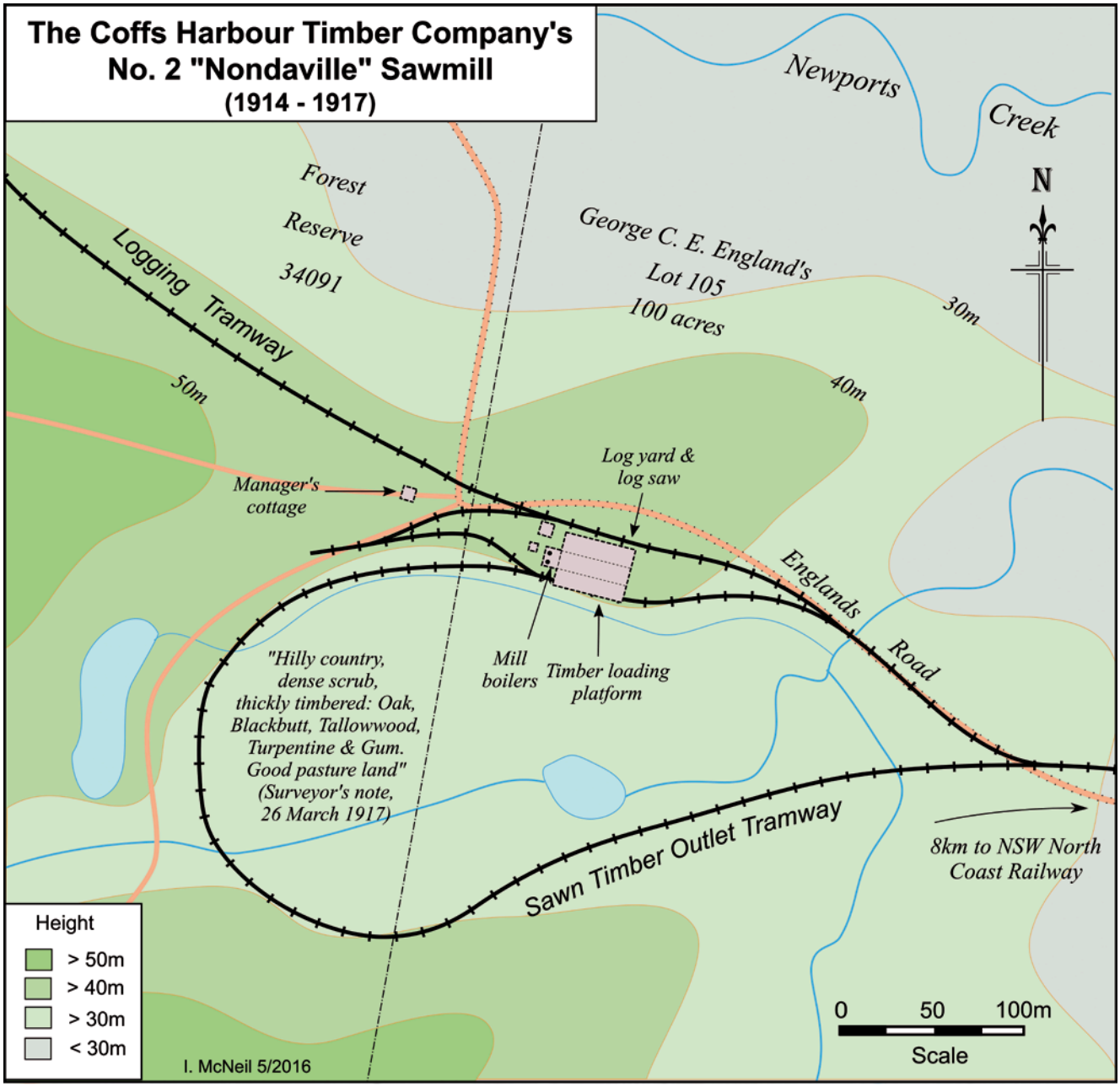
Alexander Mackay was appointed manager of the newly-formed CHTCo in early 1912 and began the task of overseeing the construction of the planned sawmills and timber tramways.[21] He was allotted £32,000 for the job. By the time the seventh section of the NSW North Coast Railway was opened for traffic in August 1915 he had the No. 1 'Maharatta' and the No. 2 'Nondaville' Mills in operation, and had completed both the Bonville and Boambee Tramways.

The First World War put an end to the company's big development plans. Mackay wanted more out of life than the day-to-day routine of saw mill management and he resigned from the CHTCo in early 1916. He took a position with Norton Griffiths and Company as supervising engineer for the construction of the difficult Ashton section of the Glenreagh to Dorrigo branch railway. The Norton Griffiths construction contract for the line was cancelled in March 1917 and along with it went Mackay's position.

Mackay then began the most adventurous phase of his career which occupied him for the greater part of his working life. He undertook detailed forestry surveys under challenging conditions in New Caledonia, Sumatra and Borneo, and especially in Manchuria and northern China. In 1924 he was captured by bandits in Fukien province, China, and held for ransom for six weeks under the most harrowing conditions before being rescued. His arm was badly broken when he was captured and never healed properly. The bones were eventually splinted together with silver plates, and for the rest of his life Mackay wore a heavy leather strap to support his arm. His adventures were later serialised in 1931 by the *Sydney Mail* newspaper and make for fascinating reading.[22]

He passed away at his home in Enfield, Sydney, at the age of 78. He kept meticulous records of his travels and activities but unfortunately, according to his granddaughter Flora Sinclair, his immediate family 'were singularly careless in their treatment of them,' and all that survived was one small photo album of his exploits in China.

The western end of the CHTCo.'s big Nondaville saw mill. The line curving downhill on the right is the Boambee Tramway over which sawn timber was railed to Nondaville Siding. The Y-junction on the left is part of a dead-end siding forming the western connection to the logging tramway behind the buildings in the right background. The twin chimneys mark the location of the mill's boiler room. Photo: David Beck collection via Mark Fry



The Nondaville Mill was built on the toe of a low spur ridge coming off the Coast Range. The logging line climbed the north flank of the spur to reach the mill's log yard. The sawn timber outlet tramway featured a balloon loop terminus which passed alongside the timber loading platform on the southern side of the mill.

The CHTCo's Nondaville Sawmill

The CHTCo's showpiece was its giant No. 2 Mill which Eli Carter named Nondaville, after his Queensland sheep station Nonda Downs. It was built at the base of the foothills of the Coast Range under the shadow of Big Boambee Mountain, some five miles south-west of Coffs Harbour. The Nondaville Mill was sited to tap timber from the main area of the company's Exclusive Right No. 1 which lay in the Upper Orara Valley on the inland side of the Coast Range. A 17-mile logging tramway was planned to cross the Coast Range via Big Boambee Gap into Fridays Creek valley, where the company had negotiated tramway rights with a number of property owners, and thence south to its concession area.

It was planned to be one of the biggest saw mills in both Victoria and NSW. The main building was 146 ft long by 100 ft wide with a floor space of 14,600 square feet. A Waterous twin-circular Canadian saw costing £1450 was imported from Brantford, Canada. It was capable of ripping through a 20 ft log in less than 30 seconds. It was driven by a 240 hp steam engine supplied by two 16 ft long by 6 ft 6 in diameter boilers made by Woodley Brothers of Sydney. There were four secondary saw benches installed to process the flitches cut by the Waterous log saw. Sawn timber from these benches was loaded directly onto trucks and railed to the company's private Nondaville Siding on the North Coast Railway. [23]

Construction began in May 1912 but progress was slow. It was a large undertaking; the big Waterous log saw had to be ordered from overseas, and the two mill boilers had to be custom-made in Sydney. The specialised plant had arrived by October 1913 and the mill began cutting in early January 1914. Alexander Mackay supplied the following description of the mill to the local newspaper in April 1915:[24]

> No. 2 mill, which is, as far as I know, the largest in this State, will very shortly turn out over 20,000 ft super over the saw per day of 8 hours. The means of breaking down the logs is by the

Waterous twin saw gear, which can go through and cut a 20 ft log in less than half a minute, and cut everything to proper gauge. The Waterous (American) gear cost £1450 landed here. The mill is so arranged that practically everything works by gravitation. What I mean, from the time the loco unloads her rake of logs on the log studs, timber, etc., all works downhill till it is on the railway trucks (our own trucks). Nothing is stacked at the mill, all put on trucks and taken to depots at North Coast railway.

All refuse, sawdust, edgings, etc., are carried clear of the mill by a conveyor 400 ft long and burnt. The power used is two 6 ft 6 in by 16 ft colonial-type boilers with an engine developing 240 horse power.

No. 1 mill, at Bonville, is built pretty much on the same lines as the large mill. It has a capacity of 7000 ft per day. The number of boilers, from 12 ft by 4 ft and up, and including locos at work on both jobs, is eleven.

All the mills, depots and Coffs Harbour are connected by 18 miles of private telephone. We have our own lathes for turning, etc., and build all our own rolling stock, such as trucks, etc.

The length of wire rope used on the various log haulers is over 6 miles. There are 2 drums on each hauler and 2 lots of wire, one for hauling in and a smaller one for return or hauling gear back into the bush. This has to be twice the length of the hauling wire. The size of the rope used is 7/8 in and 5/8 in.

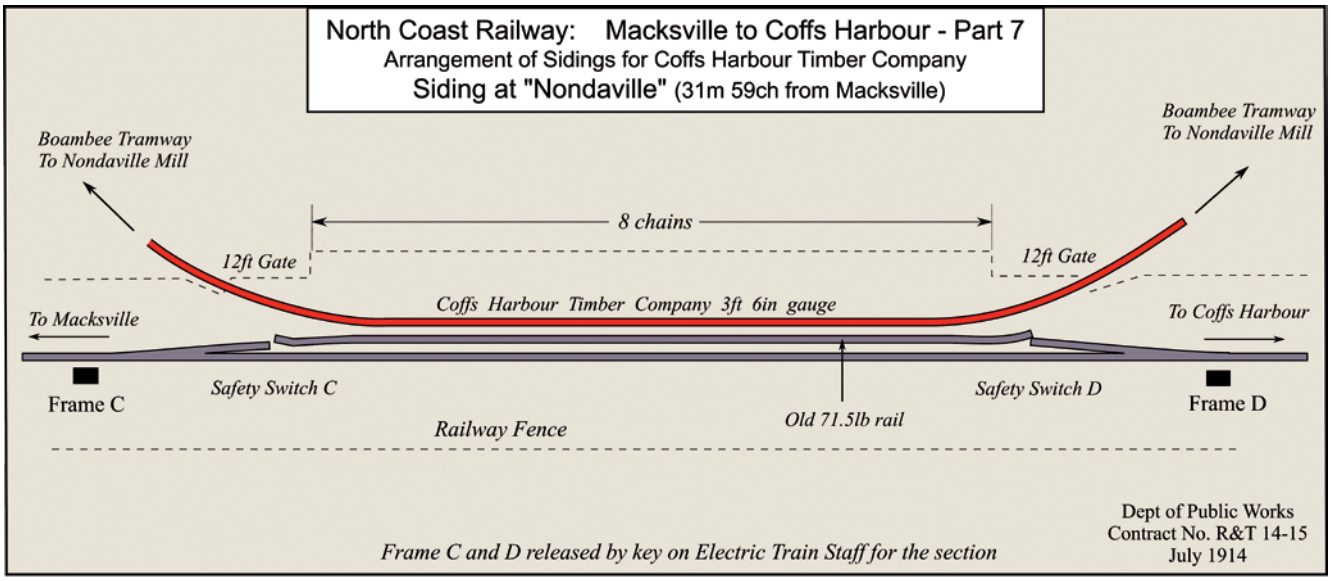
The CHTCo's Boambee Timber Tramway

The Nondaville Mill was served by a two-mile logging tramway and a five-mile outlet tramway, collectively known as the Boambee Timber Tramway. The company's initial plans included an ambitious 17 mile logging tramway to tap the western area of its Exclusive Right No. 1 concession area in the upper Orara River valley. In readiness for this it leased a 132 acre block of Crown Land immediately adjoining its Exclusive Right to use as a timber depot and a base for its forest operations.[25]

Its proposed logging tramway to the timber depot crossed both Crown Land and private property. The first two mile section, from the mill to the summit of the Coast Range, passed through Forest Reserve 34091 for which government permission was required to construct and operate a tramway. This was obtained by way of a special lease, 1912-17 Bellingen, for a 15 year period at a cost of £5 per year.[26] The next four-mile section to the planned timber depot on the west side of the Coast Range passed through private property. Right-of-way agreements were negotiated with the owners of seven large blocks of timber land on the western side to enable future construction of the tramway.

When the company's Nondaville operation wound up in 1917, only the first two miles of the 3 ft 6 in gauge logging tramway, to the foot of the Coast Range, had been built. Although Alexander Mackay stated in 1913 that, 'a tramway has been graded over the hills into the Orara country, from where the bulk of the timber will be secured,' the route was not formally surveyed and no traces of earthworks have yet been found. According to a local historian, the late George England, logs were obtained from the Friday Creek area on the western side of the range to the railhead by means of a long steel rope. The lease for the timber depot lease was surrendered in 1917 and the logging tramway lease was declared forfeit in 1921.

The Nondaville Mill's big Waterous Canadian log saw cost £1,450 and was imported from Brandford, Canada. Its twin circular saw configuration was capable of ripping through a 20 ft long log in under 30 seconds. The mill was laid out on a slope so that sawn slabs slid down runners from one saw bench to the next then and on to rail trucks waiting on the Boambee Tramway. *Photo: NSW State Library*



The CHTCo's short-lived (1915 – 1917) Nondaville private siding on the NSW North Coast Railway. The company's 3ft 6in gauge line paralleling the government siding was part of a balloon-loop at the terminus enabling locomotives to return to the mill funnel first.

A five-mile 3 ft 6 in gauge steel-railed outlet tramway connected the No. 2 Mill to the company's private Nondaville Siding on the NSW North Coast Railway, two miles south of Coffs Harbour Jetty. The line passed through a mix of private property and Crown Land. Right-of-way agreements were obtained from half-a-dozen land holders along the route. Special Lease 1912-17 Bellingen also covered the Crown Land sections on this route, including Camping Reserve 42104, now part of Southern Cross University, and Temporary Common Reserve 25962, now part of Coffs Harbour Regional Airport.

Tramway construction began in 1912 using 40 lb/yd steel rails imported from Scotland. One such cargo was landed at Coffs Harbour Jetty in June 1913 when the coastal steamer SS *Gunbar* discharged 200 tons of rails.[27] By the end of 1913 the rail head had reached the surveyed line of the NSW North Coast Railway. However, the first section of the government's line, from Coffs Harbour to Raleigh, did not open until August 1915. In the interim, sawn timber was off-loaded at a temporary railhead on the main road and completed its journey to Coffs Harbour Jetty on horse-drawn wagons.

The Boambee Tramway was not a typical timber tramway in that it featured a balloon loop terminus at Nondaville Mill and also at Nondaville Siding. This configuration enabled locomotives to travel funnel first in both directions though the main reason was probably to achieve greater efficiency in transporting the huge quantities of timber the Nondaville operation was expected to produce.

The top leg of the balloon loop at the mill passed beside the sawn timber loading platform then swung in a wide circle to the south to rejoin the main line which followed Newports Creek down the shallow North Boambee Valley towards Nondaville Siding. Little in the way of earthworks was required and once the main road had been crossed, the rest of the way was over a flat sandy plain. The only bridge of any consequence spanned the lower reaches of Newports Creek, between the current Pacific Highway and the North Coast Railway.

The rail facilities at the company's private Nondaville Siding consisted of a single standard gauge loop siding, 550 ft long, constructed with old 71½ lb rails. The exact layout of the balloon loop terminus is now conjectural, as any physical remains now lie under the adjoining airport runway. The NSW Public Works Department drawing for the private siding shows the outlet tramway curving into the rail corridor from one direction, paralleling the loop siding, and then curving out again in the opposite direction.

An unexpected problem arose due to the Nondaville Siding's location when it was realised that it lay inside the danger zone of the Military's newly surveyed rifle range, which subsequently had to be abandoned.

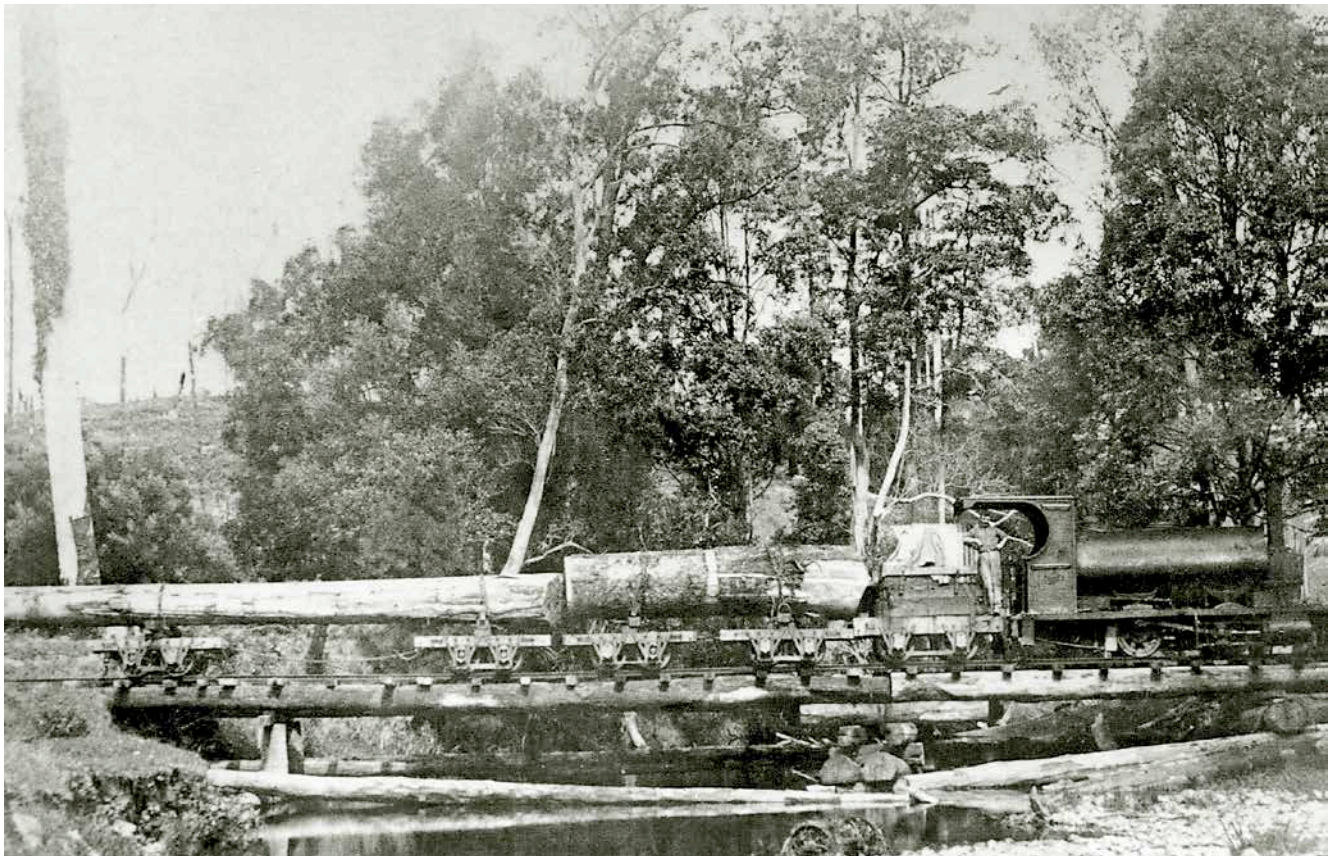
The lavishly-equipped Nondaville Mill had a very short life. The advent of World War 1 brought about the loss of export markets and a shortage of shipping, and the company closed the mill in September 1915. It was restarted in July 1916 but 12 months later shut down for good during the General Strike in August 1917, when 100,000 workers in NSW and Victoria went on strike and seriously disrupted rail and shipping operations. The whole Nondaville plant including the Boambee Tramway rails was advertised for sale in the Sydney press in November 1917.[28] The tramway leases were declared forfeit in July 1921 and by 1922 Nondaville Siding had been pulled up.

