


Schedule Risk Analysis – Thameslink

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26 July 2011*


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Schedule Risk Analysis –Thameslink

- Background
- Summary of R&V process
- Why a QSRA is required
- How it is developed
- What is done with the output
- Governance
- Lessons learnt

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Thameslink - Background

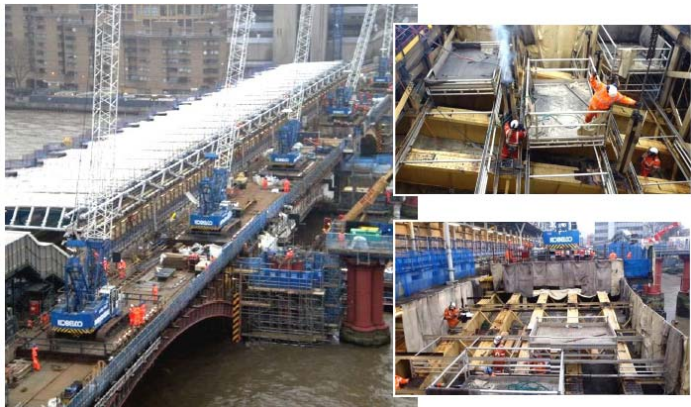


- Upgrade of the rail network between Brighton and Bedford
 - 12 car trains by 2012 (a 50% increase)
 - 24 trains per hour by 2018 (a 300% increase).
- Platform extensions to 50 stations
- New Stations interfacing with LUL at Blackfriars, Farringdon and London Bridge
- Signalling enhancements throughout the entire length.
- £5.5bn
- 10 years completing 2018

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Blackfriars



- New station on North bank – integrated concourse with LUL
- Platforms span river enabling a new station to be built on South Bank – first in London for many years
- Major track changes with through tracks switched from one side to the other

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Farringdon

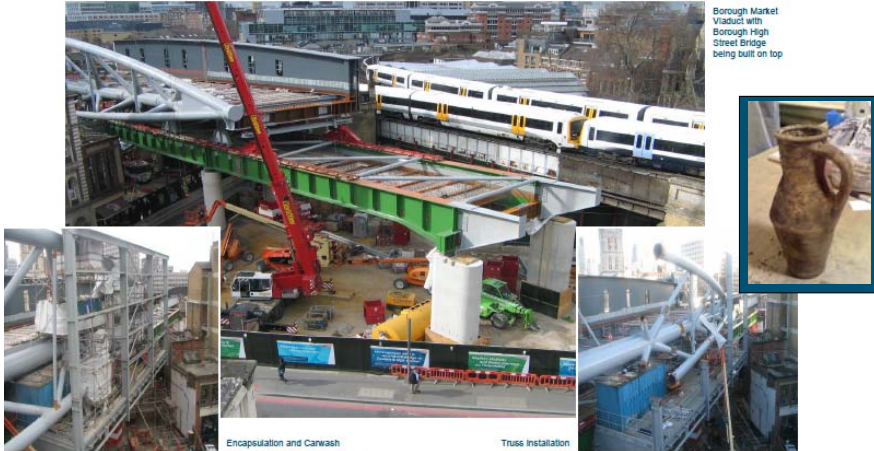


- New concourses on East and South side – integrated with LUL and safeguarding for Crossrail
- Station open throughout

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Borough Viaduct




- New viaduct through centre of historic Borough Market – advance works for Key Output 2
- Borough High St Bridge constructed on top of viaduct and slid into position
- Several interesting archaeological finds


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Railway Systems/ Outer Areas



ATF Cable Installation



OLE at
Fittwick




Borehamwood
ATF Neutral
Section




Transformer at
Southwark
Substation

- Multitude of smaller scale but pivotal pieces of work throughout Thameslink route
- Platform extensions, signalling, systems and power upgrades – in all weathers!

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London Bridge



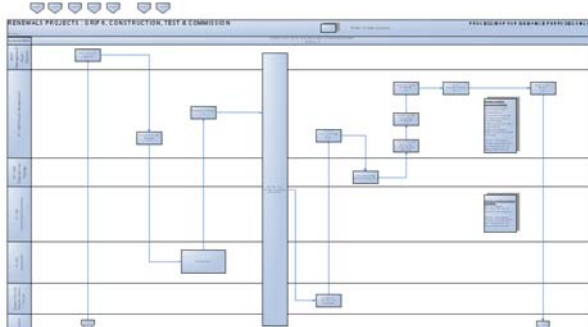
- Current works on concourse and bus station being undertaken by Shard of Glass
- Works just commencing to re-design station and enable increased throughput

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Summary of R&V Process

- Embedded within “GRIP”
 - Governance of Railway Investment Projects
- Value Management
- Risk Management



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Why a QSRA is required?

