

Reading Society of Model  
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# The Prospectus

August 2018



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The destroyer USN Cassin Young, built in 1943 and in service until 1960. During the war in the Pacific it survived two Kamikaze attacks. Charleston Navy Yard, Boston, USA, 4 July 2018. Photo John Billard

**THE BEST JOB  
THE AUTONOMOUS ENGINE  
PHOTO ANALYTICS  
RAISED TRACK SPEED LIMITS ON TRIAL**

Les is having a break this month.

## PONDERINGS

by 61249

Getting the sack is never a pleasant personal experience, and running Thameslink is still, when I look back, the best job I ever had. Just the day job was fun and I loved the contact with the operating staff and the customers. We had some really gut-wrenching moments operationally, with two derailments of passenger trains, (both on the same set of points turning from Farringdon towards City Thameslink), a bank slip, wires down in the central section, gangs fighting each other in the King's Cross booking hall, a station fire, fatalities, and SPADs. I could go on – but that was just in 2 short years!

I learnt a lot about our customers and the service, lessons which meant I would not design the railway it has been, nor operated it the way we intend to operate it now, or the Elizabeth Line (Crossrail). Because it is topical it is worth looking at a couple of these events. My experience of Thameslink taught me that small is beautiful. And simple is good too. The evidence for this is that whenever Thameslink lost the central section of tunnel from Kentish Town to Blackfriars, we operated on “Bedpan” principles into ST Pancras. Our measured reliability immediately went up by at least 5 percentage points, from 90 to 95% of trains within time to 5 mins. Fundamentally, running from Bedford to Brighton and round the Wimbledon loop was a way of inflicting disruption from Gatwick on passengers in Luton. A passenger taken ill at St Albans, could inflict delay on thousands of people in the peak who only wanted to go from Croydon to King's Cross. It does not make a lot of sense.

My wager is that if we look at the world's record-breaking railways, they have some common characteristics, one of which is simplicity in the service concept. It may be moving a lot of iron ore from quarry to port, or thousands of commuters through Tokyo, or staying in Japan, high speed services. But do they mix them the way we do? Emphatically no. Each Tokyo commuter line is end to end, with minimal junctions, if you want to change route you change trains at convenient platform interchanges. Hong Kong is the same. Do Australian Iron Ore railways try and run passenger services? Of course not. In the UK, one single car shuttle to Felixstowe stops many freight trains from serving the port. Which approach best serves the customer I ask?

This week I read that the world's first autonomous freight train has just delivered 28000 tons (yes n one train!) of ore to an Australian port.

In the UK we run most of our railways as mixed traffic enterprises, and our concept of passenger convenience is that the through journey is worth a lot. The

impact of this on service design is that we conceive Thameslink currently as running train from King's Lynn to Brighton, and Rainham Kent to St Albans. Peterborough to Brighton. Since these services all run alongside others with an equal claim to track space, changing the timetable changes everyone else, and makes massive complications. Little wonder that it goes wrong. On my model, Thameslink does what it is really there for, - a metro service from North to South and vice versa. In my day, less than 10% of Thameslink customers went right through London, they changed, so design a railway to make it easy for them. To get from Circle Line to Thameslink at Farringdon, you have to cross a bridge, yet the space is there to interweave the tracks and give cross platform connectivity in both directions as in Hong Kong. I would have a great interchange at West Hampstead, and Croydon, and run a simple Metro style Thameslink between them. Similarly Crossrail would terminate at Ealing Broadway and Stratford. The trains would be Metro trains, no toilets, lots of doors, platform edge doors throughout and very high capacity without the compromises on seat comfort and layout for longer journeys, and mechanically set up for high acceleration slow speed operation over curvy railways, rather than higher speeds on the straight GWML.

One more example taught me a lesson. The Underground had a strike, and Thameslink became the only rail route from North to South. The management all got out of the office to help customers, and I was posted to the seriously inadequate thin platforms at King's Cross. There I saw a 20 minute delay happen under my nose, and I was powerless. As a very crowded train was leaving, a lady with a pushchair tried to join after the door alarms had started. A passenger at the door she chose helpfully used the emergency device, fearing the train would start with the door open and a push chair wedged in. Our operating procedures for such a circumstance were a compromise, bearing in mind that the same train also called at Wivelsfield (unmanned) in the dead of night when the driver was the only person around. He knew that had an emergency call, and the light outside the vehicle told him it was from coach 7 of 8. It is his job to reset. He immediately gets out of the cab and tries to walk down the train using a crowded platform that means he takes at least five minutes without answering customer queries on the way. Once he is out of the cab we have lost all communication with him so even if we reset for him, we cannot turn him round. The train stood there for 20 mins before it eventually moved. A good Metro operator would have got that train moving in 30 seconds with the right staffing level and the right procedure. It will take "big Rail" mixed traffic operators another decade to get to the required level of sophistication to achieve this, and I learnt the lesson in 1995!