The first Boambee Tramway locomotive: 0-4-0ST Andrew Barclay 237/1881

The Australian Kerosene, Oil and Mineral Company (AOKM Co.) purchased four new Andrew Barclay (AB) steam locomotives from Andrew Barclay and Sons Ltd of Kilmarnock Scotland for its oil shale operation at Joadja, NSW. These were 0-6-0ST AB 180/1878, 0-6-0ST AB 222/1880, 0-4-0ST AB 237/1881 and 0-6-0ST AB 253/1882. The Joadja works closed down in 1905 and the plant and machinery were sold off.[29] Messrs Cameron and Sutherland, second-hand machinery dealers of Sydney, purchased the three newest locomotives at auction in May 1911. They sold AB 222/180 and AB 237/1881 to the CHTCo in either late 1912 or early 1913, and sold AB 253/1882 to Allen Taylor and Company Ltd for its Wootton Timber Tramway operation in 1916.

The CHTCo assigned the four-coupled AB 237/1881 to the Nondaville Mill in the North Boambee Valley. It had 30 in diameter wheels with 10 in by 18 in outside cylinders. It was paired with a home-made four-wheel tender to carry additional fuel. Unlike its three six-coupled sister locomotives, AB 237/1881 was specially ordered as a four-coupled locomotive by James Fell, the General Manager of the AOKM Co. He requested that the new locomotive should have four wheels and that:

0-4-0ST Andrew Barclay 237/1881 poses with well-dressed company officials in a narrow cutting on the Boambee Tramway. The presence of freshly-excavated spoil above the cutting suggests the photograph was taken either during or shortly after the opening of this section of the line in 1914. The figure in the right foreground is thought to be the photographer's assistant holding a flash-powder stand. Photo: NSW State Library



The Boambee Tramway closed in 1917 and the company transferred 0-4-0ST Andrew Barclay 237/1881 to Crossmaglen to join 0-6-0ST Andrew Barclay 222/1880 on the Bonville Tramway. It was rebuilt in the 1920s with the cab and saddletank off AB 222/1880.
Photo: Bruce Macdonald collection

It is highly desirable that these be placed as close together as possible as the curves on some parts of the road are excessively sharp; owing to this the last locomotive supplied (AB 222/1880) does not suit the Joadja Creek end of the line, and the object in ordering this one is that she can run on either end of this line, in case one or both of the present locomotives should break down.[30]

He also required an extra water tank to be fitted, a rectangular box which sat on top of the reverse-curved saddle tank, because, with the previous locomotives the water in the saddle tank tended to become too hot and the capacity was rather limited.

AB 237/1881 was initially used on the construction of the Boambee Tramway. When the Nondaville sawmill began cutting in January 1914, the locomotive was employed to haul logs to the mill on the short logging tramway, and sawn timber over outlet tramway to the temporary railhead on the main road to Coffs Harbour Road. In June 1915 the local newspaper reported:

Owing to the greasy rails and the steepness of the decline down which she was travelling, the engine, which conveys timber from the Coffs Timber Co.'s mill at Boambee to the depot at the railway, ran off the line on Saturday. Fortunately no one was injured, the men jumping clear after applying the brakes. It is said that the engine is not seriously damaged, and can be replaced with no great trouble.[31]

The extent of the damage was contradicted by a second report a week later to the effect that the locomotive and trucks were considerably damaged, and would result in a number of men being laid off. Whatever the actual situation was at the time, it appears that AB 237/1881 was repaired and returned to service. The locomotive's career on the Boambee Tramway was relatively short. The Nondaville Mill was closed in August 1917 and the assets were advertised for sale. Two unidentified locomotives appeared in the assets list; almost certainly these were AB 237/1881 and Lima Shay 2135/1909.[32]

AB 237/1881 did not find a buyer and was transferred to Crossmaglen to join sister locomotive 0-6-0ST AB 222/1880 on the Bonville Tramway. It was rebuilt during the early 1920s and acquired the boiler and cab, and possibly other parts cannibalised from AB 222/1880.

Rebuilt AB 237/1881 is believed to have reached the end of its economic life by June 1929 when the CHTCo placed an advertisement wanting to purchase a 'good second-hand 3 ft 6 in gauge light locomotive.' When the company went into liquidation two years later, the Andrew Barclay was not amongst the assets listed for sale and it is assumed that it had either been previously scrapped or was left derelict at Crossmaglen.

The second Boambee Tramway locomotive: A-class Lima Shay (2135 / 1909)

The CHTCo's second locomotive at Nondaville was an A-class Shay (Lima 2135/1909) which it purchased second hand from the British Australian Timber Company (BATCo) in 1915. The Shay was a geared steam locomotive weighing 23 tons. It had two vertical 8 in x 12 in cylinders and was mounted on a pair of four-wheel trucks fitted with 26 in diameter wheels. (This locomotive is illustrated on the front cover of this issue of *Light Railways*.)

The BATCo's new Shay was manufactured by the Lima Locomotive Works in Ohio, USA and arrived by ship at Coffs Harbour Jetty on 13 July 1909. Lima's Australian agents, Messrs Gibson Battle and Co., assembled and tested the locomotive

This is believed to be the result of the July 1915 runaway involving 0-4-0ST Andrew Barclay 237/1881 on the Boambee Tramway. The crew were able to jump clear but the locomotive suffered damage variously reported as either 'not serious' or 'severe,' depending on which newspaper is to be believed. The locomotive later inherited the boiler and cab from 0-6-0ST Andrew Barclay 222/1880, and the damage sustained in this accident may have been one reason why. *Photo: Coffs Harbour Library*

A-class Shay (Lima 2135/1909) propelling a loaded log truck and hauling a trainload of sawn timber with 0-4-0ST Andrew Barclay 237/1881 bringing up the rear on the Boambee Tramway c1915. The CHTCo. had plans, which never eventuated, for 17 miles of logging tramways in rugged country west of the Coast Range. The Shay was acquired with this aim in mind. Photo: Coffs Harbour Library

before handing it over. The BATCo employed the Shay on its steeply graded and sharply curved Bruxner Park logging tramway to supply its big sawmill at Coffs Harbour Jetty.[33]

The BATCo was obliged to shut down its Coffs Harbour operation in December 1913. The land occupied by its timber depot and tramway near to the jetty was required for the planned NSW North Coast Railway. The leases for this land, as well as the land occupied by its saw mill, were due to expire at the end of 1913, and the Company was informed they would not be renewed. In January 1915 the BATCo's unoccupied Coffs Harbour saw mill burnt to the ground in a spectacular blaze. Salvaged machinery was sold by auction a few months later.

The CHTCo took advantage of the BATCo's misfortune to purchase its Shay locomotive in March 1915. It also purchased a log hauler and eight miles of steel rails from the BATCo's Bruxner Park logging tramway.[34] The company placed an advertisement the same week in the Sydney press; 'Wanted immediately steady reliable Loco Driver, one used to bush sawmills preferred,'[35] by which it is inferred that it was intended to press the Shay into service without delay.

The Shay was assigned to the CHTCo's Boambee Tramway, and there seems little doubt that the company intended to employ the locomotive on its planned logging tramway across the Coast Range into the Upper Orara River Valley. The Shay's ability to negotiate steep grades and tight curves would no doubt have been used to great advantage in the rough country the tramway was to penetrate.

However, only two miles of the planned logging tramway, to the foot of the coast range, had been constructed when the company closed its big Nondaville Mill in September 1915. Although there was a short-lived revival between July 1916 and August 1917, the logging tramway was not extended and the Shay's full capabilities were not put to the test.

The Shay was included in the list of company's Nondaville assets advertised for sale in November 1917 but there were no buyers. It was advertised for sale again in January 1919 through the agency of Hincks and Co., Sydney.[36] It was subsequently acquired by Laheys Ltd for its Canungra timber tramway in south-east Queensland, and was abandoned there after operations finished in the mid-1930s. It was photographed in a derelict condition at Canungra in 1937 and by the 1950s little more than the boiler shell remained.

Part 2 of the Coffs Harbour Timber Company; The Maharatta Mill and the Bonville Timber Tramway, will appear in a future issue of Light Railways. *It details the history of the CHTCo's second mill and tramway at Crossmaglen, and the eventual demise of the company.*

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TREASURES FROM TROVE

WHEN the Gembrook narrow gauge railway opened on 18 December 1900 there was no opening ceremony – no doubt the authorities were too busy planning the Federation celebrations for the following New Year.

But the event did attract newspaper attention, as this item from the Melbourne *Argus* of 18 December demonstrates. It is reproduced exactly as printed, including the peculiar misspelling of the word 'hauls'!

With a write-up like this it is no wonder the railway attracted holiday crowds from the time it was opened.

Large numbers travelled on Boxing Day and New Years Day – and at all holiday times thereafter.

By the time the railway closed in 1954 three generations of Melbourne residents had happy holiday memories of the railway – hence a groundswell of public sentiment supporting its preservation.

NEW MOUNTAIN RAILWAY.

FERNTREE GULLY TO GEMBROOK.

SPLENDID HOLIDAY RESORT.

Wild, picturesque mountain scenery, good fishing, splendid shooting and excellent camping grounds are a few of the attractions that the narrow gauge line from Ferntree Gully to Gembrook, which is to be opened today, present to the holiday-maker. Ferntree Gully itself is the boundary line between civilisation and nature. A quarter of an hour's travelling on the toy-like 2ft. 6in. gauge railway, and the traveller is in the heart of the fastnesses that range from the Gully to Gembrook, 18 miles further on by rail: as the crow flies, perhaps half that distance. For that space of time the miniature train climbs up its mountain track, and behind in the hollow lies Ferntree Gully with its houses, its yellow cornfields, its closed crop pasture land, and its macadamised roads; round the elbow of a frowning hill the train winds its way, and then—the echoing forest.

Onward and upward the little engine steams— "Hissing Jinnie" she is known on the line—running along sidings on a 12ft. wide bed, with a billowing hill above and a deep valley below. Now the top of the rise is in sight : one more bend, and then the tableland. Vain thought. There is another hill to be skirted and crossed and recrossed, and yet another and another, and still the train is mounting, for the grade is 1 in 30—the steepest in the colony—and 330ft. have to climbed in the three miles that separate Ferntree Gully from Monbulk. The line runs back like a thin ribbon winding up the mountain side, and as the train gets up toward the skyline its circuitous course can be traced in three distinct sections of track, which are all in sight at the same time, until they are lost in moving round a perfect horseshoe bend, and the train is at last on the far side of the hill.

Over the Monbulk bridge, which is a three chain curve, the sturdy little engine halls her load, and then another pull of 250ft. to Menzies Creek, and 50 more to Emerald. But before the latter place is reached the traveller is 1,045ft above sea-level. His view is only curtailed by the horizon.

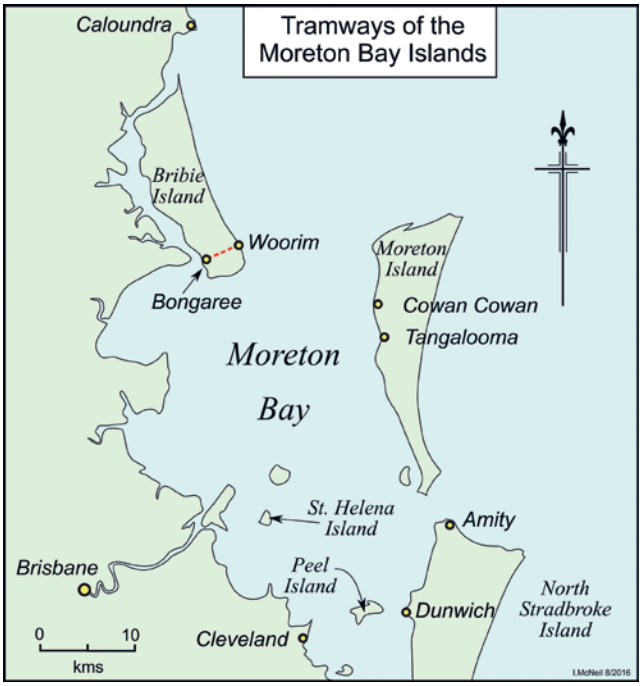
After Emerald the down grade : 430ft. has to be descended to Cockatoo Creek, now known as Devon, and the ideal place for a picnic is reached. The beautiful gullies extend for as far as the eye can reach, the quail rises with a purr-r-r as the intruder stumbles forward through the matted undergrowth, the rabbits scamper away, and a wallaby gallops over the tangled scrub and brushwood to safety. A few hundred yards from the Devon station—all the stations exists only in name at present, there is a broad stretch of green sward, carpeted with delicate little terra-cotta colour, purple bell, and tiny heliotrope flowers, and the creek, which is said to abound with blackfish and eels, and of which the water is of the purest quality, runs a few feet away. Nature can do no more for the pleasure seeker than she has done here. But every station has its natural picnic ground, and all are bounded by creeks on one side, in which there is reported to be good fishing.

To the settlers along the railway the line has been a sheet anchor. It has kept them on the land. But if it is to pay more must follow, and open up the fruit growing and timber resources of the locality. For the holiday-maker the line offers unrivalled attractions. There is not its like within twice its distance from the city. The compact, beautifully balanced permanent way is one of the most striking features of the line, and the engineering feats accomplished must be seen to be appreciated. The line will be opened for traffic this morning for the first time, and the railway authorities, anticipating a goodly holiday traffic are making arrangements accordingly. They should not be disappointed.

Tramways of the Moreton Bay Islands

by Rod Milne

Dedication: This article is dedicated to the memory of the late Father John Green, involved in his retirement in the Woodford Railway. In his later years, John lived in a small wooden house at Woorim, and had strong connections with Bribie.



Preamble

Anyone familiar with Brisbane would be aware of the marvellous environmental feature that is Moreton Bay, still home to occasional dugongs. This majestic water body is framed to the east by a string of islands, including Moreton, and North Stradbroke and South Stradbroke Islands. Up until the Second World War when a heavy tempest split the two islands asunder at a narrow isthmus called Jumpinpin, these two latter islands were one. The northern portal to the bay, where the main shipping channel into Brisbane is guarded by Cape Moreton lighthouse, boasts another lovely island: Bribie.

Surprisingly, each of these islands once boasted rail transport, albeit in a fairly primitive form as jetty tramways. This article's purpose is to describe these.

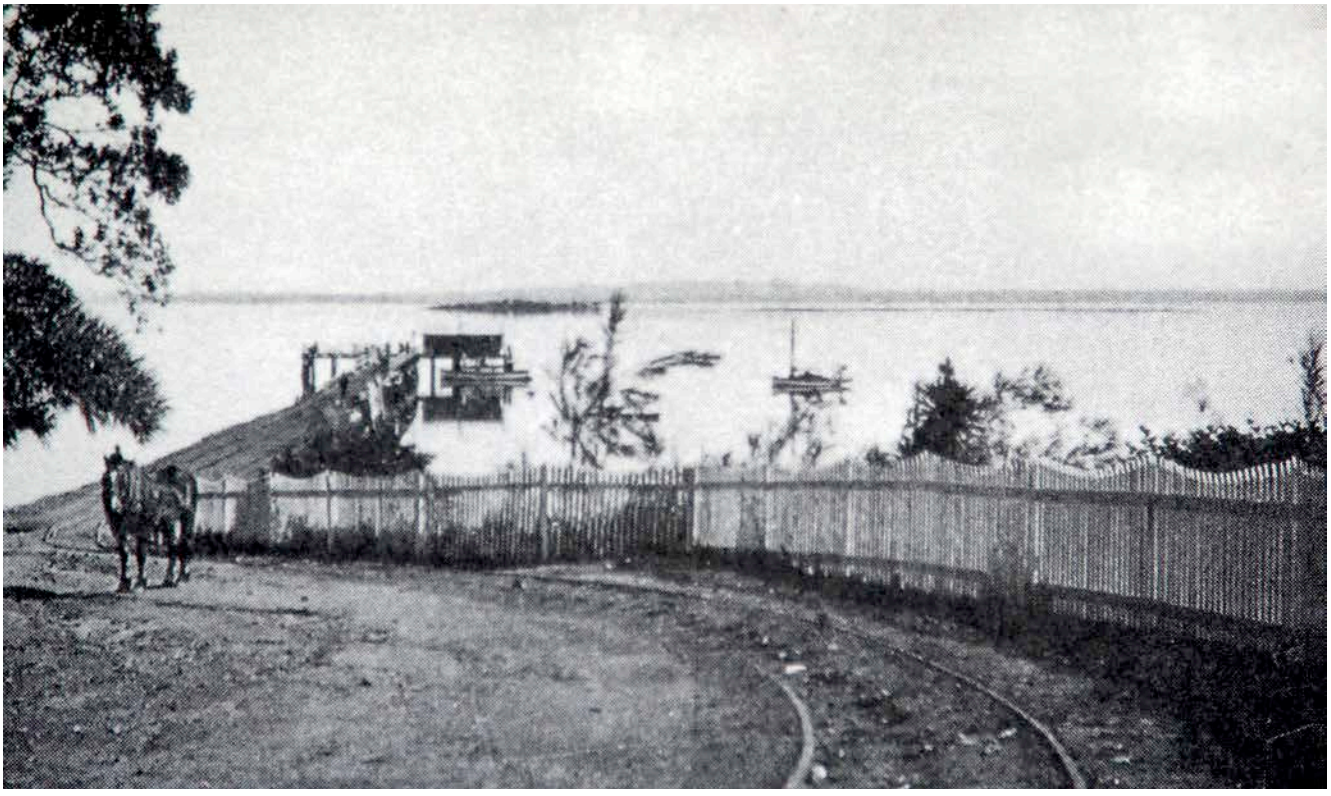
North Stradbroke and Peel Islands

Having spent many wonderful holidays camping and staying at Point Lookout on North Stradbroke, I have often wondered whether there were railways on the island. In the early years, transhipping arrangements were basic, with the settlement of Point Lookout receiving its supplies by lighter at what became known as Cylinder Beach (cylinders of gas came in via the beach).

Likewise, a smaller settlement of Amity at the north-west end of the island had a jetty servicing Moreton Island settlements at this end. This was the home of the famous Dr Welsby, the town boasting a racecourse by the passage between the two islands until erosion swallowed it all up.