- In addition to “good practice” assurance of achieving key project milestones...
- Possession working:
 - On any weekend there will be multiple engineering works being undertaken in a possession
 - Every Bank Holiday between 30 and 60 major activities are undertaken
- **Network Rail is penalised for each overrun**
- **Our customers cannot afford our failure**

Regulator takes action against Network Rail following New Year overruns

20 February 2008
ORR/07/08

The Office of Rail Regulation (ORR) today ordered Network Rail to remedy systemic weaknesses in its planning and management of engineering projects and in its communication with train operators about progress with such projects.

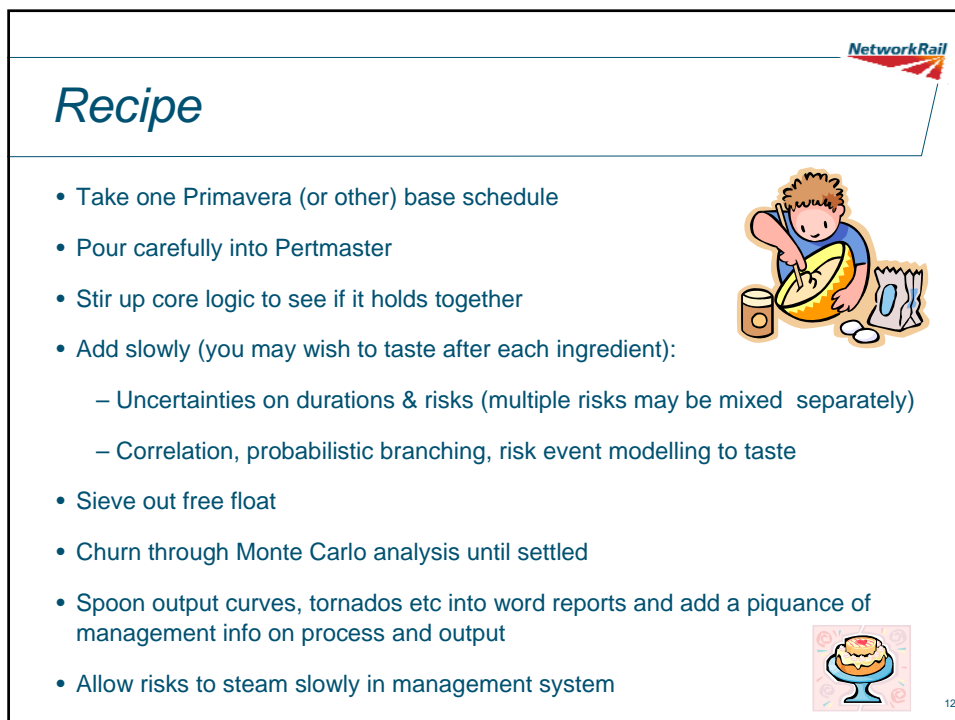
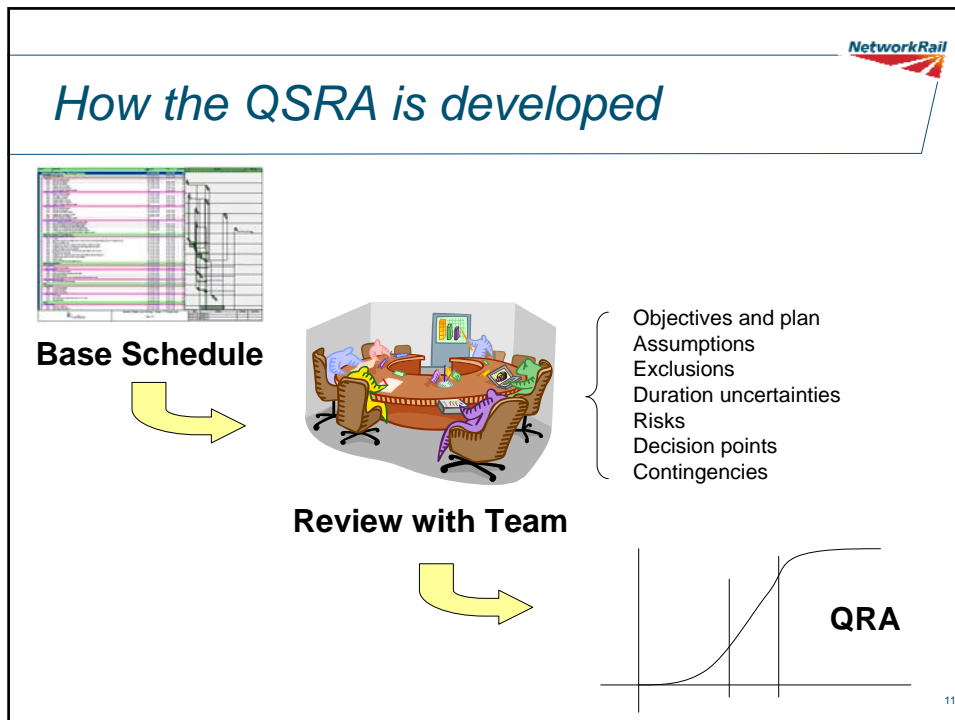
This follows ORR's conclusion that the problems experienced over the New Year were part of a continuing breach by the company of its licence.

