Closing remarks

Farewell

The First International Seminar on Road Tunnel Operation, Management and Safety

Chongqing, 18-19 October 2006

Closing remarks

On behalf of the PIARC Technical Committee 3.3 “Road Tunnels Operation”

Special thanks to:
- Chongqing Communication, Research and Design Institute (CCRD)
- Tunnelling Engineering Society of China (TESC)

19/10/2006

Manuel Romana-Ruiz
ENCOUNTER
In CHONGQING, a city of encounters

Chongqing People’s Square

Tunnels are very old

They have been always made by men...
They have been always made by men…

...for men to use 1/2

...for men to use 2/2

But tunnel technology can be very modern 1/2

- New High Speed Railway Tunnel at Guadarrama (Spain)
- 28 km long
- Two tubes
- Under construction
- In operation at 2008
But tunnel technology can be very modern 2/2

- Back view of Dulcinea EPBS (biggest in the world at this moment)
- M-30 road ring (Madrid)
- South bypass
- 2 tubes
- 3 lanes each
- ~ 2 km long
- Operation in 2007

The 1st International Seminar on Road Tunnel Operation, Management and Safety

- About 200 participants
- Proceedings (english version)
  - 278 pages
  - 29 papers
    - 23 chinese papers
    - 6 overseas papers
- Oral presentations at the Seminar
  - 17 presentations
    - 8 chinese presentations (5 from the proceedings)
    - 9 overseas presentations (4 from the proceedings)

The Seminar

- "A seminar is a place to learn and communicate"
  - Zhou Fengjun, at the beginning of his presentation at the Seminar on 18/10/2006
- What have I learned at the Seminar?
  - About tunnels in China?
  - About the questions treated by chinese colleagues?
  - About chinese roads tunnel technology?
  - About some issues actually in study/discussion?

Road Tunnels in China (according Duan Guoqing, page 112)

- At the end of 2004
  - 2,495 tunnels
  - with a total length of 1,246 km
- Actually (in operation and/or construction)
  - 60 tunnels with length > 3 km.
  - 14 tunnels with length > 5 km
  - 9 tunnels with length > 6 km
  - 7 long underwater tunnels
  - Qinling tunnel with a length of 18,4 km, the longest one in Asia
### Tunnels referred to by Chinese authors

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### Basic questions discussed by Chinese authors in the oral presentations

- **Natural risks**
  - (Zhou Fengjun)
- **Illumination**
  - (Han Shi)
- **Assessment of fire damage to structure**
  - (Zhou Rengqiang)
- **Ventilation**
  - (Qu Shihao)
- **Tunnel operation management**
  - (Liu Xianming)

### Chinese Standards mentioned in Proceedings

- Specifications for design of ventilation and lighting of highway tunnels (1999)

### Issues are the same all over the world 1/2

- **Use of spraying sprinklers against fire**
  - **Yes** Study on fire preventing technology for subsea tunnel of Xiamen east passage
    - Liu Wei, Zeng Chao, Tu yun, Huang Hongyuan (page 157)
  - **No** Research on new fire-fighting technology
    - Sun Yiyang, Yan Jingyi (page 190)
- **An assessment of fixed fire-fighting systems**
  - Report of Working Group 6 of PIARC Technical Committee C 3.3
    - Discussed in PIARC C 3.3 meeting at Chongqing (17 October 2006)
Issues are the same all over the world 2/2

- Passive fire protection for concrete
  - Study on fire preventing technology for subsea tunnel of Xiamen east passage
  - Liu Wei, Zeng Chao, Tu yun, Huang Hongyuan (page 157)
  - Assessment of fire damage in tunnel structure
  - Zhou Renqiang, Wang Mingnian, Guo Chun (page 183)
- Passive fire protection for concrete
  - Workshop co-organised by ITA and the British Tunnelling Society (BTS)
  - London 6th October 2006
  - Similar points of view

Workshops/Seminars of PIARC TC 3.3 in China

- 1st in Beijing, 2003
- 2nd in Chongqing, 2006
- 3rd in _____?, 200_?
- We are awaiting

Dear friends and colleagues:

On behalf of the PIARC Technical Committee C 3.3
Road Tunnels Operation

See you again
Thank you very much
Farewell