The biggest town, Dunwich, on the western side, definitely had a tramway which led up from the jetty towards the infamous Benevolent Asylum which dominated the town in the era 1865-1946. Initially, the asylum dealt with aged persons, there also being a lazaret on Peel Island north east of Dunwich, but with changing medical practices, the Dunwich facility became one for older residents in poor financial straits.

In late June 1910, the Government approved the tender of F Brims and Company to construct a short tram line from the port to the asylum to enable "the handling of



The Dunwich Jetty Tramway led from the jetty up a rise to the low hill on which the asylum was located. This view looks west from the rise down to the jetty, the horse tethered by the gatehouse apparently the one used to haul loaded trolleys up the rise. Photo: courtesy Peter Ludlow Moreton Bay People

stores and general produce". The tender amount was £289, the price including installation of tanks as well, and it is presumed the task didn't take long to complete, a short line having been constructed earlier in 1886 with the 1910 extension enhancing this.

The tramway didn't have to go far, for the ledge upon which the asylum was located was just above the jetty, no more than a half mile away but up a stiff grade. A later sketch plan of the site shows the tramway at the ledge hooking right to the south initially, passing the post office before curving back to the east to reach the power station and laundry. This area was graced by a large brick smoke stack. That plan also shows a later amendment to the tramway whereby it ran on a more northerly course to end by the laundry and power station in a double dead-end now heading due south at right angles to the other alignment. Presumably, whenever that realignment occurred, it was a relatively simple task to lift the track in sections and put it in a more convenient alignment.

The small four wheel trolleys would have been used daily, bringing supplies up to the asylum, as well as despatching other items going back to the main land. Some items would have been quite bulky and having a railed access would have been of great benefit to the asylum and its inmates. Coal was an important bulk commodity, as well as building materials and supplies

For much of the early 1900s, Dunwich asylum was supplied by one ship, the faithful *Otter*, which made a twice-weekly trip over the bay from Brisbane. It conveyed supplies and mails, as well as passengers, the name *Otter* being honoured in the name of one Brisbane's diminutive river ferries in service in 1989. In later years, the trip occurred on Tuesdays and Thursdays, the boat attaching a barge of coal once a month for use at the asylum power station. This was unloaded into bags by men on the wharf. The smaller boat *Karboora* (essentially a launch) sailed from Cleveland each day for Dunwich with supplies for the island.

Oddly the short railway line at Dunwich was of QR gauge (3 ft 6 in.), but there were good reasons for this, for the asylum was a Queensland Government facility and it was likely that it would call on the fellow State Government department (QR) for railway design input.

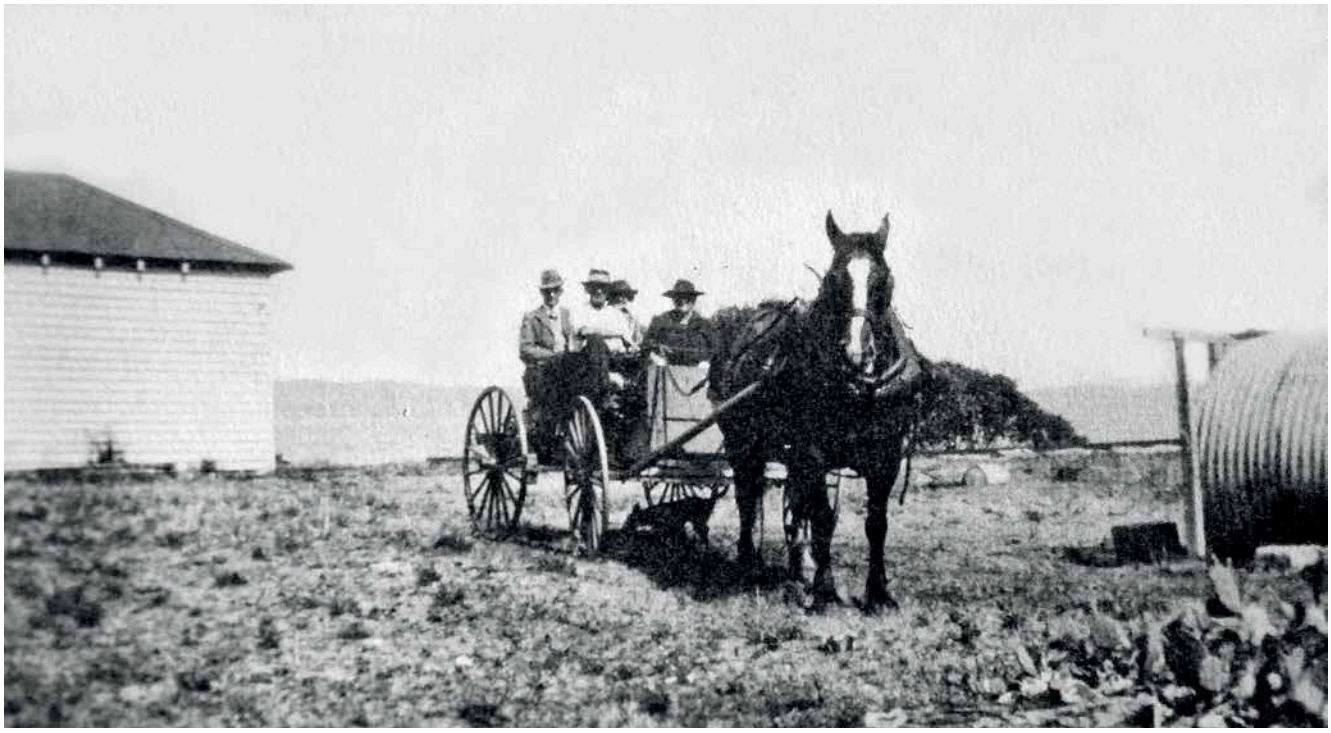
Alas, not a lot is known about the Dunwich tramway, but it did have a run around loop down at the jetty, which seems somewhat inappropriate unless it was intended that a locomotive would be deployed. With horse and other non-rail restricted motive power, trains do not need to run around. As a run around, it was limited anyway, the photo of it showing it capable of holding only a couple of the four wheel trolleys used to ferry supplies and other commodities up to the benevolent asylum. Down at the seaward end of the tramway, a jib crane was provided to assist in loading and unloading heavier items.

In 1926, electricity was installed at the asylum. Obviously, coal and drums of fuel were shipped in to Dunwich and doubtless conveyed on the tramway to the power station. With the advent of motorised trucks, use of the wee tram line declined, now a curio from distant times past.

In 1946, the asylum closed, a thousand of the residents being transferred in the spring of that year to a new facility called Eventide at Brighton. Some 200 staff were also relocated, though it is likely the tramway would have remained in use for some time later to service general public needs. With the development of a mineral sand industry on the island, bulk commodities were soon being shipped from Dunwich. Hence, the port of Dunwich was upgraded so it could deal with mineral sands traffic exploited on leases on the island, as well as road traffic conveyed by barges and ferries from the mainland at Cleveland. The old Dunwich port area was obliterated including traces of the tramway but the area did gain one unusual asset. After the Pinkenba railway station was replaced in 1969, the original hip roofed station building was shifted down to the port at Dunwich as an office. Thus the area still retains a link to railed transport.

It should also be mentioned that another jetty tramway operated in the Dunwich area, on Peel Island across the channel to the west. Peel Island was established initially as a Quarantine station in May 1874. The structures were located on the Bluff, a headland on the north-eastern end addressing Dunwich. Associated with this facility was the Stone Jetty (as it was known), a structure constructed of stone leading to a warehouse on the land where supplies were offloaded. A 1916 photo of said jetty clearly shows a tram line on it so that cargo and mails could be trolleyed from ship to shore.

The Quarantine station didn't last long and on 31 May 1907, a lazaret was established at Peel Island. Although the later site was on the opposite, eastern end, of the island, the stone jetty and its tram line remained in use for the delivery of supplies and passengers from the settlement's own launch called *Karboora* which plied between Cleveland and Dunwich and Peel Island jetties. Although the quarantine station buildings on the bluff were removed later, the settlement's trucks continued to run along the rough sand track to the stone jetty to meet the *Karboora* and convey necessary supplies. Peel Island townsite in its heyday boasted a hall, tennis court, superintendent's house, church and



Peel Island had a short tramway at the 'Bluff' where the old quarantine station and main causeway jetty were sited. In this 1916 scene, the line of rails on it can be clearly seen behind the horse and cart, the shed on the landward side being destroyed by fire later. Photo: courtesy Peter Ludlow Moreton Bay People

quite a collection of small cottages, though when it started off, the medical superintendent lived in a boat moored at the western end.

During the 1950s, there were greater moves to merge the lazaret with the broader community, and on 5 August 1959, the lazaret was closed. In 1968, the vacant premises were leased to the East Brisbane private school C.E.G.S. for a school camp for marine biology studies. It was at this point that I first made acquaintance with Peel Island.

Peel Island today has shaken off much of its unfortunate past, the sandy bay on the eastern side being called Horseshoe Bay and a favourite anchorage for sailing boats. Hard as this is to believe, a kiosk once traded along this sandy beach, the lazaret (western) side of the island being dominated by mud flats, mangroves and the ever-present midges.

Moreton Island

The least settled of the main Moreton Bay islands is Moreton, which is located just north of North Stradbroke but separated by a treacherous passage where the Liberty ship *Rufus King* ran aground and sank near Amity. The Second Word War hospital ship *Centaur* was sunk off that stretch of water but some distance out to sea with a catastrophic loss of life.

Moreton is a wonderment of nature, with magnificent sand dune mountains, the highest point being Mount Tempest. There are several settlements on the island, including Kooringal at the southern end, which was once served by a small barge that travelled over the waters from Amity on North Stradbroke Island. Tangalooma, the former whaling station, is further north also on the still water side while Cowan Cowan is closer to the point where the Cape Moreton lighthouse is a dominant feature.

During the Second World War, there was a military presence at Cowan Cowan which was close to the main shipping channel into Brisbane, this locality having a jetty once. Supplies were landed there though I am unaware whether the jetty had a line of rails along it, as this was not an uncommon thing. The initial light house there was automated in 1927 and the signals station was closed in 1963, while the pilots were based there briefly before they shifted to Bulwer.

Tangalooma definitely had a tram line in associated with the infamous whaling station that functioned there between 1952 and 1962. This was a bizarre structure comprising a whale oil factory that had a flensing deck located on its roof. A line of tramway rails led up to this deck from a sharply rising approach ramp from the point where the whales were delivered from vessels. It is presumed the rails were used to tow the poor deceased whales up to the roof where the flensing crew took over.

Tangalooma boasted a second jetty which was the main supply point just to the north of the whaling factory. This jetty had two cranes on its length and probably had a line of rails on it too, though the aerial photos of it don't clearly show one. At the landward end, the jetty was joined to a sharply curved descending embankment which went down to the western end of the whaling factory.

It was a brief and brutal industry; the factory and township supported by it being redeveloped in later years as a much more environmentally friendly resort, now served each day by a fast boat service from the mainland.

Moreton Island once sported several light houses, the main one at Cape Moreton still functioning at the pivotal entrance to the bay shipping channel from the open sea north. The lighthouse was supplied by a small launch once a month which landed necessary commodities like food and gas cylinders on the beach in a similar manner to that at Point Lookout.

Bribie Island

The smallest of the three main islands of the Moreton Bay area is the most developed now, but it wasn't always that way. Indeed, prior to the completion of the bridge over the Pumicestone Passage in 1963, it was served by barges and earlier still by the redoubtable steamer Koopa which once conveyed passengers and supplies from Brisbane via Redcliffe. When the service started, Bribie was a wonderfully rustic place, covered in woodland and paperbark swamp, the main settlement and jetty being at what is now called Bongaree, and what was then known prosaically as Still Water. There was a

general store and post office there as well as some cabins which people could rent for holidays, many choosing to merely pitch their tents on the broad foreshore with its wonderful view up the passage to the Glasshouse Mountains on the mainland.

The Koopa came up on Sundays, Tuesdays, Thursdays and Saturdays, and was very popular, having a licenced bar on board. For a while, it connected at the jetty on Bribie with a smaller launch which then continued on up Pumicestone Passage to the then tiny coastal town of Caloundra, then served by a small still water jetty at Golden Beach, where the launch ended its run. In these days of hurly burly, it's a delight to think of the days when one could travel to Caloundra all the way by boat.

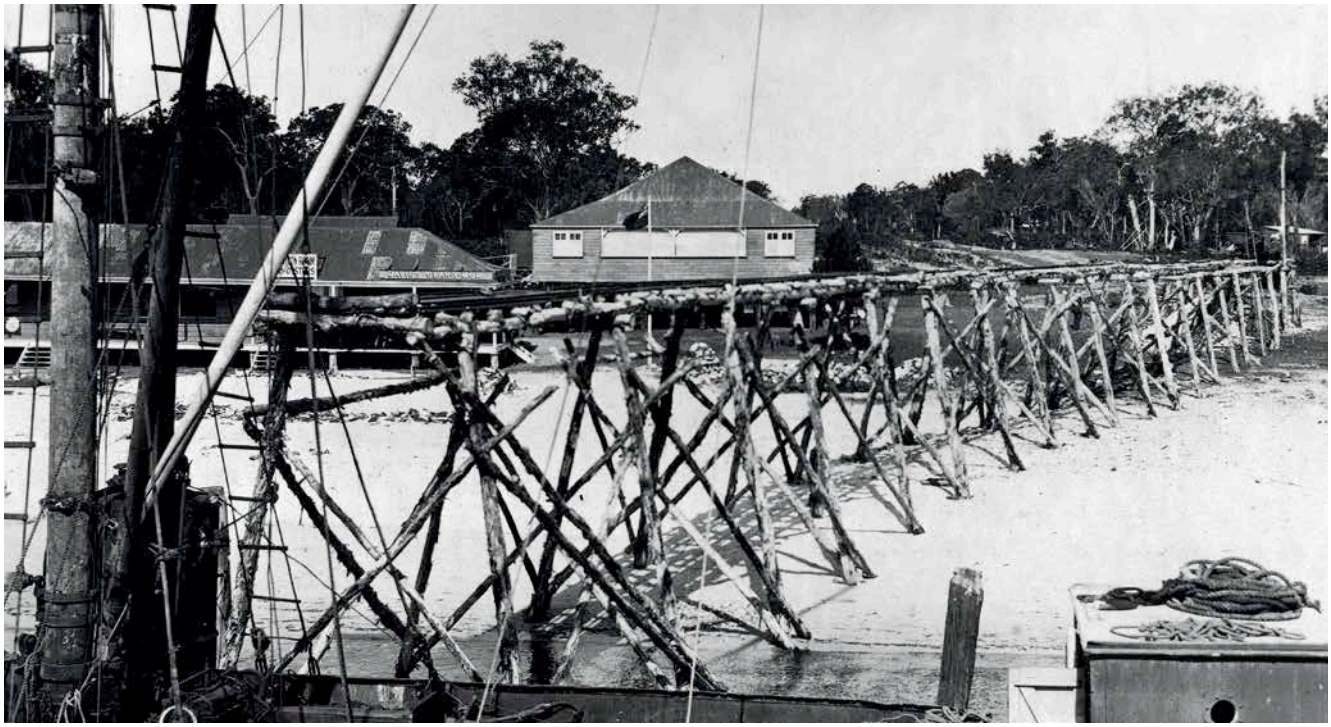
Immediately across the island from Still Water (later named Bongaree) was the Ocean Beach (later Woorim), but access was through the banksia scrub. However, in January 1914, a special lease for tramway purposes was granted to Mr G. P. Campbell over portions 7, 8 and 9 in the Parish of Woorim. The intent was to construct a tramway across the island to develop it and provide access to the remote and pristine Ocean Beach. Indeed, plans were so well advanced that a Bribie Island Tramway Award was established by the Australian Workers' Union to ensure the workers on the new tramway would be paid award wages!

The first piece of track was laid on the Still Water (Bongaree) with rails being laid out on one of the spindliest of jetties imaginable. The rails were essentially laid on a threadbare structure made of paperbark girders, so that materials could be landed allowing construction to proceed on the tramway to the Ocean Beach. In 1919, what was described as a "rough road" was cut through the wallum to Ocean Beach. Not much was done apart from that for some considerable time, and in October 1922, Mr Campbell was still hopeful his Woorim tramway would be completed within 8 months.

However, things went pearshape thereafter and in March 1923 the ten workers involved in the "Bribie tram construction works" were involved in an industrial dispute. It was noted that the tramway was not likely to ever be built, despite there being a tramway lease. A Mr Shirley took over the option to construct the cross island road, which was completed in 1923.

Detail from a road map circa 1950 showing the Woorim-Bongaree tramway as a fait accompli. Given the rapid growth of road transport, it is truly surprising a road map would show such a moribund tramway that seems to have never gone much further than the western terminus jetty. Photo: Peter Ludlow Moreton Bay People

This wasn't the end of plans for a Bribie tram that extended further than just the jetty. As late as April 1933, the State Lands Department approved a £20,000 plan by the North Coast



The jetty at Still Water, or Bongaree, was a rough structure made of paperbark trunks as support piles, and it clearly carried a tramway. This was the tramway intended to go all the way to Woorim though how far it went beyond Bongaree is unknown. The clearing on the landward side to the right of the guest house café is the direction of the rough track through the paperbark and Bribie Island black cypress pine to Woorim. Photo: State Library of Queensland

Cleveland Jetty looking seaward was busy enough to warrant a metal railed tramway. The Dunwich Peel Island supply vessel Karboora *ran from and to Cleveland jetty. Photo: Peter Ludlow Moreton Bay People*

Development Company Ltd to lease 1,230 acres of land on Bribie and develop facilities including a tram line and a bridge connecting the island to the mainland. The blurb associated with the proposal indicated that Bribie would become a surfing mecca closer to Brisbane than Southport, but like so many 'get rich' schemes in the 'Sunshine State' nothing came of it.

A later map of the island produced by the Shell Company clearly shows the tramway marked between Bongaree and Woorim. However, if it was indeed built all the way through, it seems to have had a temporary construction life only, being lifted and removed once the road was built.

Once the cross island road was constructed, Mr Shirley converted his road construction lorries to make shift buses so that passengers off the four day a week Koopa could have a surf at the splendid beach at Ocean Beach (Woorim). Once the cross island road was built, Woorim gained its first building and permanent inhabitant when a kiosk opened.

When war broke out in the Pacific, the Australian and American armies developed gun emplacements and lookout points on the east coast of Bribie, which was then closed off to the general public. It is imagined a tramway (had it still existed) would have been rather useful to convey stores and equipment and men across the island, but the rails were probably gone by then. Once the war ended in 1945, things returned to normal at Bongaree and Woorim, which remained gloriously untouched paradises for a decade or more.

The well-known Australian painter Ian Fairweather built a humpy on vacant crown land at Bongaree then, and a barge service from Toorbul to Bongaree began to usurp the Koopa. The opening of the bridge over the passage at Toorbul Point in 1963 changed Bribie Island forever, but it's still a lovely place to visit with much of its glorious wallum cypress pine bush protected in environmental and conservation parks.

