Sustainable Railway Development and Safety in Hong Kong

20th International Railway Safety Conference
3 - 8 October 2010
The EMSD has a unique role to play in ensuring the safe operation of Hong Kong’s railways, and in shaping a sustainable future for our railway development.
A Century of Railway Development in Hong Kong

- The KCR came into service in October 1910
- Single track system
- British Section: Tsim Sha Tsui to Lo Wu
- Chinese Section further to the Guangzhou one year later
A Century of Railway Development in Hong Kong

• A 10-year investment programme commenced in 1974 to electrify the KCR with double track from Hung Hom to Lo Wu

• Anticipated future demands in trade with China

• Increased passenger traffic arising from the planned construction of large towns in the New Territories
A Century of Railway Development in Hong Kong

• The first stage of double-tracking and electrification was completed in 1982 between Kowloon and Sha Tin

• The use of diesel trains for domestic passenger services came to an end in July 1983
A Century of Railway Development in Hong Kong

- The Kowloon-Canton Railway was corporatised in December 1982
- The KCRC was wholly owned by the government with the mandate to operate the Kowloon-Canton Railway
A Century of Railway Development in Hong Kong

- Two decades of KCRC network expansion through five major projects:
  - Light Rail System
  - West Rail
  - Tsim Sha Tsui Extension
  - Ma On Shan Rail
  - Lok Ma Chau Spur Line
Mass Transit Railway

• Successive extensions over the next three decades
  • Tsuen Wan Line (1982)
  • Island Line (1986)
  • Airport Express Railway and Tung Chung Line (1998)
  • Tseung Kwan O Line (2002)
  • Disneyland Resort Line (2005)
Railway Development

- Population growth and dispersion
  - Demand for mass public transport

- Closer economic ties with the Mainland
  - Demand for inter-city links

- Technology advancements
  - Faster trains
Railway Development Strategy in the New Millennium


- Kowloon Southern Link (Commissioned in 2009)
- Shatin to Central Link
- West Island Line (Under construction)
- South Island Line
- Northern Link
- Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (Under construction)
- North Hong Kong Island Line
- Port Rail Line
Merger and a New Era
Merger and a New Era

• Idea of MTRCL-KCRC merger initiated by government in February 2004
• Approved by two corporations’ Managing Boards and shareholders in 2007
• MTRCL was granted a 50-year service concession for the operation of the KCR network
Now

Number of lines : 11
Total length : 218 km
Number of Stations: over 80
Daily patronage: 3.7 million
Regulating Railway Safety in Hong Kong

• Before 1990
  Railway Inspectorate duties performed by the UK government

• December 1990
  Hong Kong Railway Inspectorate (HKRI)
Establishment of Railways Branch in EMSD

- HKRI integrated into EMSD following a consultancy review study concluded in 2007

- The Railways Branch, EMSD established in February 2008

- Strengthened the technical and professional support
Establishment of Railways Branch in EMSD

• Regulatory control over all railway systems including tramway, peak tram, MTR and the Automatic People Movers of the Airport Authority

• A single jurisdiction monitoring the safe operation of railway systems in Hong Kong
Railways Branch Role and Functions

- Regulatory Framework:
  - Mass Transit Railway Ordinance (Cap. 556)
  - Mass Transit Railway Regulations (Cap. 556A)
  - Tramway Ordinance (Cap. 107)
  - Peak Tram Ordinance (Cap. 265)
  - Airport Authority (Automated People Mover) (Safety) Regulation (Cap. 483C)
Comparing with Overseas Railway Regulatory Bodies

• Railway regulatory framework developed in Europe is well established and serves as a good reference for Hong Kong

• Railways Branch being a railway safety regulator having a role similar to the ORR of the UK and the ITSRR of Australia
Comparing with Overseas Railway Regulatory Bodies

• Similar aspects of regulatory role
  – Manage the railways by ensuring that safety risks are duly controlled by railway project proponent and operator – MTRCL
  – A safety management system be established, implemented and subject to audit
  – Operation procedures to contain residual risks
Comparing with Overseas Railway Regulatory Bodies

• The Railways Branch by itself does not have the following regulatory role

  – Economics

  – Licensing or accreditation for commercial operations

  – Occupational safety and health of staff or contractor of railway operators
Railway Accident Investigation

- Both the Rail Accident Investigation Branch (RAIB) of the UK and the Office of Transport Safety Investigations (OTSI) of Australia are independent from their respective regulatory bodies.

- Railway Branch plays both the regulatory and accident investigation roles.
Railway Safety and Standard

• Good reference made from the Rail Safety and Standard Board (RSSB), UK and the European Railway Agency on the adoption of railway safety standard and indicators

• Undertaking safety performance, risk, data and trends analysis
Working towards a safe and sustainable future ....

- Fast growing rail networks
- Complex railway operating environment
- Large number of stakeholders
- A high level of railway safety very much hinges on the collaboration of designers, suppliers, operators and regulators and indeed every railway user
Working towards a safe and sustainable future....

- As Hong Kong’s railway regulator, we are keenly aware of our responsibility in shaping a safe and sustainable future for our city’s railway development
Thank you !