In City Thameslink we had the first station to be built in London after the

King's Cross fire. Horrendously complicated, if we had just one customer the control and safety system needed four staff. If it was closed just one person was allowed. The result was that it was the last station to open on the route, and the first to close, somewhat limiting its impact on a safe railway. Our fire planning and exercises all were based on the worst case scenario, two 12 car trains in the platforms, full of commuters. Evacuation and direction to the surface were practiced with care. The only station fire I have ever experienced was where? You guessed it, at City Thameslink. It was in the equipment room that at most stations would be a simple power distribution box on the wall in an office. It was at 01.00 hours, with just one person in the control room, alert of course, and who followed the alarm indication to some smouldering cable. He judged it to be a minor fire, and returned to the control room to call the fire and rescue service. It would have been good if he had shut the door, but in his haste he neglected to do so. This let air to the fire, and worse still, isolated the sprinkler system. Since the station was shut the front door was locked, the emergency service radio was incompatible with ours etc. etc. The list goes on, and the damage shut the station for 6 weeks.

You can see why I love simple railways and simple technology!

## **THE AUTONOMOUS ENGINE - A WARNING TO THE COMPLACENT!**

**by Ivor Lesson**

(Name and Address Supplied – Ed.)

Most engineering-minded persons in the RSME will be aware of the recent developments in the autonomous or, as it's more commonly called, self-drive car (and lorry, I believe). They may also have read in the news of some accidents, occasionally fatal, which resulted from either a malfunction of the operating system or lack of comprehensiveness in that system. What they may not be aware of, however, is that this concept has recently been applied to 7 1/4 inch gauge steam locomotives.

A date fixed in my mind is Friday 13th. My mother, who hailed from Northampton, allegedly the most superstitious town in England, would not have ventured from her bed on such day, but (as Shakespeare would have said) I, who am of more stern stuff made, to the north ventured, to flaunt my big green engine, alas. I was accompanied by another RSME member who relatively recently relocated to his Yorkshire motherland and answers to the name of Bagot Coalman. For those of you fortunate not to have studied the Lingua Franca (French to the likes of me) at school, Bagot is pronounced as Baggio. The 't' is silent.

By the time we had unloaded and steamed-up rolling stock to haul was as rare as rain this summer, but we eventually managed to purloin two wooden-bodied carriages and set off to discover our new railway world. As the heat of the afternoon surrendered to the more temperate evening, locos moved to disposal and we collected instead four steel-bodied replica Mk 1 carriages. An entirely different proposition if one wants to hear a bit of chuff.

A few words about The Railway. It's significantly longer than Reading with a twisty downhill out and a twisty uphill back and for the lower part the two tracks run mostly side-by-side. They split at the bottom leading to a sharp right hand 180-degree curve of about 150 foot radius, which feeds a series of points servicing platforms at the lower station. From there the climb begins, passing across a number of public road and footpath crossings to the main station and yard at the top.

About 7 o' the clock we were proceeding downhill, approximately two-thirds of the way to the bottom. Bagot was in the driving seat with me as guard at the rear. Our single passenger was a well-known member of the commercial model engineering fraternity, who will remain anonymous. I had just placed my mobile in my pocket having told the Home Controller all was well. Perhaps in the light of my mother's predilections this was an unwise act for no sooner had I done so I heard a shout from the front and looking up somewhat surreally observed the naked back head - a view never seen before by me - disappearing rapidly around a bend in the track and out of view behind some trackside bushes.

For those of you familiar with Tom Rolt's book "Red for Danger", we awaited "the distant rumble of disaster and the angry glare staining the crimson sky". Well I exaggerate about the crimson sky, but I swear I heard the distant rumble. However, in the meantime Bagot took off in fast pursuit. I stood numb wondering how the engine could have broken free from the tender, while our anonymous passenger remarked I should be careful as the engine might just negotiate that curve and the maze of points and head back towards us.....nothing came and I never expected it to.

Mr Anonymous and I ambled down to the station; too dazed even to think about protecting the train. As we approached we saw the loco upright but derailed in platform 3 with Bagot leaning over it as if trying to resuscitate an injured child. Desperately he was trying to remove the fire, but fortunately at the time of the break-away there was lots of water in the boiler. The loco was filthy black all over, especially the wheels which were caked in a black dust.

When Bagot arrived at the station he saw the engine exiting the 180-degree curve. It is incredible how an unloaded locomotive with a partly open regulator will accelerate and he estimated the speed to be 20 to 25mph. Now Bagot Coalman becomes the hero of the day and lives up to his name. He picks up one

of the bags of loco coal standing on the platform and throws it in front of the engine. It was like an explosion: the plastic bag was literally shredded and the coal was scattered for about 20 feet along the track. But it derailed the loco and put an end to its flight and a potential disaster.