Other Islands

There were other islands in the Moreton Bay that had short tram lines, the most famous being St Helena Island which had a short horse drawn tramway from the jetty in association with its infamous prison. This has been restored in recent years. Many of the smaller islands had basic jetties, which may well have had trolley lines on their decks. I would welcome any further information from readers regarding these jetties and possible tram lines. On the mainland, both Cleveland and Wellington Point jetties were graced by tramlines in their heyday of use, the former being the departure point once for the *Karboora*, bound for Dunwich.

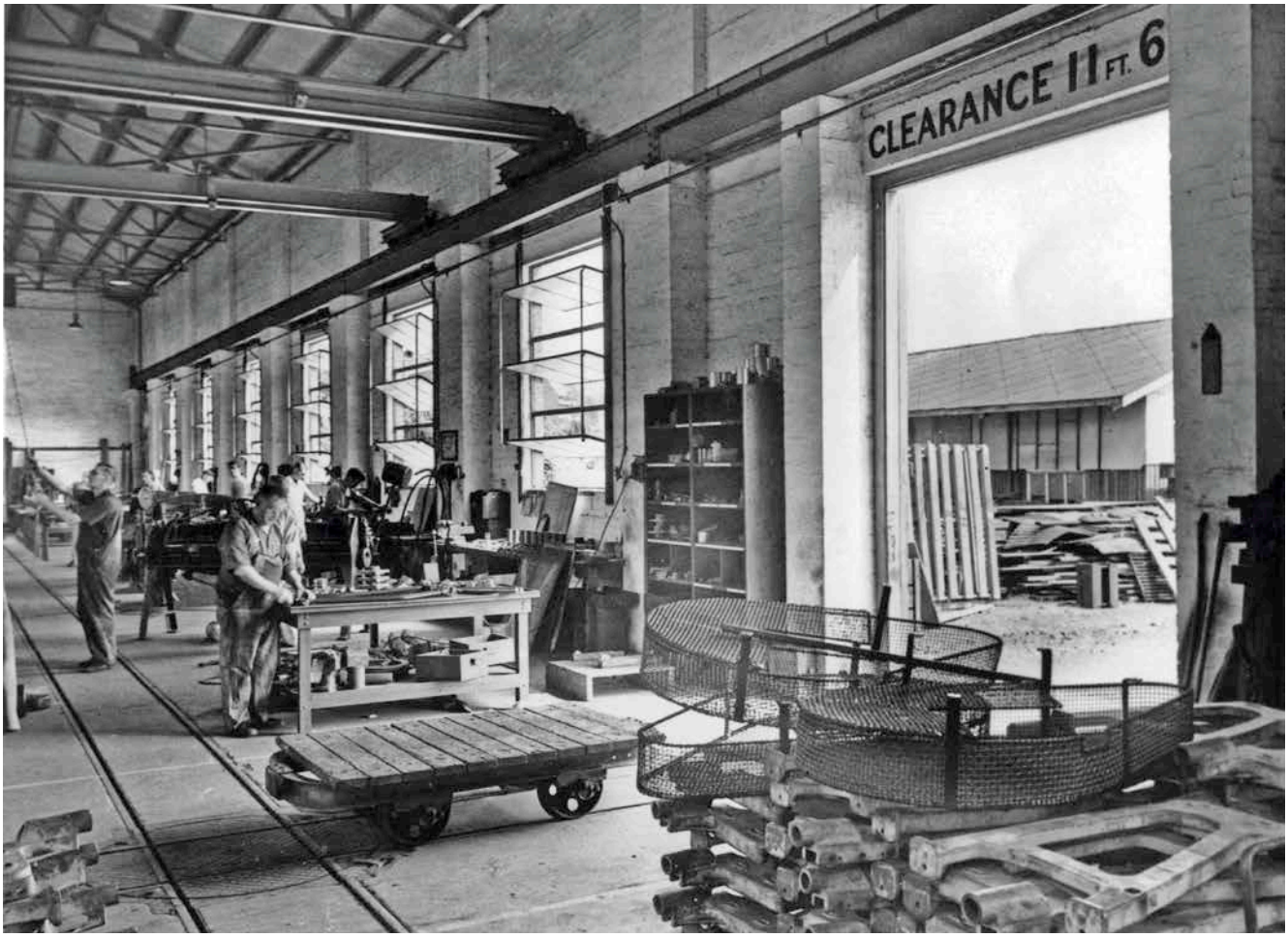
Further Reading

There are several good books covering the history of the Moreton bay islands. Peter Ludlow's interesting *Peel Island: Paradise or Prison?* discusses both Peel Island and its counterpart on Stradbroke Island: Dunwich, while the excellent *Moreton Bay People* is a compendium by Peter Ludlow of several authors providing memories of Moreton Bay generally including the islands.

With the sad title *Island of a Million Tears*, Artie Rentoul's book is an excellent read focussing on the asylum at Dunwich and the lives that were touched during this era. Note is also made of Phil Rickard's fine article on Dunwich jetty in *Light Railways* 249, containing an image also utilised in this article.

I am indebted also to David Dietrichson and John Steel who drafted an invaluable sketch map detailing the route of the Dunwich tramway through the asylum complex in its initial and later alignment.

I would be delighted to hear from others with notes or photos confirming other possible jetty tramways in the Moreton Bay area, such as at the once important pilot and military facility at Cowan Cowan. Perhaps Amity jetty once boasted a tram line for goods? Any further comment is welcomed.



John Heine & Son. The 4-wheel flat top trolley looks rather like a V-skip frame on which has been laid the timber decking.
Photo: NSW Government Printing Office, Mitchell Library collection.

John Heine & Son Ltd

by Jim Longworth

In addition to mechanical and animal power, many light railways were operated by human power. Since largely replaced by tow motors, factory trucks and forklift trucks, the use of light railways in factory settings is an interesting field, an application of light railway technology that arguably has been underrepresented in Australian light railway literature. This article explores the use of such a human-powered light railway in the works of the company John Heine & Son Ltd, Leichhardt in Sydney.

John Heine

Born in Buckfastleigh, Devonshire, England, on 14 February 1857, John Heine emigrated to Sydney in 1882 and began to make small pieces of equipment for the food processing industry, trading under the name of 'Dial Engineering Works'. He established the family company John Heine & Son in Sydney during 1886, and is remembered for his innovation and invention, specifically in the field of canning and can making. John Heine died in August 1928.

About 1900 Heine perfected an automatic body-forming and side-soldering machine for making food cans and supplied them to the Sydney Jam Company. His famous Model '4G' dominated can-making in Australia from 1907 for twenty years. His company quickly forged a reputation as Australia's foremost machinery manufacturer and over the years produced tens of thousands of machines for Australian and South East Asian industry.

The Leichhardt works and its tramways

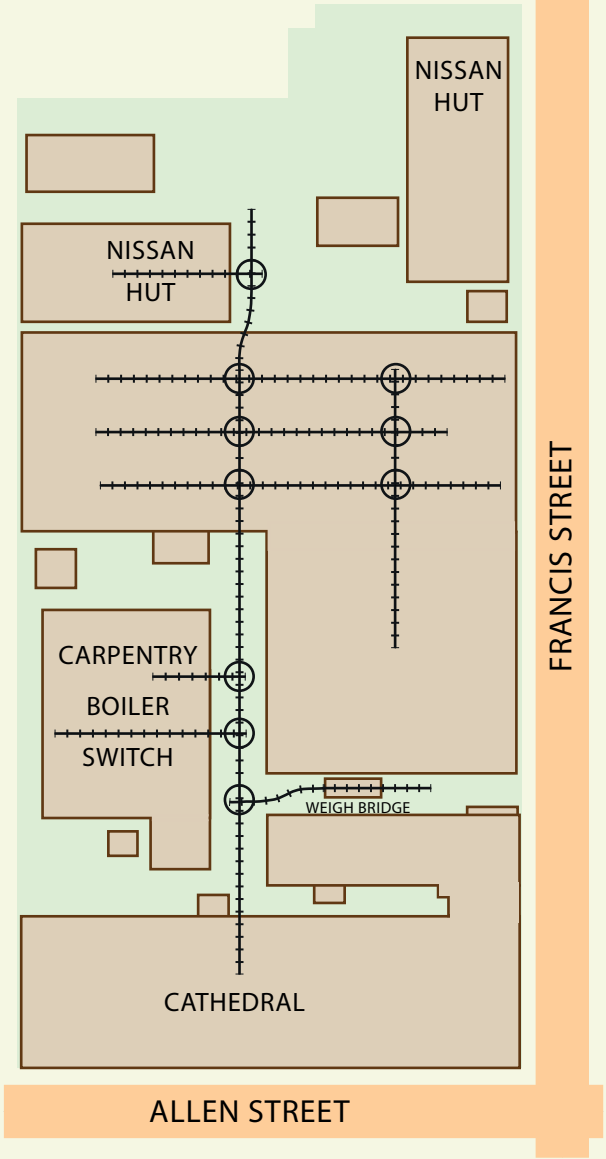
Carrying a workload far greater than that for which their premises in Redfern had been designed, a nine acre dairy farm at Leichhardt was purchased in 1916-17 on which to build a new and expanded factory. The installation of new shop-floor equipment and the application of mass production manufacturing processes allowed their range of models and variety of machines to be increased. They made presses, dies, stamps, cutters and bending machines for making: tin boxes; tins; drums; cans; roof guttering; ridge-capping; down-piping; buckets; billycans; tubs; steel lockers; steel cabinets; kitchen hollow-ware; electroplate; etc.[1]

The works were specifically designed to pass material smoothly through each successive process of manufacture, without waste of motion or handling in transport. Narrow gauge tramlines and turntables were installed liberally throughout the works, allowing handling and movement from shop to shop with the greatest of ease and economy in effort and time. Pig iron, scrap iron and coke were stored at one end of the foundry building. These materials were carried by trolley to an elevator, which lifted them up to an overhead platform, from where the cupola furnace was charged. Once cast, heavy metal castings were carried along the tramway system through each department of the machine shop. Tramways also ran from the machine-assembly portion of the works into the store.[2]

Tramway rail was 30lb/yd. Outside the buildings, rail was set flush in the concrete pavement to allow free passage of vehicles and people. Inside the buildings, rail was recessed flush into the timber floor. Because the site sloped down

underneath the wood floored buildings, each turntable was supported on a hollow cylindrical brick footing underneath. A central brick pier within the brick cylinder supported the turntable pivot. Small four-wheel flat topped trolleys were pushed around the works by hand.

By the mid-1970s, the network of rail lines had fallen out of use for materials transport. Overhead cranes did the moving. Instead the trolleys were used to sit machines on for spray painting, so Des, the painter, did not have to bend over to paint the underside of pieces. Machines and their components were moved around the works and to the store by forklift.[3]



John Heine & Son, Leichhardt, NSW

The Cathedral building was so named because it was a long narrow building, built of brick masonry, two storeys high at the Allen Street end. A steel framed clerestory roof along the main section was clad in corrugated asbestos cement sheeting. The Allen Street elevation was lit by three large very tall round topped multi-paned glass windows. Both upper wall sections along the clerestory section were likewise clad with large multi-paned glass windows.

Recording the heritage

John Heine & Son Limited established a foundry at Bankstown during the 1960s. By the mid-80s the economics of long production runs was being questioned, as new technology and production concepts permitted greater manufacturing versatility.[4] The Leichhardt plant was closed down and the company moved the remainder of its manufacturing operations to Bankstown.

Prior to demolition of the works, Leichhardt Council requested the developer prepare an archival recording of the site and lodge it with council.[5] Much of the rail, two of the 4-wheel trolleys, and two turntables were salvaged for reuse at the Campbelltown Steam and Machinery Museum, Menangle Park.[6] The firm's founder is commemorated through the John Heine Entrepreneurial Challenge, inaugurated in 2000 and now regarded as Australia's premier new venture competition for graduate students. The Challenge simulates the process of entrepreneurs soliciting start-up funds from investors. Graduate students prepare a plan for a real business that is judged in conjunction with a Presentation and a Q&A Session.

Notes

1. John Heine & Son Ltd, 1918-1930, *Sheet Metal Working Machinery – Catalogue*, JH&S.
2. Australian Can-Making Machinery, *The Australasian Manufacturer*, 14 July 1917.
3. Mainwaring R., personal discussion.
4. John Heine & Son, c.1987, *John Heine 1857-1928: Founder John Heine, Australia's Leading Manufacturer of Sheet Metal Working Machinery, 1886-1986, one hundred years serving Australian Industry*, JH&S.
5. Godden Mackay Pty Ltd, 1992, *69 Allen Street Leichhardt: John Heine and Sons Industrial Complex: photographic recording*.
6. King L, personal discussion.

TREASURES FROM TROVE

From the Border Watch *(Mount Gambier, SA), 16 February 1876. What was this locomotive? All will be revealed in a forthcoming issue of* Light Railways.

KINGSTON

(From our own Correspondent.)

February 12.

The Engineer arrived on Thursday by the Coorong, and I hear starts on Monday to put together the pieces of the makeshift engine which he expects to again have at work in the course of a few days. However, it is expected that it will not be for long, the public here believe that the mended pieces of the machinery will prove too strong for the other rotten and decayed parts, and every day we may be on the look-out to hear of some serious accident, probably attended with loss of life. I hear it is in contemplation to establish at Kingston an insurance company for the benefit of the workmen who are obliged to make use of this mock piece of machinery to convey them to and from their work.

and on 11 March:

We have had another visit, from 'Puffing Billy', who I believe makes another start on Monday morning, and, intends going to within three miles of Narracoorte if he don't break down between here and there.

Please send contributions to:
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Special thanks to contributors to the *Sugar Cane Trains/Navvy Pics 2ft* Facebook page.

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill
(see LR 247 p.22)
610 mm gauge
Com-Eng 0-6-0DH locomotives *Burnett* (AH2967 of 1963) and *Invicta* (A1513 of 1956 rebuilt Bundaberg Foundry 2001) were seen stationed at Wallaville depot on 22 July. EM Baldwin 0-6-0DH *Manoo* (3875.1 7.71 of 1971), a spare locomotive at the mill, was seeing use during July to cover for a breakdown. Stored in the locomotive workshop are Com-Eng 0-6-0DH locomotives *Thistle* (A1207 of 1955), *Dunethin* (A1922 of 1958 rebuilt Queensland Railways 1974) and 19 (AJ2359 of 1962).
A ute collided with a cane train at Tolls Road, Welcome Creek on 1 August and the driver was taken to hospital with leg injuries.
Brian Bouchardt 7/16; Chris Petersen 7/16; *NewsMail* 1/8/2016; Geoffrey Driver 8/16

CAIRNS KURANDA RAIL SERVICES, Cairns
(see LR 231 p.21)
1067 mm gauge
The two Walkers B-B DH locomotives 1103 (640 of 1970) and 1107 (659 of 1971) that had been bought from Curtain Brothers in Townsville in August 2015 and then stored at Wagner's in Stuart, Townsville, had been moved to Cairns by 17 July. 1103 was seen on its way north by road transport at Rollingstone on 14 July. This makes five of these locomotives at Cairns with 1101 (638 of 1970) and 1105 (642 of 1970) in use on the local cement shunts and 1106 (658 of 1971) soon to be recommissioned. 1103 and 1107 are to remain stored on site. All five were built for the Emu Bay Railway in Tasmania.
Andrew Matt 7/16; Rob Stanier 7/16; Neil Lyall 7/16; Mike Lee 7/16

GLENCORE plc, MOUNT ISA MINES LTD, Mount Isa
(see LR 250 p.36)
1067 mm gauge and 610 mm gauge
According to one of the mine tourist guides, after 2000, about five Mt Isa Mines Gemco 8-ton 'Hauler' locomotives, one 610 mm gauge, were fitted with Perkins diesel engines for use underground. This was apparently because replacement batteries were becoming too expensive. It seems that they are still available for use.
John Browning 8/16

MACKAY SUGAR LTD, Mackay mills
(see LR 250 p.36)
610 mm gauge
Sweetadz, a Mackay firm, has applied advertising billboards to the sides of several Racecourse Mill bins. The advertising includes reflective strips which will increase the visibility of the bins at night. With several locomotives out of action at Racecourse Mill in August, Com-Eng 0-6-0DH *Pinnacle* (AA1549 of 1961 rebuilt Com-Eng AN5849 of 1975) was on loan from Marian Mill by 20 August.
Clyde 0-6-0DH *Conningsby* (61-232 of 1961) was on loan from Farleigh Mill by 21 August.
Sweetadz 7/16; Scott Jesser 8/16; Steven Jesser 8/16; Mitch Zunker 8/16

MSF SUGAR LTD, Mulgrave Mill
(see LR 250 p.37)
610 mm gauge
Seen in action on 21 August was Com-Eng 0-6-0DH 7 *Highleigh* (B1010 of 1956). This loco has been rebuilt and now sports a cab that extends to the rear of the locomotive which has given it a quite distinctive appearance, probably being the first sugar industry Com-Eng so fitted. This locomotive was previously unnamed. Clyde 0-6-0DH 18 *Barron* (64-379 of 1964) has not been in service since it was damaged in a level crossing collision on 7 December 2015. By 23 August, it had been stripped down to the bare frame, the front section of which had been cut off.
Mitchell Millett 8/16; John Charleton 8/16

MSF SUGAR LTD, South Johnstone Mill
(see LR 250 p.37)
610 mm gauge
Following rebuild, Com-Eng 0-6-0DH multi-unit locomotives 8 (AA1543 of of 1960) and 9 (AH3979

Whilst on loan from Invicta Mill, Com-Eng 0-6-0DH Oakenden *(FB3169 of 1963) delivers empty bins to a siding in the Danger Camp area near Victoria Mill on 21 August. Photo: Luke Horniblow*

of 1964) were commissioned late July/early August. The rebuild of Clyde 0-6-0DH locomotives 2 (55-56 of 1955) and 3 (56-90 of 1956) is ongoing and not expected to be completed until September. These two locomotives have also been converted to roller bearing rods. This season, locomotives are not allowed at all on the 'silver bridge' across the South Johnstone River near the mill. Previously, an unmanned locomotive and rake of bins was propelled across by another locomotive. The old span from the Miskin Creek bridge was seen stored nearby to the creek on 19 June.
Lyn Potter 6/16; Luke Horniblow 6/16; Jason Sou 8/16

TULLY SUGAR LTD
(see LR 250 p.38)
610 mm gauge
Com-Eng 0-6-0DH *Tully No.18* (AO60113 of 1977) has been fitted with an Allison transmission this year with its first run being on 11 August.
Dale Thomas 8/16