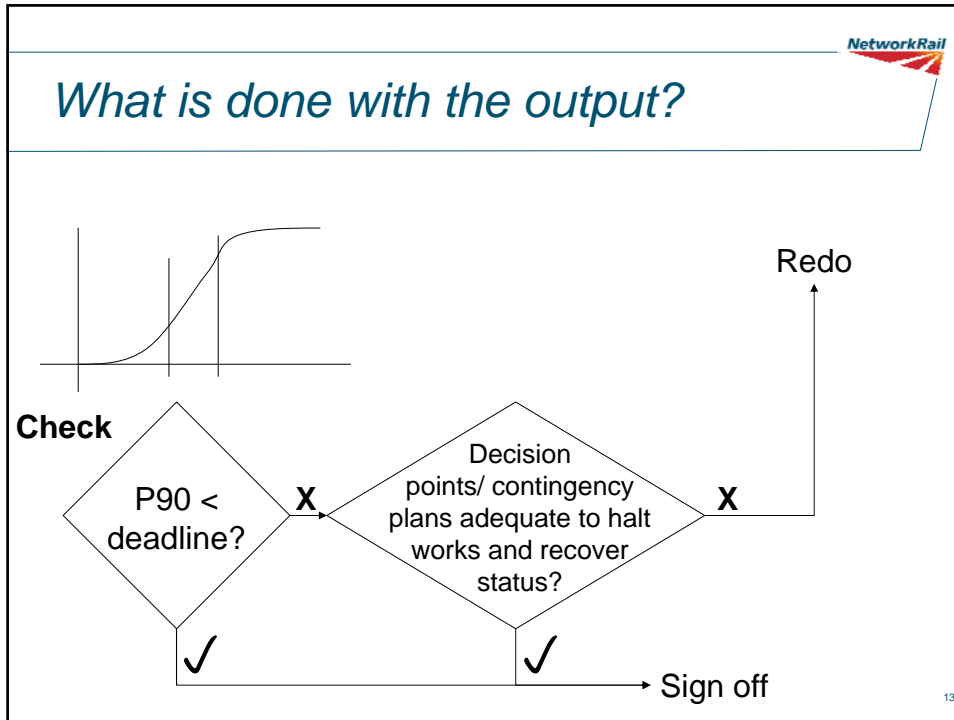
ORR also announced that it proposed to fine Network Rail £14 million to reflect the serious nature of this breach, the impact it had already had on passengers and rail freight users and the need for the company to take urgent action to improve its approach.

In addition, ORR also ordered Network Rail to provide a clear plan of how it intends to complete the upgrade of the West Coast Main Line, currently due to be completed by December 2008.

This action follows publication today of ORR's report on its investigation into Network Rail's management of engineering projects including the overruns at Rugby, Liverpool Street Station and Shields Junction.

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Governance

- Model and reports Quality Assured by a peer
- Sign off by author, project manager and Principal Risk and Value Manager
- More significant QRAs reviewed and signed off centrally
- Results for higher risk possessions (particularly longer Bank Holiday possessions) presented to NR Senior Management in Deliverability Reviews
- Acceptability of individual risks and cross-portfolio issues (e.g. common cause: plant availability and specialist labour) considered

Thameslink Programme
N280 Outer Areas
Bedford Station OHL works
Week 50
Schedule QRA Report

Date of Release: 17 February 2011
Production reference: P201027148 - 28 (Rev Saturday 12 March to 08 (Rev Sunday 13 March 2011)
Plan version analysed: Network 1.1 issued 18 February 2011

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Example: Borough Viaduct Bridge Slide May 11 – the Royal Wedding Weekend

NetworkRail

- Risk workshops commenced Jan 11
- Main contractor, sub-contractors, designers, Competent Independent Person, NR involved
- 2 schedules developed and QSRA's run: getting to start and successful completion
- Weekly risk updates
- Monthly QSRA reruns to final fortnight then more frequently



Video on
youtube

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Lessons learnt

NetworkRail

- Work up a solid baseline or.... apply the vortex principle...;
- Leave enough time for decision making;
- Hammock detailed plans with high level logic;
- Define accountability for preparing the integrated plan and risk analysis;
- Ensure team(s) understand the process and **own** the results;
- Analysis gives confidence to stakeholders;
- Attention to risk inspires confidence in team;
- Manage tactical risks 'offline';
- Be prepared for surprises – we're good but precogs only exist in movies!

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