The damage? The right-hand front steps and the left hand rear step rivets sheared; incredibly lucky under the circumstances. Lucky, not just because of the eventual slight damage to the loco, but also the “containment” of what in effect was a quarter ton “projectile”. I dread to imagine the consequences if it had hit another train or, much worse still, had struck a person, especially a child, at one of the crossings.

The root cause? As the locomotive had run for years without any such mishap my initial reaction was part of the drawbar system had failed mechanically. But not so. Possibly because of the unusually heavy load we were pulling and the somewhat uneven beat of the engine the drawbar pin had slowly ratcheted upwards and eventually the drawbar was free. One could argue that the pin should have been longer and secured by an R-pin, but I now recollect how, on a number of occasions, a member of another club I belong to advised me to fit a chain between engine and tender as a safety precaution. Like a schoolmaster admonishing a reluctant, lazy pupil he reminded me again that very Friday evening over coffee.

## PHOTO ANALYTICS

**A new series where  
Wolverton Pug  
looks at some  
pictures taken by  
the Editor  
No 1. 87010 at  
Preston in 1974**



The class 87s revolutionised the West Coast Main Line services. They were introduced in June 1973 when 87001 is reported to have worked a Longsight to Willesden Freightliner service. They were built to supply power for the Crewe to Glasgow electrification scheme which initially was extended to Preston from Weaver Junction on 23<sup>rd</sup> July 1973, finally reaching Glasgow Central in Spring 1974.

35 new 100 mph 5,000 hp locomotives were built at Crewe Works to replace the class 50s which had been running in pairs between Crewe and Glasgow since new. These new electric locomotives achieved Euston to Glasgow in 5 hours and by the autumn had increased the passenger traffic by 50% (the 'sparks effect'). The flagship service being the Royal Scot. This allowed the class 50s to be cascaded to the Western Region.

The class 87s included considerable improvements over the older electrics of class 81 to 86 all of which were to be refurbished including new bogies for the class 86/2 passenger locos. The 87s were fitted with multiple working jumpers and the idea was (pre sectorisation of course!) to utilise them on freight traffic overnight. They put in sterling work until replaced by the Pendolinos from 2001.

Having been made redundant and still with life in them 21 have since been bought ETL/Europhoenix, overhauled and modified and are now working in Bulgaria. 11 have been scrapped. 87001 is in the National Railway Museum. 87002 is used by GBRf on the national network and retains its name 'Royal Sovereign'. 87035 which was used on freight being fitted with thyristor control equipment is now at Crewe Heritage Centre.

They were all named during 1978 and 87010 was named King Arthur and is now in Bulgaria.

## New Raised Track Speed Limits

Following a recent incident, the trustees have decided to introduce the policy below with immediate effect on a trial basis. This will be reviewed at a forthcoming trustees meeting.

When the current raised track speed limits of 8mph for straight track and 5mph for the curves were set, most locomotives were steam. Today, most locomotives are electric which can accelerate faster and often have a higher top speed than steam.

Since the limits were set, the number of events using the raised track, including birthday parties has increased significantly. With higher speeds the probability of an accident, and the wear and tear on trolleys and track increases. The braking efficiency of the passenger trolleys has not changed over this time. We have received several adverse comments about the speed at which some members drive. Not all passengers are comfortable with speeds above 5mph.

Taking account of the above, the lap times and speed for the raised track have been reviewed and it is recommended that for birthday parties, public running etc:

- **The optimum lap time should be 2mins 10secs**
- **The speed limit should be set at 5mph for the whole track. The higher limit can still apply for club running.**

## AUGUST DIARY

Saturday 4 <sup>th</sup>	Birthday Party	11:00 to 13:30
	Birthday Party	14:30 to 17:00
Sunday 5 <sup>th</sup>	Public Running	13:00 to 16:30
Saturday 11 <sup>th</sup>	Club Running	11:00 onwards
Sunday 12 <sup>th</sup>	Birthday Party	11:00 to 13:30
	Birthday Party	14:30 to 17:00
Friday 17 <sup>th</sup>	Special Needs event	13:30 to 16:00
Tuesday 21 <sup>st</sup>	Children Centre visit	10:30 to 13:00
Friday 24 <sup>th</sup>	Young Engineers	18.00
Saturday 25 <sup>th</sup>	Young Engineers	11:00
	Club Running	13:00 onwards
Monday 27 <sup>th</sup>	Public Running	13:00 to 16:30
Friday 31 <sup>st</sup>	Special Needs event	13:30 to 16:00

Opinions expressed in PROSPECTUS are the personal views of the contributor and cannot be taken as reflecting the views of the club committee or editor.

**The deadline for the September PROSPECTUS is  
18 August. This is the final date.**

Contributions from all members are greatly welcomed

They may be submitted in hard or soft copy to the editor.

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