WILMAR SUGAR (HERBERT) PTY LTD, Herbert River Mills
(see LR 250 p.38)
610 mm gauge
EM Baldwin B-B DH *Darwin* (6171.1 9.75 of 1975) and Clyde 4 wheeled brakewagon BVAN 4 (CQ3426 of 1975) returned to Macknade Mill on 29 June following a 12 month sojourn at Victoria Mill.
Victoria Mill's new bogie brakewagon built in China in 2015 then fitted out and modified at the mill was paired up with EM Baldwin B-B DH *Rynne* (5423.1 9.74 of 1974 rebuilt N+P 2009) from the start of this year's crushing season. It has ended up being painted all over yellow including the valences with grey bogies and red and white striped headstocks. Solari bogie brakewagon BVAN 3 built in 1994, formerly with the *Rynne*, has been transferred to EM Baldwin B-B DH *Wallaman* (6400.3 4.76 of 1976) and Clyde four-wheeled brakewagon BV6 (CQ3477-2 of 1976) is now a spare. BV6 saw some use with Walkers B-B DH *Victoria* (599 of 1968 rebuilt Tulk Goninan 1994) during August after one of that loco's EM Baldwin paired four-wheeled brakewagons BV8 (7065.1 6.77 of 1977) and BV9 (7065.2 6.77 of 1977) broke an axle.
Owing to several bouts of locomotive unavailability, the following inter-mill locomotive movements have occurred so far this crushing season. Victoria Mill's Clyde 0-6-0DH *Ingham* (64-382 of 1964) on loan to Macknade from 4 to 7 July and from 23 August to at least 27 August. Macknade Mill's EM Baldwin B-B DH 20 (7070.4 4.77 of 1977) and EM Baldwin 6 wheeled brakewagon BVAN 1 (7065.3 6.77 of 1977) briefly on loan to Victoria during mid week of week ending 9 July. Victoria Mill's Clyde 0-6-0DH *Perth* (69-682 of 1969) on loan to Macknade from circa 3 August to 4 August. Macknade Mill's *Darwin* and BVAN 4 on loan to Victoria from circa 3 August to 5 August. Victoria Mill's Clyde 0-6-0DH *Lucinda* (65-436 of 1965) on loan to Macknade from 2 or 3 August and still there late in August. This loco has been seeing use, rather appropriately, on the Macknade sugar train. As well, Com-Eng 0-6-0DH *Oakenden* (FB3169 of 1963) was on loan to Victoria Mill from Invicta Mill by 7 July and was still there in late August.
The Plasser Australia KMX-12T tamping machine (445 of 1998) returned to Victoria Mill from refurbishment at JD's Fluid Connecters in Ingham on 25 July. It now carries the unofficial name *Kerry Packer* and will take some time to go through the commissioning process.
On 6 August, Victoria Mill's Hudswell Clarke 0-6-0 *Homebush* (1067 of 1914) hauled passenger trains on the Nyanza line for the annual Italian Festival.
A car hit a cane train at Pinnacle Hill Road near Tobanna on 29 July. In another incident, EM Baldwin B-B DH *Gowrie* (7135.1 7.77 of 1977) had to brake suddenly to avoid a collision with a car at Warren Street in Ingham on 1 August. This caused many of its rake of empty bins to derail and long road traffic delays in Ingham resulted while they were being rerailed.
Two additional loops have been laid near the yard control building in the Victoria yard to accommodate locomotives between runs and shifts. The intention is that all daily servicing facilities will be here, obviating the need for locomotives to go to the locomotive shed except for breakdowns and maintenance.
Editor 6/16, 7/16, 8/16; *Herbert River Express* 3/8/2016

WILMAR SUGAR (INVICTA) PTY LTD, Invicta Mill, Giru
(see LR 250 p.40)
610 mm gauge
The Mitsubishi 2-2wPMR built in 1987 has found a new home at the Brandon Heritage Precinct in Brandon and was seen there on 11 July. This is a Mitsubishi L300 van that was converted to a rail vehicle by Ferguson's Engineering of Giru.
Com-Eng 0-6-0DH *Oakenden* (FB3169 of 1963) was sent on loan to Victoria Mill by 7 July. Although this locomotive has apparently been officially named *Inkerman*, it continues to carry its *Oakenden* plates.
Editor 7/16; Luke Horniblow 7/16; Ian Connell 7/16

Top: *Victoria Mill's Hudswell Clarke 0-6-0* Homebush *(1067 of 1914) waits at the yard control area for permission to proceed to the Nyanza line on 6 August. Photo: Christopher Hart* ***Above:*** *Victoria Mill's Chinese built bogie brakewagon of 2015 at the end of Wharps in the Stone River area on 21 August. Photo: Luke Horniblow*

WILMAR SUGAR (KALAMIA) PTY LTD, Kalamia Mill
(see LR 250 p.40)
610 mm gauge and 1067 mm gauge
This mill no longer has to run molasses trains on the dual gauge line to Ayr as the Aurizon sugar trains now include the molasses tank wagons in their rakes and they are placed at the filling point at the mill ready for the mill locomotive, usually EM Baldwin B-B DH *Norham* (5383.1 7.74 of 1974), to perform the filling duties.
Tegan Goodchild 8/16; Rob Daniel 8/16

WILMAR SUGAR (PLANE CREEK) PTY LTD, Plane Creek Mill, Sarina
(see LR 246 p.25)
610 mm gauge
A car collided with a cane train at Hoey Street in Sarina on 8 July. There were no injuries although the car was severely damaged. The locomotive received minor damage and no bins were derailed.
Daily Mercury 8/7/2016

WILMAR SUGAR (PROSERPINE) PTY LTD, Proserpine Mill
(see LR 248 p.24)
610 mm gauge
During the first wet weather stoppage for the season, some touch-up painting and bodywork repairs were done on Clyde 0-6-0DH locomotives 5 (60-218 of 1960) and 7 (65-442 of 1965). This included the application of red and white stripes to the headstocks in place of the yellow and black stripes.
Tom Badger 7/16

Top: *Ex Invicta Mill Mitsubishi 2-2wPMR L300 van built in 1987 at the Brandon Heritage Precinct on 11 July. Photo: Luke Horniblow* ***Centre:*** *Invicta Mill Com-Eng 0-6-0DH* Barratta *(AH4098 of 1965) heads out along the Hodel branch on 8 August. Photo: Luke Horniblow* ***Above:*** *Clyde 0-6-0DH 8 (65-443 of 1965) near Waltons siding, north-west of Proserpine Mill on 21 August. Photo: Scott Jesser*

NEW SOUTH WALES

Seventh International Conference & Exhibition on Mass Mining (MassMin 2016), Sydney

Schalker Eisenhütte Maschinenfabrik GmbH from Bochum, Germany, maker of Schalke underground locomotives had a stand at the Conference in Sydney during May 2016. It also represented partners Bombardier Rail Control Solutions from Stockholm, Sweden and Nordic Minesteel Technologies Inc. (NMT) from North Bay, Canada. Bombardier offers train automation and NMT offers mining cars, and loading and unloading stations. A paper comparing rail with other haulage methods was presented. Recent customers with large operating or planned underground mine rail systems have included PT Freeport Indonesia's Grasberg mine in Indonesia, LKAB's Kiruna mine in Sweden and Codelco's El Teniente mine in Chile. All recent Schalke locomotive deliveries to these mines have been 1435 mm gauge.

Schalke Locomotives, Keep your business on Track (Schalke cataogue); http://www.massmin2016.com/Media/MASSMIN2016/abstracts/materials_handling/08.pdf

MANILDRA, SHOALHAVEN STARCHES PTY LTD, Bomaderry

(see LR 214 p.28)

1435 mm gauge

Walkers B-B DH locos 7319 (678 of 1972), 7322 (684 of 1972) and 7333 (695 of 1972) have been passed on to the Goulburn Rail Heritage Centre and on 12 August, mill shunter Walkers B-B DH 7315 (674 of 1971) moved them from the mill to Bomaderry yard. They were still there on 18 August awaiting transfer to Goulburn.

Larry Peardon 8/16; Craig Daly 8/16

MANILDRA, NAMOI FLOUR MILLS PTY LTD, Gunnedah

(see LR 189 p.18)

1435 mm gauge

Clyde Co-Co DE MM02 (64-342 of 1964) was seen at Gunnedah on 5 July.

Greg Best 7/16

SYDNEY METRO CITY

1435 mm gauge

Twin railway tunnels, 15.5 kilometres in length, are to be built from Chatswood to Sydenham commencing in 2018. A battery electric locomotive has been ordered from CSR Zhuzhou Electric Locomotive Co. Ltd of China for this project and it will be the first of the company's products for the Australian market. Images on the company's website depict a rather large BE loco of apparent Bo-Bo wheel arrangement.

Sydney Metro website accessed 8/16; http://www.gongyetoutiao.com/xw/html/4732.shtml accessed 8/16

Left: *Manildra Shoalhaven Starches' Walkers B-B DH locomotives 7319 (678 of 1972), 7333 (695 of 1972) and 7322 (684 of 1972) in Bomaderry yard on 18 August, awaiting transfer to Goulburn Rail Heritage Centre. Photo: Craig Daly*

Below: *Genesee and Wyoming's Goodwin Co-Co DE 907 (83826 of 1960) and Downer EDI Co-Co DE GWN 003 (12-2592 of 2013) are seen between Whyalla and Middleback Junction on 10 May. Photo: John Phillips*

SOUTH AUSTRALIA

GENESEE & WYOMING AUSTRALIA, Whyalla
(see LR 231 p.23)
1067 mm gauge
The iron ore line from Whyalla to Iron Duke and Iron Knob via Middleback Junction was visited from 9 to 11 May and the following locomotives were seen at work.

- Downer EDI Co-Co DE locomotives GWN 001 (12-2590 of 2013), GWN 002 (12-2591 of 2013), GWN 003 (12-2592 of 2013) and GWN 005 (12-2594 of 2013).
- Goodwin Co-Co DE 907 (83826 of 1960), originally South Australian Railways 874.
- Clyde Bo-Bo DE locomotives 1302 (56-116 of 1956 rebuilt MKA 93-BHP-006 of 1995) formerly DE3, 1304 (61-236 of 1961 rebuilt MKA 93-BHP-003 of 1995) formerly DE7 and CK 3 (67-500 of 1967) the former Victorian Railways T405.

All of the railed iron ore is for export. Loaded trains stop just outside the steelworks where the road locomotives run round and push it over the unloader. The iron ore wagons are permanently coupled in pairs. As there are no crossing loops on the line to Iron Duke, the only way to cross is for the outbound train to proceed up the line to Iron Knob at Middleback Junction, let the inbound train pass through then propel back past the junction and proceed on to Iron Duke.
John Phillips 5/16

WESTERN AUSTRALIA

COCKBURN CEMENT LTD, Parkeston
(see LR 250 p.40)
1435 mm gauge
By 31 July, Goninan Bo-Bo DE 49 (013 of 1961) had been fitted with solar panels on the cab roof to supplement the locomotive batteries which are in poor condition.
Walter Rowe 7/16

OVERSEAS

FIJI SUGAR CORPORATION
(see LR 250 p.40)
610 mm gauge
Plans for a syrup mill at Penang and cogeneration plant at Rarawai Mill have been suspended and independent feasibility studies will be conducted on the two projects to ascertain their viability. Lautoka Mill was expected to start crushing on 19 July for an expected crop of 430,000 tonnes. Rarawai Mill will crush approximately 320,000 tonnes which includes 100,000 tonnes from the closed Penang Mill's area. Labasa Mill will crush around 665,000 tonnes of cane this season. Cane production in Fiji has declined from 3.22 million tonnes in 2006 to 1.84 million tonnes in 2015 and the National Federation Party leader has stated that the industry will die if nothing is done to improve the livelihood of the growers. He wants the growers to be subsidised to make up for the loss of the European Union grant.
Cane farmers are saying that in order to reduce their costs, more use should be made of the rail system to transport cane to the mills. Lack of cane cutters is also another problem with Fiji Correction Services inmates being used to help cut cane. In the light of the shortage of cutters, mechanical harvesting is beginning to look more attractive to farmers.
A new road and rail bridge was completed by July at Lomawai, Nadroga on the southern portion of the Lautoka Mill rail system.
The Fiji Times 28/6/2016; Fiji Broadcasting Corporation 27/6/2016; *Fiji Sun online* 2/7/2016, 12/7/2016, 25/7/2016; fijivillage.com 30/7/2016

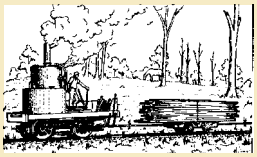
LRRSA NSW Division Captains Flat Tour re-run
Saturday 29 October 2016

Due to members' demand for an additional tour to Captains Flat, this will be arranged along the same lines as the previous trip. The mining town 45 km south east of Canberra was once a very significant silver-lead-zinc mine. In 1897 a 2 ft gauge tramway, on which a Krauss steam locomotive worked, connected Elliott's shaft with the smelter at the southern end of town. One feature of this tramway was a high curved wooden trestle bridge. The remains of the track formation are still evident in many places. There are also remains of the industrial 20 inch gauge railway system around the latter day mine site which can be readily inspected.

A standard gauge NSWGR branch line also connected Captains Flat with the main line near Bungendore of which photogenic civil engineering features are still to be seen from the road which parallels the railway for much of the distance.

Tour participants will meet at **Bungendore at 10:00am** for a 10:30am departure to Captains Flat via Hoskinstown. Must bring drinks, lunch and munchies to eat. **Note:** No fuel is available at Captains Flat. The hotel and bowling club may possibly be open for refreshments after the tour has concluded.

All interested participants please contact **Ross Mainwaring (0415 995 304)** to confirm details and travel arrangements before the tour date.



LRRSA NEWS

MEETINGS

ADELAIDE: "SA light rail package and the SA light rails centre"
We will discuss the SA light rail package, the SA light rails centre project and suggestions for cover photos for LR. News of light rail matters will be welcome from any member. Please contact Les Howard on 08 8278 3082 or lfhoward@tpg.com.au if you are planning on attending.
Location: 9 Craiglee Drive, Coromandel Valley
Date: Thursday 6 October 2016 at 7.30 pm

BRISBANE: "Bundaberg from the 1990s"
Bob Gough will be showing DVDs and slides of the Bundaberg sugar cane railways from the 1990s to recent years.
Location: BCC Library, 107 Orange Grove Road, Coopers Plains.
Date: Friday 21 October 2016 at 7:30pm

MELBOURNE: "Isle of Man – horse, steam and electric"
The Isle of Man is a self-governing British Crown dependency in the Irish Sea between England and Ireland. It is known for its horse, steam and electric tramways and railways of 2 ft, 3 ft and 3 ft 6 in gauges, mostly with rolling stock dating from the nineteenth century. Mike McCarthy will present a potted history together with photographs and videos from his recent visit to the island.
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday 13 October 2016 at 8:00 pm

SYDNEY: "Industrial Tramways of Kangaroo Island"
Jeff Moonie will be presenting a photographic evening encompassing the many and varied industrial tramways of Kangaroo Island, South Australia. Narrow gauge tramways served a salt works, a eucalyptus distillery, tourist line, jetty tram and an incline accessing a light house.
It is also the fortieth anniversary of the NSW Division so come along to the party where a scrumptious birthday cake will be served up.
Location: Library and Community Hub, corner of Conder St and Railway Parade, Burwood in the first floor room. Free Council car park in front of building or easy street parking nearby.
Date: Wednesday 26 October 2016 at 7:30pm

2015 JLN SOUTHERN AWARD

Each year the LRRSA Council recognises the efforts of researchers, writers and contributors for the publication of high quality articles on light railway subjects. The J L N Southern Award is made annually for the best article covering research of light railways for the previous calendar year.

The Judging Panel once again comprised Bob McKillop (currently Editor of *Australian Railway History* magazine), Roderick Smith (former President and Treasurer of the LRRSA) and Ruth Kerr (an eminent historian based in Queensland).

The judges noted that one feature that was included in many articles (where relevant) was the outstanding cartography, which supports the Society's aims, while helping readers to understand and interpret the material that they are reading. They noted the hands of Mike McCarthy and Scott Gould in many of these maps, while Ian McNeil provided high-class cartography to support his articles. As a Society, we can be very proud of our publishing achievements in the total world of Australian history.

One complication has been with the splitting of multipart articles over two different award years. In the case of Mike McCarthy's articles on South Gippsland logging operations and tramways, the material was published in *Light Railways* during 2014 and 2015, while Ian McNeil's 'Clarence River Breakwater Story' commenced in 2015 and continues in 2016, so it has been set aside for consideration of that work for the 2016 award.

After much consideration, the Judging Panel made the following recommendations to Council, which have subsequently been approved:

JLN Southern 2015 Award

Mike McCarthy for his comprehensive related articles 'In the shadow of the Prom' and 'Stockyard Creek'. Either of these could have been a standalone winner as they met all of the criteria well. They also cover hitherto little-known history in a very readable manner, and covering the social and economic framework in which the ventures operated. This work embodies the whole spirit and philosophy of LRRSA.

LRRSA High Commendation Award

Bridget Jolly for her article 'Thin lines of transport: South Australian monorails' as a well-researched, comprehensive and informative contribution.

The LRRSA Council would like all members of the Society to join them in congratulating Mike McCarthy and Bridget Jolly for their achievements.

Nominations of non-LR material (all LR articles are automatically included) for the 2016 calendar year are invited and may be forwarded to the Hon Secretary, Light Railway Research Society of Australia Inc., PO Box 21, Surrey Hills Vic. 3127

Raymond Francis Ellis: 19 March 1946–12 July 2016

Ray Ellis joined the LRRSA in the early 1970s and was a contributor to both *Light Railways* and *Light Railway News*. His contributions included articles on the North Mount Lyell Railway published in LR 106, 107 and 109, and steam locomotives of Nauru and Ocean Island in LR 88. In 1980 he co-authored with Keith McDonald the book *The Beaudesert Shire Tramway*, published by the LRRSA.

Ray was the only child of Brisbane professional musicians. His grandfather introduced him to the interior of the cab of a NSWGR C35 locomotive at South Brisbane in about 1950, and he was thenceforward 'hooked'. He was a steam enthusiast with a particular interest in British colonial railways and British owned railway companies overseas. He was fascinated by the British military and the Raj as a result of the wonderful stories told to him by his grandfather, who had been an officer in the British army stationed in India.

Ray joined the Queensland Division of the ARHS in 1964. He was involved as a Councillor, and served as its President for eight years. He was also editor of the divisional magazine, *Sunshine Express*, for four years. Ray served on the Board of the Australian Narrow Gauge Railway Museum Society from 1978 to 1980 and was influential in securing the Woodford museum site. He was also a member of many more societies worldwide.

From the age of 19, Ray spent four years in the UK and worked at Thos. Cook & Son, the travel agents, until returning to Australia. During his years at Cooks, he had the pleasure of working in the editorial section of the *Cooks International Rail Timetable*, under its long-time editor, the late John Price, a fellow rail and tram enthusiast.

On returning to Australia, he joined the shipping industry, in which he worked until retiring in around 2009. He was well known in the industry. Ray's experience in the shipping industry was recorded in material he contributed to a book by Peter Ludlow, *The Port of Brisbane, its people and its personalities*.

Ray travelled to southern Africa and India on a number of occasions, as well as extensively through Europe. His account of his 1983 travels on the Indian *Palace on Wheels* can be found online at http://www.internationalsteam.co.uk/tales/indiatales03.htm His eclectic expertise included hospital trains of the First and Second World Wars, and Indian railways in movies.

In 2005 he helped to establish – and became a significant sponsor of – a project to restore to working order a 2 ft gauge Hunslet 4-6-0T locomotive. The locomotive had been used by the British Army in France in World War I and was later used in Queensland. The project was nearing completion at the time of his death.

