

# 'Signal' failures on Mostyn at the Palace

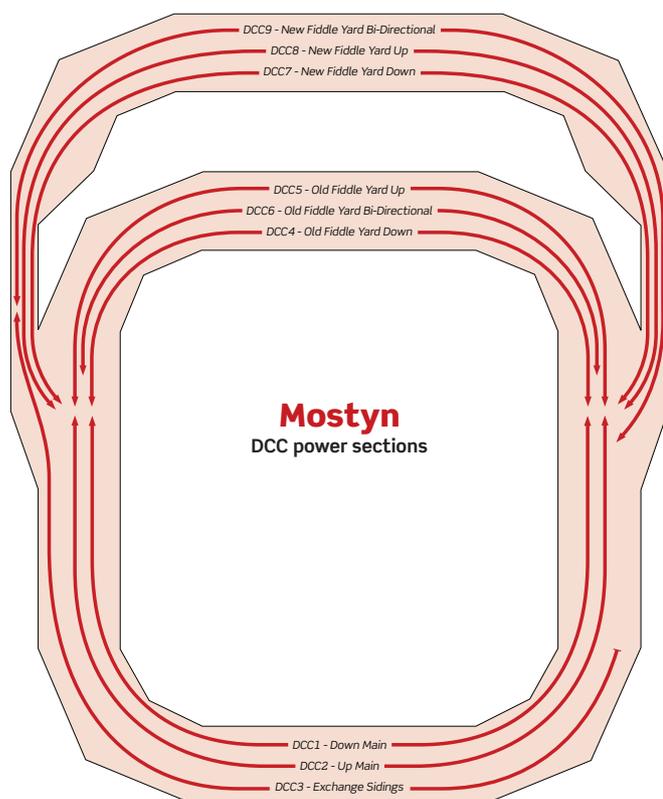
Welcome to the continuing story of Mostyn and how a group of friends have sought to re-create a slice of BR corporate blue heaven on the North Wales Coast main line in the Summer of 1977. You might think that, after eight years on the exhibition circuit and many hundreds of hours of test running, there were no more surprises but you would be wrong. Our recent appearance at Alexandra Palace exhibition opened our eyes to a whole new world of potential problems.

**LET'S SET THE SCENE.** We had arrived at the venue in good time on Friday afternoon having spent the previous weeks focussed on bringing the Chester end extension to a reasonable level of scenic completion. There were no great lists of new stock to absorb – just two refurbished locomotives to check – and the challenge, or so we thought, was to eliminate the operator errors from Wigan exhibition which had led to some stock and trackwork damage. Everything went very smoothly during Friday set-up and Nick Freezer, the Ally Pally exhibition manager, joined the ranks of Mostyn friends for his decision to locate us conveniently close to the loading bays for the West Hall. As we're getting older, the humping and carrying of the layout is becoming an ever more important consideration!

Saturday dawned, locomotive cleaning and formation testing routines were completed and, almost straight after opening the doors to the public, Mostyn was impressively surrounded by onlookers – four to five deep for long periods. For the team operating the Up Main and Exchange Sidings (Eddie Knorn, Dave Millward and myself) the session started really smoothly. Operating the extended layout requires a lot of concentration so we were only vaguely aware that all was not well on the Down Main. We focussed on keeping a high rhythm and variety of movements on the Up Main whilst the Down team resolved what we thought must have been a trivial issue.

## Locomotives not responding

The problem reared its ugly head when certain locomotives and DMUs using the Down Main failed to respond to the DCC handset commands whilst on the scenic section. Some stopped dead and others failed to respond to any command until they had reached the fiddle yard again. What might cause some locomotives to behave well in the fiddle yard and deserve ASBOs on the scenic section? Why was other motive power performing faultlessly on the Down Main and the Up Main seemed generally reliable? And, over-riding these questions, what on earth could we do about it whilst crowds of onlookers were present?



The 'great hand from the sky' was called into action to re-clean the Down Main and this had no effect. Still thinking that dirt was the cause, the offending locomotives were returned to the cleaning table where an increasingly exasperated Gavin Liddiard not only failed to remove any excess dirt but also remarked that the culprits were behaving reliably on the test track.

Suspicion was then directed towards the newly-installed Power Districts. In preparation for the introduction of the second fiddle yard and also to better reflect the areas used by individual operators, we have split the layout into nine Power Districts using DCC Specialties PSX-1 Power Shields. The big advantage of doing this is that a short-circuit only stops operations within the one affected Power District and the other eight remain operating normally. Location of the problem is made easier and, if all goes to plan, the complete layout is back to normal very quickly. The problems all seemed to be confined to the Down Main scenic power district so did we have a faulty PSX-1?

## Oscilloscope called into action

It was time to call in expert help and luckily The Model Electronic Railway Group (MERG, see [www.merg.org.uk](http://www.merg.org.uk) for details) had a stand at the exhibition and we were thankfully able to enlist the support of Peter Brownlow. Armed with his oscilloscope, the main lines were checked, with and without the problematic locos running, but there seemed to be no clues as to the cause of the problem. General head-scratching ensued. We could not shut the layout down to investigate our wiring further (as that would disappoint the public) so, for the rest of Saturday, the Down Main offered a reduced service consisting of those formations which did not have running problems.

On Saturday night, over a few beers, another tantalising clue emerged. Whilst the problem had been concentrated on the Down, a couple of locomotives on the Up had also proved less reliable than normal. Prior to Sunday show opening we had to balance track/locomotive cleaning and formation testing with periods of shut-down when the following checks were done:-

1. **Replace the Down Scenic Power Shield with a spare.**  
*Result = no change.*
2. **Down Scenic Power Shield bypassed completely.**  
*Result = no change.*
3. **Review inter-board connectors.** *Result = all pins and sockets were correctly seated and providing positive contact.*

These three checks eliminated the layout as a source of the problem so why would some locomotives work perfectly all the time and yet others would work reliably on parts of Mostyn but fail, principally, on the Down Main?

Having run out of avenues to explore, we decided to replace the decoder in one of the problem locomotives – out went an older Lenz 1025E decoder and in went a modern Lenz Silver chip. The problem was solved. Lo and behold, all the affected locos had the older 1025E decoders and all returned to flawless operation as soon as a Silver version was fitted. So now it's over to Mostyn electrical maestro David Faulkner for the probable explanation:

"I'd suggest that the various transmitters at Alexandra Palace (a combination of UHF Television and VHF Radio) along with the particular configuration/orientation of the wiring of the Down Main might have combined to interfere with the operation of the 1025E decoders. The cure was the enhanced ability of recent decoders to recover the DCC track signal in difficult conditions (usually caused by dirt) or better design in general. In the words of one of my fellow modellers. "So you are blaming the big metal spiky thing on the roof". There's something new to learn every day... ■



The famous 67-metre tall TV mast at Alexandra Palace. Built in 1936, it may or may not be compatible with early Lenz decoders! Panhard