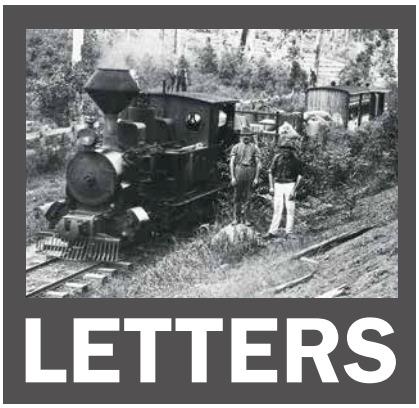
Ray's book *Rails to the Tableland* of 1976, about the Cairns Railway, is probably the ARHS Queensland Division's most successful book - it has been reprinted eight times. *The Antofagasta [Chili] & Bolivia Railway*, co-authored with Mel Turner in 1992, sold nearly 10,000 copies.

Ray also published many articles in Australia and overseas. Of particular interest to readers of LR would be included his series *The Chillagoe Mining & Railway Company* (published in the *ARHS Bulletin* in 1976-7), and an article on *WDLR Hunslet 4-6-0Ts in Queensland* (published in *The Narrow Gauge* [UK] in 1982).

Ray had recently been working on a book on the railways of Malawi (Nyasaland) and travelled there to do research in 2014. Following this visit, he sent money to the Society of Malawi Library for the purchase of a photocopier and a scanner. The book will hopefully be published under the title *Rails to the Shire Highlands*. Another manuscript, completed in 2015, was *Posh Trains*, about South Africa's early express passenger trains.

Ray corresponded widely – by snail mail and then by email, and was generous in sharing information. His name can be found in the list of acknowledgements in countless railway books and articles.

Ray was ever the gentleman, proper in his dealings with all. He was determined, jovial and considerate. He took pains to be on first name terms with all he regularly dealt with, and was interested and willing to be involved in the lives of those around him. He was much loved and much respected among a wide circle of friends and acquaintances. He will be remembered as a generous mentor and provider of encouragement to others, and an indefatigable researcher. *John Browning*



LETTERS

Please send letters to:
Editor: Richard Warwick
PO Box 21, Surrey Hills, Vic 3127
e-mail: editor@lrrsa.org.au

Shay locomotives at Geeveston – *Engaging the Giants*

I have thoroughly enjoyed reading LRRSA's new book, *Engaging the Giants*, by Scott Clennett. My congratulations to all those involved with the book, which is superbly produced.

I was interested in Scott's conclusions about the fate of the two Huon Timber Company Shay locomotives, 698 of 1902 and 2029 of 1907, with the first going to the Philippines after 1922 and the second going to Vanikoro in the Solomon Islands in about 1923.

Trove Newspapers provides some additional information to challenge this view. Advertisements appeared across Australia in June 1926, offering two Shay and one Barclay locomotives for sale at an auction at Geeveston that was due to be held during the week of 28 June. (For an example, see the *Huon Times*, 18 June 1926, p.6).

The advertisement must refer to the two Huon Timber Company Shays and the Barclay 0-4-0ST *The Huon* (959 of 1902) and makes it clear that they were still at Geeveston at this time. The Barclay was sent to Western Australia in 1926 for use by Millars, and I believe that it is possible that Millars sent both Shays to Vanikoro for use by their subsidiary, the Vanikoro Kauri Timber Co Pty Ltd. Certainly, evidence that two locomotives were sent to Vanikoro by Millars can be found in *Pacific forest: a history of resource control and contest in the Solomon Islands*, by Judith Bennett (White Horse Press, Cambridge, 2000).

More research is required to try to resolve this matter.

John Browning
Annerley, Qld

The Trevallyn hydro-electric scheme (LR 218)

I refer to John Browning's article about the Trevallyn hydro-electric scheme published in *Light Railways* 218, April 2011, pp 9-15 and to his letter in LR 219, p 30 concerning additional photographs of the CITRA construction railways.

In late 1954 and early 1955 I was a civil engineering student working with the Hydro-Electric Commission in Tasmania for six months and spent the last six weeks of that period at Trevallyn. Recently, I had my photographs taken during that time digitised and discovered several images depicting the metre gauge railway used for constructing the E1A tunnel through which water flows to the power station and its turbines.

The photographs are all taken at the entrance to this tunnel located at the Second Basin just upstream of the Trevallyn dam on the South Esk River. They were all taken on 18 February 1955 about four months before the power station commenced operation in June.

Michael Gourlay
The Gap, Queensland

Coal Creek Community Park (H&T) (LR 249)

It was great to see Geoff Earl had sent in some photos and description of our running day at Coal Creek on 10 April in LR 249 (Heritage & Tourist News). I would however like to make one small but important correction to Geoff's text: whilst we did provide a few adults with short cab rides, no children travelled on the footplate as this is strictly forbidden. We did however host many kids on the footplate as we sat at Top Station and perhaps this is what Geoff was referring to.

We are still having some compressor issues, however. On our last running day (12 June) we ran a full service all day using a slightly modified configuration. Being a relatively steep line we have air brakes on

Metre gauge railway track, E1A tunnel entrance, Second Basin, Trevallyn dam, Tasmania, 18 February 1955. *Photo: Michael Gourlay*

CITRA metre gauge diesel locomotives Nos 6 and 4 outside the tunnel entrance at Second Basin, Trevallyn dam, Tasmania, 18 February 1955. *Photo: Michael Gourlay*

all rolling stock, so no air means no trains. Having changed a broken valve ring in the compressor since Geoff's visit and still having no luck with the compressor I suspect the issue might be the reversing valve friction device. If there are any experts out there on Talyllyn-style compressors then I'd be happy to hear from them. The compressor is absorbing a significant amount of my time at present and is delaying the return to steam of our vertical boiler and winching engine that are located adjacent to the loco shed.

Andrew Becker
Via email

The wood trains of 17 Mile Camp and Gindalbie (LR 250)

I have read with interest Rod Milne's article, 'The wood trains of 17 Mile Camp and Gindalbie: Wood for the gold mines'. In the late sixties, I worked on Gindalbie Station. At the old town site an old timberhead frame and plenty of rusty bits of iron were all that remained. The Gindalbie Hotel was moved 5 kilometres north of the town site and became the station homestead, and still stands today.

Phil Frost
Koongamia, WA

East Bay Neck and its light railways (LR249)

The above article, by Jim Longworth and myself has generated some interesting correspondence from Simon Hutchinson, Scott Clennett and Tony Coen, for which we thank them. In particular, Simon, Scott and Tony query the identification of the vessel depicted in the photo on page 3, on opening day (Friday, 13 Oct 1905) of the Denison Canal. The photograph came from the *Weekly Courier*, Launceston, dated 21 Oct 1905 and is attributed to J W Beattie, the well-known Tasmanian photographer. The caption in the paper stated the vessel depicted (along with another photo from the same position, but facing the other direction, showing a vessel approaching) was the SS *Dover*. I did examine both photos with some care but, apart from noting that both vessels were floating on the water and appeared the same, I failed to realise they were in fact different vessels! Either the paper or Beattie got it wrong and thus we got it wrong as well.

The vessel is actually the SS *Huon*, a sister ship to the SS *Dover*. Both vessels were owned by the Huon, Channel & Peninsula Steamship Co Ltd. On opening day the *Dover* was assigned to carry the governor and his mates, whilst the *Huon* was running an excursion for the general public at 2s 6d for a return trip to the canal. My sincere thanks to Simon, Scott and Tony for pointing out the error and for providing various photographs to back up their research. My apologies to all readers – you may wish to make a pencil note in your copy of LR249. For various views of the two vessels, online images are available at the Maritime Museum of Tasmania; www.maritimetas.org .

Knowing that many readers have an interest in other historic transport apart from railways, they may wish to watch out for Tony's extensive forthcoming book *River and Coastal Vessels Trading out of Hobart, 1832 – 2015*.

Phil Rickard
Ringwood, Vic.

East Bay Neck and its light railways - Krauss locomotive and rails (LR 249)

Further to this article, the history of the Krauss locomotive, BN 4526 of 1901, and the rails and fittings is also interesting. As noted in the article, this was all purchased by the Sandfly Colliery Company Limited, and taken to North West Bay. There the locomotive was joined in early 1907 by a larger Krauss (10 ton 2-4-0 BN 5682 of 1906), both working on the Sandfly tram between the coal mines at Kaoota, and the company's wharfage, just south of the town of Margate. The rails were also used on the line (although 34 tons would only have stretched for a little over a mile), and there they joined with a mix of other types, ranging from the light 16 lb/yd to 43 lb/yd, and about a mile's worth of old T-rails, originally used on the troubled old Mersey Tram of 1872. I understand that this rail had been bought from the Government, along with about seven miles-worth of more conventional rail, from a stockpile that had been reserved for use on a never- built line to Farrell on the West Coast.

After a difficult life, the Sandfly tram closed in 1922 and Krauss 4526, together with rails for a little over 3 miles of track, apparently including some of the T-rail, was taken to the Catamaran coal mine. Four years later, BN 4526 was joined there by another Krauss, BN 4080 of 1899, ex-TGR No H4, from Zeehan. In 1935, parts of these two locomotives were used to assemble a hybrid which saw out the last four years of the mine's life, and was then scrapped The frame of H4 lies in the bush beside the old formation out onto Everalls Point, Recherche Bay.

Krauss BN 5682, and rail for another 4¼ miles of tram were sold from Sandfly for use on what became the Ida Bay Railway.[1,2]

Titles

Sir William Denison, after whom the East Bay Neck Canal was later named, was never 'Governor' as stated, at least not of Tasmania. Denison was, in fact the last of the Lieut Governors of Van Diemen's Land, as, with self-government following, the more-senior title 'Governor' was adopted, the first such appointment being of Governor Sir H E Fox Young. The name change to Tasmania from Van Diemen's Land formally occurred after Denison's term expired in 1855, although he had been supportive of the change, and it had been in the wind for some time.[3]

He was to go on to serve in the joint (concurrent) positions of Governor of New South Wales and Governor-General (of the Australian colonies) from 1855 to 1861, and as Governor of Madras from 1861 to 1866.[4]

Also, Charles La Trobe was never the Acting Governor of Van Diemen's Land, notwithstanding the statement to the contrary in *The Australian Dictionary of Biography*.[5] He was the *Administrator* from 13 October 1846 until 25 January 1847, between the controversial dismissal/departure of Lieut Governor Eardley Wilmot and the arrival of Lieut Governor Denison. He had come from Port Philip, where he held the post of Superintendent of the Port Phillip District of New South Wales. He eventually did become a Lieut Governor, of Victoria in 1851.[6]

Nomenclature

The general nomenclature of the area of the article is another example of the confusion in geographical names that grew up over the years in VDL/Tasmania. What is now generally Blackman Bay, (and even Marion Bay) was shown on many early maps as Frederick Hendricks Bay (or Frederick Hendrick Bay). Yet there was also a Frederick Henry Bay (alternatively called North Bay) to the immediate west of Norfolk Bay. As well, there was, and still is, a Cape Frederick Hendrick on the north-eastern coast of Forestier Peninsula (with yet another North Bay immediately on its western side), and a Cape Frederick Henry at the northern end of Adventure Bay on Bruny Island.

This dilemma for primary school students up until the early 1950s was partly relieved by the re-naming of the Bruny Island cape as Cape Queen Elizabeth to mark her coronation, and the dropping of the name Frederick Hendrick Bay, but not of Cape Frederick Hendrick! The more-inland North Bay disappeared from the scene at some stage, and is now exclusively Frederick Henry Bay.

The name *Blackman Bay* has also been problematical. The press references quoted in the article invariably gave this name as Blackman's Bay (or Blackmans Bay), and this is reflected in the article, although in at least one Trove reference from the period, the formal name of Blackman Bay was used.[7] Yet there was, and still is another Blackmans Bay, down the Derwent Estuary from, and a suburb of Hobart. The subject bay is Blackman Bay, as shown on the map on page 4 of LR 249, but not on that on page 5. Such are the difficulties of researchers (and of primary school students)!

Scott Clennett,
Bellerive, Tas.

1. Data from a variety of sources, including *The Sandfly Coal Mine and Tramway* (1973), *The Catamaran Colliery and its Transport Systems* (1983), and *The Needle in the Haystack, or T-rail in Tasmania* (1984), all Lindsay Whitham, Tasmanian Historical Research Association, also *Report to Engineer in Chief (TGR)*, FG Butler, 1916
2. *Krauss Locomotives in Australia*, B Macdonald, *Light Railways* No 153, June 2000
3. *History and Chronology*, Tasmanian Year Book, 1967
4. Sir William Denison - Australian Dictionary of Biography, adb.anu.edu.au
5. Charles Joseph La Trobe - Australian Dictionary of Biography, adb.anu.edu.au
6. *History and Chronology*, Tasmanian Year Book, 1967, and Walch's Almanac, various editions
7. *NOTICE TO MARINERS. Denison Canal: East Bay and Blackman Bay, Tasmania.* Daily Commercial News and Shipping List (Sydney, NSW) Thursday 29 October 1914

Field Reports

Please send any contributions, large or small, to fieldreports@lrrsa.org.au or to P.O. Box 21, Surrey Hills, Vic 3127.

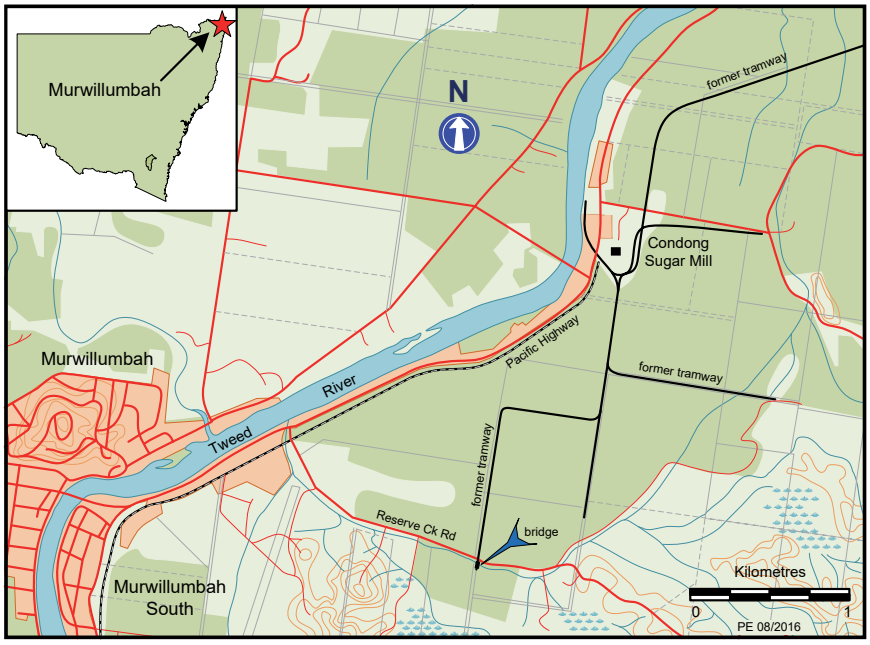
Former Condong tramway bridge, Murwillumbah, NSW
Gauge 610mm

Substantial remnants of another sugar mill tramway bridge have recently been located east of Murwillumbah (28° 19.945'S 153° 25.582'E). The bridge once formed part of the tramway network serving Condong Sugar Mill, which commenced crushing in 1880. By 1897 the mill had seven miles of tramway in use. Haulage was by horses until a steam locomotive, Krauss 0-4-0WT 2195 of 1889 'Environ', was obtained second-hand from Cudgen Mill to the north-east. The Condong tramway system reached its maximum extent of about 36 miles by 1969 (by which time eight diesel locomotives were in use), and the tramway system closed in its entirety in 1974. For a more complete description of the Condong Sugar Mill tramway system John Armstrong's *The Sugar Tramways of Northern New South Wales* (ARHS *Bulletin* 464 of June 1976, pages 118-132) is recommended reading.

The bridge is located about a kilometre along what Google maps show as Reserve Creek Road (see accompanying map). Other maps show the road as Palmvale Road, so there seems to have been a name change at some point. The images show the bridge to be a more complete version of the type reported in Light Railways 248, page 33. Sections of abandoned rail can be seen partially embedded in the ground on the approaches to the bridge. There are also former tramway rails welded on the outer edges of the bridge to assist with its use by motor vehicles. Measurements made on site indicate that the head of the remnant rail is 40mm across.

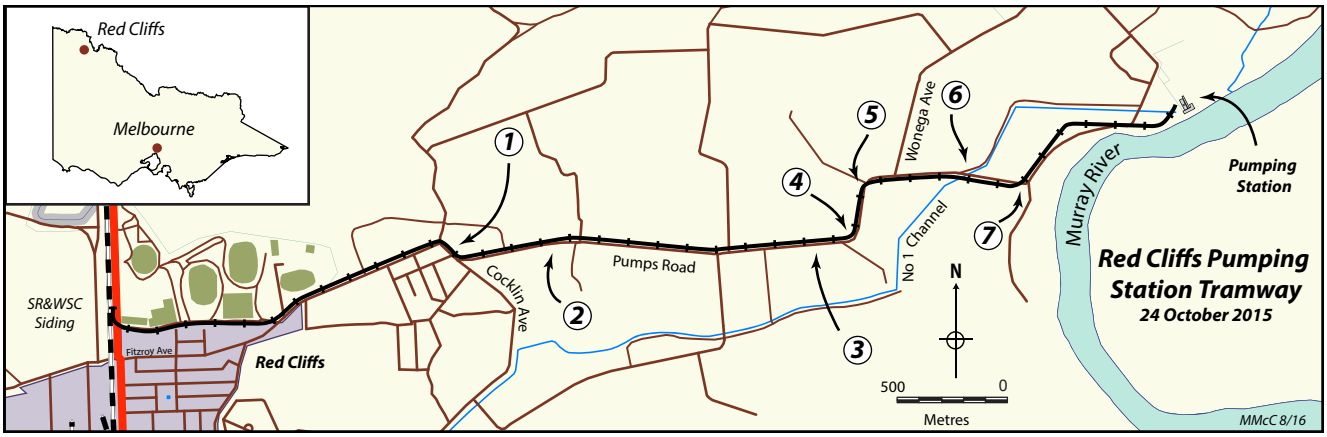
Peter Cokley 08/2016

The former Condong tramway bridge and remnant rail adjacent to Reserve Creek Road.
Both photographs by Peter Cokley, 8 July 2016.



State Rivers and Water Supply Commission
Red Cliffs Pumping Station
Red Cliffs Vic
Gauge 610 mm

The SR&WSC operated a 5.3km tramway for the conveyance coal from Red Cliffs to a pumping station on the Murray River from 1924 to 1954. For most of the distance the tramway was positioned alongside roads and, certainly in the 1960s and 70s was clearly discernible over most of the distance. A visit on 24 October 2015 revealed that much has since disappeared as



a consequence of road works, farm working, roadside maintenance and general weathering in this sandy soil Mallee country. Recent works associated with replacing open irrigation channels with piping has almost buried the most prominent relic of the tramway, the steel and concrete bridge over the No 1 water channel.

The chart below and the associated map, details what evidence could be found of this interesting steam and diesel worked tramway. All distances quoted are from the Cocklin and Pumps Road intersection.

1. Alongside Cocklin Road, near the Pumps Road corner, short sections are discernible mainly due to a difference in the vegetation along the alignment. In the past a very low formation could be seen here but this has eroded quite significantly over recent years.
2. Approximately 350m along Pumps Road a 150m stretch of scrub on the north side of the road hides one of the better preserved stretches of formation over the route. A low mound, perhaps 20cm high passes through the scrub and is easily found.
3. At a point 1.57 kms along Pumps Road another small patch of trees can be found on the north side of the road. The side of the tramway mound is visible in the scrub here although farm tractor working has destroyed any further evidence on top of the mound.
4. At 1.8 kms along Pumps Road a sharp bend to the left is found. What appears to be the formation is visible on the inside curve of the bend.
5. The tramway crossed Pumps Road at a sharp bend in the road at 2 kms from Cocklin Road. This section included a rising embankment to reach a concrete and steel bridge constructed over the main channel at this point. The formation is clearly visible on the south side over this section although a buried water supply pipeline has confused matters somewhat.
6. The No 1 Channel was crossed at this point and, until mid-1915, the substantial former tramway bridge remained in place carrying the water pipeline over the channel. In September/October 2015 works took place to fill the channel following its replacement by a pipeline. This has seen the structure of the bridge largely disappear beneath the earth filling.
7. At 2.8 kms another sharp bend to the left is found. The tramway crossed the road at this point and a low mound is visible for around 20m or so from this point.

Mike McCarthy

The former tramway bridge in use carrying a water main over the No 1 Channel near the Red Cliffs Pumping Station in 1974. *Photo: Mike McCarthy*

The bridge on 24 October 2015, partially obscured by Mike McCarthy, with only the bearers exposed above the filled No 1 Channel. *Photo: Bill Hanks*

RESEARCH

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Global Positioning Systems

Dr Iain Stuart
JCIS Consultants

This article is intended as the start of an on-going discussion in Light Railways about the use of mapping technologies of interest to those researching light railways. This first instalment serves as a brief practical introduction to Global Positioning Systems (GPS).

The underlying focus is the use of GPS by light railways enthusiasts/researchers. It is assumed that the *Light Railways* reader is looking for a GPS unit to do the following things:

- Locate a railway or feature on a railway in space so we know where it is
- Assist in the re-location of railways or features so that the places can be visited
- From data gathered, map the location of railways or associated features

My experience in all these areas is as both an enthusiast and professional archaeologist rather than a land surveyor.

Origins of satellite navigation

During the 20th century the older forms of navigation, such as compass and sextant, were supplemented by an increasingly sophisticated array of land based navigation systems using radio waves and their properties. After the launch of Sputnik by the USSR in 1957, scientists realised that it was possible to develop a space based navigation system. The resulting system NAVSAT (1964-1966) was used primarily for the purpose of targeting nuclear weapons and warship navigation by the USA. A secondary use was found in land surveying, once semi-portable doppler receivers suitable to survey work were developed and tested. From the early to mid-1970s these systems were used to resurvey existing control points or establish new control points for mapping (first used in Australia in 1975).

While NAVSAT was being implemented however, a more sophisticated system for navigation was being developed called NAVISTAR. This system had its origins as far back as 1973 and experimental satellites were launched between 1978 and 1985 with the first operational satellites launched from 1989. The USSR followed with their GLONAS system from 1982.

As can be imagined other nations are also developing their GPS systems; notably the Europeans with the Galileo navigation system and the Quasi-Zenith Satellite System for the Japanese. China has the ambitious Beidou/Compass system, launched from 2003.

How does it work?

The GPS system can be broadly divided into three components: the space component, the control component and the user component.

The space component consists of the satellites themselves. For the USA system there are 32 satellites (three spares), for the GLONAS system there are 24 satellites (three spares) in three orbital planes. Galileo is supposed to have 30 satellites but after a few disasters, has got to 8 with more planned for 2016-17. There are well reported problems with the implementation of the Galileo project.

The Japanese Quasi-Zenith Satellite System is a series of four satellites whose orbits place them in a suitable position to be received by GPS receivers in the bottom of steep valleys and 'Urban canyons' – typical of Japanese terrain. The signals augment existing GPS signals to provide greater accuracy in location. The orbit takes these satellites over Australia so they should be able to be used here as well.

I have seen satellites from all these systems on my Trimble Geo7X and on my Android phone but it is not clear to what extent they can be used. The ground control components of the GPS are stations that monitor the locations of the satellites and send necessary adjustments to information about their location and orbit that corrects and updates the signals transmitted by the satellites. The user component is the receiver, which consists of an aerial, chipset and software which receives and processes the signals from the satellites and turns them into a location expressed in a coordinate system. Itthen projects them onto a map – typically Google Maps

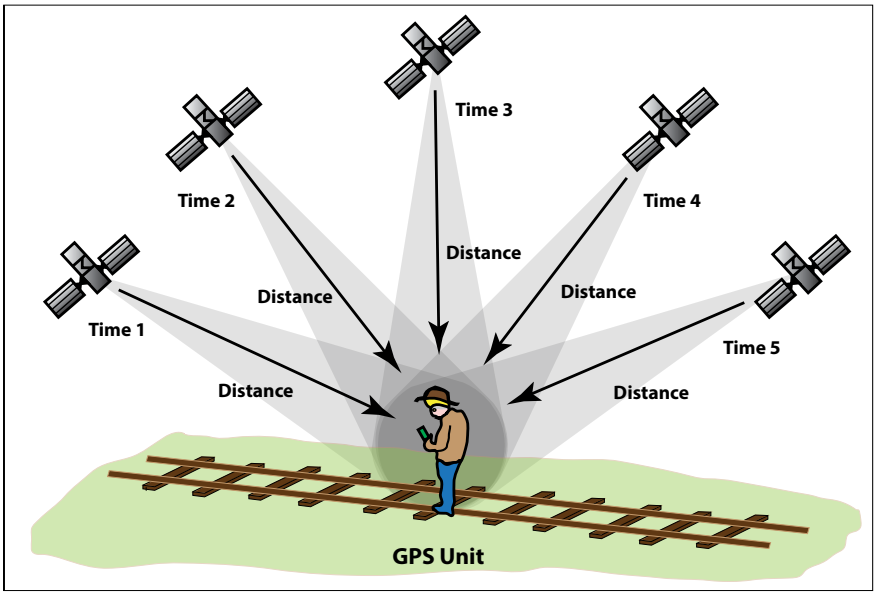
To create a GPS co-ordinate for the user, the satellite transmits a signal encoding its location and the time the signal was sent. This is read by the GPS receiver and used to calculate the location of the satellite and its distance in relation to the receiver. Using trilateration, the process of determining absolute or relative locations of points by measurement of distances by using the geometry of circles, spheres or triangles, the location of the GPS receiver can be calculated.

A GPS receiver uses the data from a minimum of four satellites to establish location on the sphere that is earth. This is expressed in the form of coordinates that locate the unit within a projection – a system of coordinates and units projected over the sphere that represents the Earth's surface.

Errors

Sources of error in the process are micro differences in time between satellites and receivers (solved by the software), obstruction of GPS signals (typically by trees) and limited visibility of satellites; multipath error where the signal is reflected off an object (e.g. building or steel structure) before it reaches the GPS antennae and atmospheric delay from the ionosphere and troposphere. Also signals to a GPS receiver can be jammed (as reportedly occurred recently in the Ukraine).

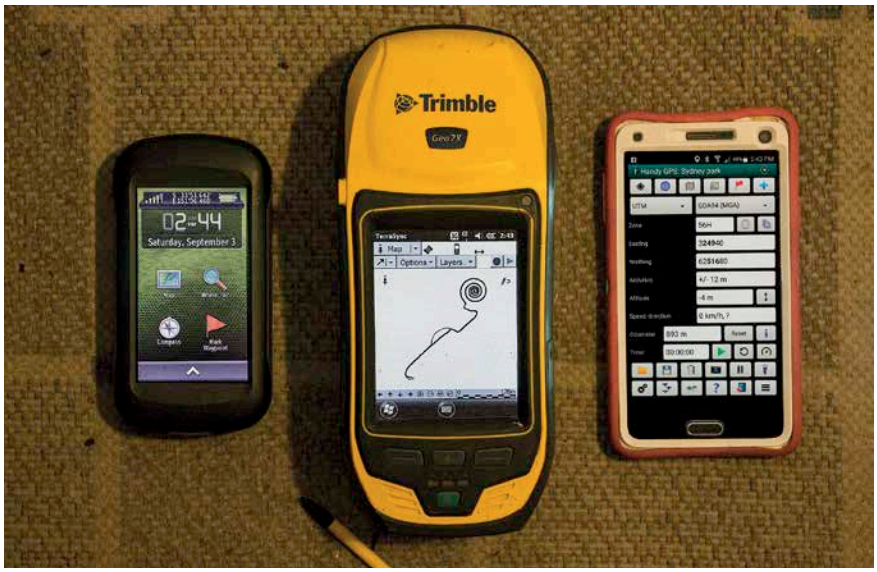
One way of filtering out all the noise in the system and detecting 'dodgy' satellite signals is differential GPS. This is where the signal received by the GPS unit is compared to the signal received at a station at a known location (Base Station) and the error from the real location is calculated. This error factor is used to correct the GPS signal in the unit. The correction can be applied in real time or after the data is collected (post-processing). This enables very precise



A general use GPS unit that a typical light railways researcher might make use of acquires signals from at least four satellites and calculates a location by analysing the signals. Generally, the more satellites acquired, the higher will be the accuracy provided.

locations to be collected (typically my Trimble is 1-2cm in horizontal accuracy). Differential GPS helps but does not eliminate issues to do with lack of satellite visibility or multipath error.
At one point the USA applied a factor that degraded the accuracy of non-military GPS units – this was called "selective availability", however this could be overcome with differential GPS and was abolished in May 2000 as the use of GPS for civilian purposes increased.

Types of GPS Receivers
There are three levels of GPS receivers commonly used for research purposes:
- Mobile Phones
- Hiking GPS units such as the Garmin E Trex models
- Survey level GPS units such as ones made by Trimble and Leica



From left to right: Garmin Montana, Trimble Geo7X, and Samsung Galaxy Note 4 (mobile phone).

Mobile Phones
Squeezing a GPS receiver into a mobile phone is quite a difficult task as there is so much demand for space and power. As well, the configuration and location of the aerial is critical to achieve good reception and there is often interference with other related functions such as signal transmission.
Mobile phones often use a hybrid location technology combining Assisted GPS, Wi-Fi positioning and Cellular network positioning. This technology was used by early mobiles (e.g. iPhone 3G) but increasingly reliance is being placed on GPS receivers that locate both the GPS and GLONAS signals. Using more satellites increases the accuracy of positions particularly in 'urban canyons' where GPS visibility is limited by buildings. It is likely that they will utilise other GPS satellites as well.
Spurred on by the commercial imperative of GPS tracking of your phone in order to sell you something through location-based services (or to track your lost phone) the accuracy of GPS units in mobile phones has improved and will continue to improve. It is difficult to get precise figures (which would vary according to satellite visibility) but a modern phone GPS should be accurate to 3-5m.
There are third party GPS receivers that can connect to your phone via Bluetooth and claim to give c1m accuracy. These are reasonably cheap but need to be approached carefully to establish their practicality – if you are in the bush exactly how many hand held devices can you carry?
Users of mobile GPS frequently report decreased battery life but this is difficult to quantify as this depends on apps open, power saving age of the battery etc. Experience teaches that Murphy's Law applied to mobile phones so that for field use it is advisable to carry a power bank and have a car charger.

Hiking GPS
These are dedicated small GPS Units introduced in the mid-1990s typically used for hiking and fishing. They were very popular with the US Military in the first Gulf war.
I started with a Garmin E-Trex unit which was small, light and easy to use. It did require however, a map to be purchased and uploaded into the unit. I bought Aus Topo and later was able to discover ways of adding other maps, notably Open Street Map, which was free. As with a mobile phone, the accuracy is around 3-5m which was good for its time when mobiles were quite inaccurate but they have since caught up with hiking GPS's in in this area.
Early on, mobiles were heavily tied to on-line apps such as Google Earth/Maps and if mobile phone coverage lapsed you lacked maps. This problem did not occur with Hiking GPS's, however Google now allows some off-line storage on phones and there are quite a few apps that allow you to store maps on your phone.
I progressed to a Garmin Montana after the E-trex died but the unit suffered from a really poorly designed software interface and really offered only the same level of accuracy as a mobile phone. It sits in my office gathering dust as, once I purchased a smart phone, I found the various apps on it more usable and the accuracy just as good.
I think the Hiking GPS is a dying breed as mobile phones are as accurate and have a better range of software and other features. In fact, I cannot think of something a hiking GPS could do that a top of the line mobile with good quality apps cannot.

Survey level GPS
For archaeology I use a Trimble Geo7X running real time correction. On a good day in the open, I can get 1cm horizontal accuracy and 3cm vertical accuracy. The Trimble unit is typical of an entry level survey grade GPS Unit. It cost about the same as a small car and you have to continually pay for software licence and corrections subscriptions. While it is suitable for my work as an archaeologist it is really overkill for most surveys of light railway sites.
Like all GPS units, it does have reception problems with canyoning and forest canopy which impact the accuracy although there are software calculations that can improve things. The GPS has a laser rangefinder integrated into the unit that can allow you to measure locations (i.e. do off sets) from outside the tree canopy in some cases. The Trimble has an on-board camera with a stunning 5mp resolution and I can geotag these fine images to an accuracy of a cm.
With this unit I can record points, areas and lines so I can use the unit to accurately record areas such as walls, chimneys mounds of soil etc. These can be downloaded and sent to mapping software – I use ArcGIS. Typically, in open areas the accuracy is 1-2cm and about the same for elevation. On a recent project in fairly forested areas I was getting 0.5m under the canopy which is fairly good for the terrain.

The Good News
When I began in archaeology in the mid 1970s we were using 1:100000 scale maps and fine pointed pencils to record the locations of sites. Nowadays we consider a position horribly inaccurate if we cannot get a location under 10m. Technology has come a long way and with it our ability to precisely locate and record light railways and associated features which in my view is absolutely fantastic and a boon to light railway research.
A follow up article covering the software side of GPS is planned for a future issue of *Light Railways.*

Iain Stuart demonstrating the set-up of a professional grade GPS – A Trimble Geo7X with an external aerial on a carbon fibre pole. This set up with real time correction would give an accuracy of 1cm horizontally and 2-3cm vertically in the open.

Heritage & Tourist NEWS

News items should be sent to heritagetourist@lrrsa.org.au Digital photographs for possible inclusion should be sent direct to Scott Gould at editor@lrrsa.org.au including the name of the location, the name of the photographer and the date of the photograph.

QUEENSLAND

FRIENDS OF ARCHER PARK STATION AND STEAM TRAM MUSEUM INC., Rockhampton

1067 mm gauge

The Purrey Steam Tram has been giving trouble lately with the steam pump, the water feed line to the boiler, and the boiler float. These have been attended to, and the only item which still has to be done is replacing the steam gauge with a new one. There have been two Sundays this month when the tram did not operate, the first being the problem with the float in the boiler and the second rainy weather.

An 1865 dated lathe donated by Aurizon has arrived at the museum. CQ Cranes delivered the lathe free of charge.

Tram Tracks Volume 10 Number 4, August 2016

WOODFORD RAILWAY, Woodford

610 mm gauge

Unfortunately the weather has been bad recently when it comes to running days, which has meant passenger numbers are well down. The weather has highlighted the need to get the ex-RM trailer enclosed passenger carriage repaired and back on track.

On Thursday 16 June the first loads of fill were delivered to build up the base for the new shed. Over 450 cubic metres of fill is required overall. As well as providing a safe and secure undercover storage for the operating locos, it will be a great morale boost to the loco restoration teams. It will also allow the Perry loco to be moved so other items can enter the workshop for major work.

The leaking stay in the Perry boiler has now been repaired and the boiler lowered back to its original position. Work is now progressing on the ashpan and trailing truck so the loco can be lowered back onto the rails. Work on the locomotive *Melbourne* is progressing well, with work concentrating on the tender so it can be moved once the new loco shed is ready. New castings were received to replace the many broken or cracked ones in the tender bogies and these are being machined.

The railway recently had some second hand concrete sleepers from Ingham tested. These met the original spec so their age has not affected their suitability for the railway.

Whilst the focus in recent months has been on the point work for the future locomotive shed, other maintenance has not been neglected. Future track days will concentrate on areas where there are higher concentrations of poor condition sleepers.

Durrundur Railway Bulletin 37:340 July/August 2016

RAYMOND MEWES, Brisbane

610 mm gauge

Three privately preserved small diesel locomotives are available for sale in south-east Queensland. They are very interesting unrestored 4wDM locomotives that were rescued from Queensland sugar mills some 25 years ago.

Motor Rail 'Simplex' 3688 was built in 1924, originally with a petrol engine. It is a 2½ ton locomotive of the type that was used by British troops in France during the First World War. It was supplied to the Colonial Sugar Refining Co. Ltd for use at their Childers Mill, and was transferred to Goondi Mill in 1932 when Childers closed. It was converted to diesel in 1957 and was sold off in 1988 after Goondi Mill closed.

Hibberd 'Planet' 2333 of 1940 was supplied to the River Ouse Catchment Board in Yorkshire and at some time was in the ownership of Cementation Ltd. It was returned to Hibberd's London factory and refurbished before being dispatched to The Engineering Agencies in Bundaberg. It was used in Queensland at Plane Creek Mill, Sarina, and was sold in 1991.

Ruston & Hornsby 371381 of 1954 was built to 1 ft 8 in gauge with an exhaust gas conditioner for use underground by the Tannymorel Coal Mining Co. near Warwick in Queensland. After Tannymorel No.4 Colliery closed, the locomotive was sold to Plane Creek Mill and converted to 2 ft gauge. It was sold along with the 'Planet' in 1991.

These three locomotives have very interesting histories and are all small enough to make them very suitable for a 'garden' 2 ft gauge railway. Preference will be given to them being purchased as a job lot. Any person seriously interested may contact the owner at anakin132@hotmail.com or on (07) 3273 2014.

John Browning 8/16

HARD TIMES MINE, OUTBACK AT ISA, Mt Isa

610 and 1067 mm gauges

Underground tours take place three times each day at this artificial mine at the Mt Isa tourist information hub. It is not clear if any locomotives are below ground although several units previously observed on this site are no longer apparent to the visitor on the surface.

On display near the poppet head is 3 ft 6 in gauge Gemco 'Hauler' 4wBE locomotive 63 (3B/7914-4B/7941/82/70 of 1970). Three similar locomotives are stored out of use in the open elsewhere on the site, and access was allowed to enable the noting of the detail on the Gemco builder's plates.

No.2 (1633-34/108/71 of 1971) has a crudely-built cab and according to a 1983 plant list was previously numbered 78. The likelihood of such a renumbering should be considered in the light of the fact that the Mt Isa Mines number usually consisted of steel numerals welded to the frame. The other two locomotives are number 88 (2057-8-135-75 of 1975) and H5 (2063-4-154-75 of 1975). The number H5 indicates that this locomotive was initially put to work in the Mt Isa Mines Hilton Mine.

Also displayed on site is a wide variety of rolling stock, both 2 ft and 3 ft 6 in gauge. Some items of rolling stock were previously displayed at the Frank Aston Rotary Park in Mt Isa.

John Browning 8/16

VISITOR CENTRE, OUTBACK AT ISA, Mt Isa

610 mm gauge

On display inside the visitor centre is an impressive steam outline petrol locomotive that was used at the old Mt Isa rodeo grounds, Kalkadoon Park, until 2008. It is an American-style 4-4-0 without tender, numbered 2 and carrying the names *Smokey* and *The Iron Horse*. It was built by Kemco Engineering Pty Ltd in Mt Isa in 1993.

John Browning 8/16

KEMCO ENGINEERING PTY LTD, Mt Isa

610 mm gauge

Stored in the works yard is the original Mt Isa rodeo locomotive that was used at the Kalkadoon Park grounds from 1963 to 1992. The 2-2wPM steam outline locomotive was built at Barkly Motors, Mt Isa in 1962, and an attached plate states it was built by W Ghezzi and K Casey. It is a small unit typical of many produced in that era for use at drive-in theatres and other amusement venues. Details of the locomotive were published at the time in the General Motors-Holden's dealers' in house publication, *Pointers*. After it was replaced, it was privately stored for a while and is now in the yard at Kemco Engineering, where the second locomotive was built. The engine has been removed.

John Browning 8/16

SEA WORLD, Main Beach, Southport

610 mm gauge

With the railway at Sea World out of use since at least 2008, the three locomotives have recently been disposed of. The blue 2 ft gauge 0-4-2 steam outline diesel locomotive built in 1975, modelled on Queensland Railways A10 No.6, was noted with its tender at a storage yard in Lawson Street, Nerang, in June. It is believed to belong to Greg O'Neil, who deals in amusement park rides. It is thought that this locomotive is to be sent to Goulburn, NSW. Earlier in the year, the steam outline rebuild of a 1942-built Caldwell Engineering 4wDM, numbered 99, was consigned by road transport from the same yard, reportedly to Sydney, possibly initially to the former Adventureland site in Edmondson Park.

The second Sea World A10 replica, built in 1985, which had been on display at Sea World in recent years, is reportedly at Warner Bros Movie World, Oxenford, where it is supposedly to be Americanised for static display.
Mark Gough 5/2016; Peter Cokley 5/2016; Paul Hollibone 6/2016; John Browning 5-6/2016

QUEENSLAND MINING JUNK, Croydon and Forsayth
610 and 1067 mm gauges
Member Norm Houghton was recently in Queensland travelling on the Normanton to Croydon *Gulflander*, plus a trip on the *Savannahlander* from Forsayth to Cairns.
While he did not see much of light rail interest, he did find some mining junk at Croydon and Forsayth. There is a collection of mining relics next to the government office in Croydon that includes a skip. What is of interest is that the skip seems to have been fabricated from a much longer frame and cobbled together with a joining strip. The notation on the frame says 'Stockton MC', the meaning of which is unknown.
The Forsayth material is scattered in the town in two places. One 'museum' is at the west end of town and comprises a collection of nondescript wheels and bins, some of which do not seem authentic, just kibbles etc. placed onto wheel sets. The other collection is at the railway station where a relic from the Nil Desperandum Mine is situated. One of the small QR diesel locos is also on display there.
Norman Houghton 7/8/2016

NEW SOUTH WALES

O'NEILL'S ADVENTURELAND, Edmondson Park
610 mm gauge
John Dunlop built X759, a 4-4-2 steam-outline petrol locomotive, for Green's Motorcade Park, Leppington, NSW, in about 1974. It is understood to have moved to O'Neill's Adventureland, a now-closed small theme park in Camden Valley Way, Edmondson Park, NSW, by 1985. A recent report has it still stored, in poor condition, under trees on the Adventureland site, which is now apparently used for the storage of amusement equipment.
It has been reported that the steam outline rebuild of a 1942-built Caldwell Engineering 4wDM numbered 99, from Sea World in Queensland, was sent here in the early part of 2016.
Paul Hollibone via John Browning 6/2016

PETE'S HOBBY RAILWAY, Junee
610 mm gauge
Junee Shire Council recently granted Development Application consent to long-time LRRSA member Peter Neve OAM for the construction of a 500 metre long circular rail track, including a reversing loop and storage shed on his 1 ha rural property at Junee in southern NSW.
Hunslet 0-4-2T locomotive B/No.11878/1915, along with a 48 hp Ruston diesel of 1955 vintage,

Top: *Three Gemco battery-electric locomotives stored at the Hardtimes Mine, Outback at Isa. That in the front, (No.2) is Gemco 1633-34/108/71 of 1971. The other two are No. 88 (2057-8-135-75 of 1975) and H5 (2063-4-154-75 of 1975). Photo: John Browning* ***Centre:*** *On display at Hardtimes Mine, Outback at Isa, is battery-electric locomotive No.63 Gemco 3B/7914-4B/7941/82/70 of 1970. Photo: John Browning* ***Above:*** *Underground navvy car on display at Hard Times Mine, Outback at Isa. Photo: John Browning*

have been comprehensively overhauled by K & H Ainsworth Engineering Pty Ltd of Goulburn. In addition, one of four 4-wheel carriages has also been overhauled and fitted with a handbrake.

Two other steam locomotives are on site – a 1938-built 0-6-2T Perry (currently being cosmetically restored) and an 0-6-0TT 1900-vintage Fowler, which awaits restoration if funding becomes available.

The railway will be operated under the "hobby railway" provisions of the Rail Safety National Law which exempts a railway that: is privately owned and operated as a hobby; is operated only on private property; does not operate on or cross a public road; is not operated for hire or reward, or provided on hire or lease; and to which members of the public do not have access (whether by invitation or otherwise). Junee Shire Council has also included these requirements in the Consent.

Despite extended bad weather, by mid-September approximately 60 metres of track had been constructed, including a level crossing through a driveway. All rail required for the project is on site.

The railway is not yet operational, but visitors will be welcome to view, and photograph Pete's Hobby Railway from the street at times that may be advertised (such as during Junee's Rhythm 'n Rail Festival, which is usually held in March each year).

More details can be found at the PHR webpage: < www.PetesHobbyRailway.club>, and on the Facebook page Pete's Hobby Railway.

Information supplied by Peter Neve OAM, 7 September 2016

Top: *2 ft gauge Hunslet 0-4-2T locomotive (B/No.1187 of 1915), which has been completely overhauled by Ainsworth Engineering, at Pete's Hobby Railway, Junee. Photo: Peter Neve OAM* ***Above:*** *Arrival of X1 tram body at the Walhalla Goldfields Railway storage facility at Yallourn, 9 August 2016. It is intended to rebuild it as a diesel-hydraulic railmotor. Photo: Michael Leaney*

VICTORIA

WALHALLA GOLDFIELDS RAILWAY, Walhalla

762 mm gauge

The Walhalla Goldfields Railway is celebrating a record result by carrying just shy of 36,000 passengers for the 2015/2016 financial year which is an 11% increase on the previous year, and a 28% improvement on the 10 year average.

"The Walhalla Goldfields Railway has cemented its place as the second busiest Tourism and Heritage Railway in the state after Puffing Billy" said Michael Leaney, President of the Walhalla Goldfields Railway. "It's a wonderful achievement. Many were sceptical that a little mountain railway tucked away in a remote valley which has been totally rebuilt from nothing over the past 25 years, could be such a huge tourism success story."

The Walhalla Goldfields Railway was formed in 1991 to rebuild the spectacular line into the historic gold mining town of Walhalla. The railway was completed into Walhalla in 2002 and operates on Saturdays, Sundays, Wednesdays, school holidays and public holidays. Like most tourist railways it is managed and run by volunteers.

On 31 August the last train of the day - seen here at Menzies Creek on the Puffing Billy railway - seems to be grossly overpowered with 12A, DH59 and D21. Following its recent re-wheeling D21 was sent out on a ballast train, but failed between Lakeside and Gembrook. DH59 was sent to rescue it. For convenient scheduling purposes, both the diesels were attached to the 3:45 p.m. Emerald-Belgrave train. Photo: Mike McCarthy

The railway puts its growth down to recent changes to the timetable to provide a better service for visitors in school holiday periods and improvements in the visitor experience. The railway has also become an active player in the local tourism industry by supporting the work of the local tourism association and peak tourism industry bodies, as well as developing a range of new events and facilities to attract visitors. For example, in mid-September, the railway will host the Gippsland Tourism Conference in conjunction with Destination Gippsland at the newly upgraded function room at Walhalla Station.

To develop the Railway further it needs to commence seven day a week operations with a new railmotor. Two ex-Melbourne X1 tram bodies have been purchased, with the intention of converting one into a diesel-hydraulic railmotor. This project will lead to the railway increasing patronage to more than 60,000 passengers per annum. The railway is currently seeking funding to bring the X1 railmotor project to reality via Regional Development Victoria.

On Sunday night 17 July a log cabin behind Walhalla station was destroyed by fire. It had been built in the 1970s as dormitory space for volunteers working on the railway in the days of Ron Kane. After Ron's attempt to rebuild the railway came to an end, the building has changed hands a few times and was converted into accommodation for visiting tourists. It is believed that an electrical fault connected with the solar power system caused the fire.

The railway recently signed a lease agreement on a secure building at Yallourn, which will be used for storage and restoration work, particularly on the DH locomotives and X1 railmotor project.

On wagon 1NQRW, the existing longitudinal seating arrangement has been altered so that all seated passengers will now be able to view both sides of Stringer's Gorge.

Media Release Thursday, 28 July, 2016, *Dogspikes and Diesel* July 2016

PUFFING BILLY RAILWAY, Belgrave

762 mm gauge

June passenger numbers were again exceptional and continued the strong trend of previous months with 28,222 passengers carried - another all-time record for June. Total passengers for the financial year totalled 417,155, an increase of 67,384 or 19% above the previous year. The railway has grown by over 34% during the past two years and broken all time monthly records on 22 out of the past 24 months.

With the result of the recent federal election resolved, the $5.5 million commitment to the proposed Discovery Centre at Lakeside will be met. Capital expenditure approved for the new financial year includes ongoing work on garratt locomotive NGG16 129, further track upgrades, a new set of rolling stock and design work for the Discovery Centre, as well as making provision for a new IT software system and other minor projects.

Day out with Thomas (DOWT) events are moving from Emerald to Gembrook, with effect from October this year. There are several benefits in making this move, mainly the additional space available and the ability to handle more people through the event, per day. As there will be infrastructure available at Gembrook, it has also been decided that the Santa Specials will also re-locate to Gembrook, effective the 2016 season. The format of the day will change; the day will be similar in approach to DOWT and the expectation is that Santa Specials will also handle more people per day than is currently the case.

Diesel-mechanical locomotive D21 (ex-Tasmanian Government Railways V12) was returned to service late in July after being fitted with a new set of wheels. NA class locomotive 6A is back in service following an extensive overhaul.

The 'Commissioners Trains' will operate again in 2017 on Saturdays 8 April, 3 June, and 2 September. These include haulage by the Climax, haulage by an NA, double-heading with Climax, and double heading with two NAs. These trains run from Belgrave to Gembrook and give the opportunity to inspect workshops, the museum, and storage areas. Morning tea and a spit roast lunch is provided.

Monthly News August and September 2016, PBR website Engineering Blog.

TASMANIA

Tasmanian Association of Tourist Railways

The Tasmanian Association of Tourist Railways is again organising an eight-day tour of the island from 11 to 18 March 2017 next year.

Tasmania is becoming a drawcard for those seeking a wilderness experience in a state famed for its food and fine wines. The tour packages these with Tasmania's industrial and agricultural heritage with visits of up to six preserved operating 610 and 1067 mm gauge railways, and some of Tasmania's most popular attractions. Some of the highlights include:

- SteamFest and the Redwater Creek Railway at Sheffield.
- A cruise on the Gordon River.
- Travel from Strahan to Queenstown on the World Heritage listed West Coast Wilderness Railway.

- A visit to The Wall at Derwent Bridge, a depiction of Tasmanian history carved in local timber.
- Free time in Hobart with options to visit the Ida Bay Railway or Port Arthur.
- Queen Victoria and Launceston Tramway Museum.

Guests will travel in a 32 year old Denning (one of Redline Tasmania's heritage bus fleet), driven by a former steam and diesel engine driver of the Tasmanian Government Railways. Tour price of $2,990 includes eight nights' accommodation and breakfasts, two lunches and six dinners.

Guests need to book their own transport to and from Launceston and accommodation for the night of 10 March.

For enquiries and the tour brochure, visit www.tour.greatrailexperiencestasmania.com

Rod Prince, Committee Member, and President Tasmanian Transport Museum 25/8/2016

SOUTH AUSTRALIA

PORT MILANG HISTORIC RAILWAY MUSEUM, Milang

610 mm and 1067 mm gauge

At the August meeting of the S.A. Group of the LRRSA, news of developments at the SA light railway centre at Milang was given, showing a plan of the 2 ft gauge track now being extended from the station building towards the turntable, and a video of the BEV (battery-electric vehicle) on the track laid the previous week. The centre will not be running public trains as the insurance is not affordable. The 2 ft gauge railway has been exempted from the rail safety act on the basis that it is classed as a static display. However the exemption allows for trains to be moved before and after public opening hours, to re-position the stock from storage to display areas, and for maintenance purposes. A Malcolm Moore Fordson-engined rail tractor is being restored to running order at the museum. It had previously been used on Price jetty on the Yorke Peninsula, and is on loan from the National Railway Museum.

Peter Lucas, and Record of the meeting of the SA Group, LRRSA, Thursday 4 August 2016

WESTERN AUSTRALIA

BENNETT BROOK RAILWAY, Whiteman Park

610 mm gauge

The railway had one of its two best Ashley days. The move from Thomas the Tank engine to create the railway's own identity, Ashley, has been proven the right decision. The adoption of new media, for example, Facebook, to help promote activities, is opening new doors.

The Archive and Library of WALPRA now have had over a full year's work applied to bringing the collection standard well above what is normally expected for a hands-on Tourist and Heritage operating railway collection. The railway is very fortunate to have WALPRA as a partner with other Whiteman Park Heritage Transport groups to use the museum collection software MOSAIC. The usage of a common software will enable groups to share information and to collaborate in various ways when it comes to recording collections held by each group, and also share in the processes of assessment and evaluation of heritage items that are catalogued.

Ashley is continuing to run the vast majority of the midweek services with higher than normal final drive oil usage the biggest lingering issue. The Fowler has been having a rest over the steam season, only once subbing in for the BT1 Perry for a couple of trips when the loco manager had to leave early. The railway is still planning and organising the overhaul of NG15 123 and hope to start cleaning and preparing the boiler shell in the next few weeks. Fabrication of the new ash-pan will soon begin. The Gemco is still out of regular service with the Ashley days its only major outings through the year.

The 0-6-2T Perry is having its connecting rods cleaned and painted and the rods will be installed as soon the middle road of the locomotive shed concrete floor is sealed and painted to give crane access. The cab floor has been replaced with new laser cut checker plate and workers plan to continue reassembling the chassis when priorities allow. Workers have been taking the opportunity while the Dorman Planet out of service, to start levelling the cab floor to eliminate the big hump over the gearbox.

Bennett Brook Railway Newsletter

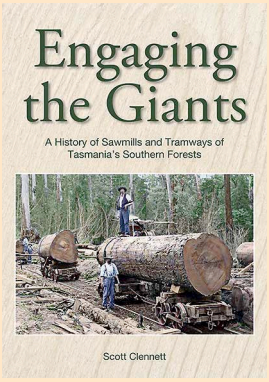
Amongst their exhibits the Port Milang Historic Railway Museum is this 3ft 6 in gauge Fordson-engined Malcolm Moore rail tractor. From 1954 it was used by the South Australian Harbours Board on the Price jetty on the Yorke Peninsula, SA. Prior to that, it is believed that it was used by Adelaide Cement Co. at Klein Point, SA from 1940. It may have been built in 1940, but the frames have much in common with TACL tractors of the 1920s. It is on loan from the National Railway Museum where it has been since 1971. The magneto and carburettor have been refurbished and the tractor can now be started and run. Further restoration is in progress. Photo: Peter Lucas

New from LRRSA Sales ...

Engaging the Giants

A history of sawmills and tramways of Tasmania's Southern Forests

By Scott Clennett — Published by the LRRSA



Hard cover, 240 pages, A4 size, 170 photographs, 21 maps, bibliography, references, and index.

Describes a complex series of timber tramways which operated in southern Tasmania during the period 1850 to 1974. It covers the area from Franklin (45 km south of Hobart) to Cockle Creek - the most southerly settlement in Tasmania, and includes Bruny Island. Details of the ships and barges which carried the products of the sawmills are given, together with an insight into the living conditions and the innovative methods that were used to solve many problems. Gauges of the timber tramways varied from 2 ft 6 in to 6 ft, but the most common gauges were 3 ft 6 in and 4 ft 6 in.

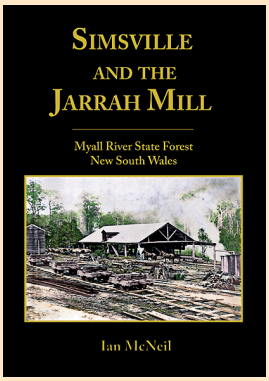
Over a dozen steam locomotives were used, including two Shays, and many of ingenious local manufacture. Three Hobart engineering firms supplied steam and internal-combustion locomotives (of unusual designs) to many of the sawmillers.

The maps, prepared by Mike McCarthy, show the tramways, mills, roads, waterways, and contours.

Price $60.00 ($45 to LRRSA members) **plus postage.** Weight 1420 gm

Simsville and the Jarrah Mill

Myall River State Forest, New South Wales



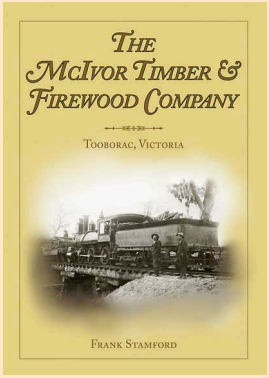
By Ian McNeil
Published by the LRRSA
Soft cover, 96 pages, A4 size
55 photographs, 12 maps and diagrams, references, and index.

The history of a 3ft 6in gauge tramway and sawmiling operations at the village of Simsville, near Stroud. The tramway used three Climax geared locomotives.

Price $29.00 plus postage
($21.75 to LRRSA members)
Weight: 490 gm

The McIvor Timber & Firewood Company

Tooborac, Victoria



By Frank Stamford
Published by the LRRSA
Soft cover, 104 pages, A4 size
104 photographs, 23 maps and diagrams, references, and index.

The history of a 5ft 3in gauge tramway from Tooborac to Mitchell's Creek, Puckapunyal, Moormbool West and Cherrington.

Price $30.00 plus postage
($22.50 to LRRSA members)
Weight: 490 gm

Postage and packing: Within Australia, up to 250gm $3.50; 251 to 500gm $6.60, 501 gm to 3 kg $15.00, over 3 kg to 5 kg $18.70
Send to: LRRSA Sales, P.O. Box 21, Surrey Hills Vic 3127.
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www.lrrsa.org.au

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