

Association mondiale de la Route

AIPCR / PIARC
Since 1909



World Road Association
-
Technical Committee on Road Tunnel Operation (C3.3)



First International Seminar
'Road Tunnel Operations Management and Safety'
Chongqing, 18-19 October 2006

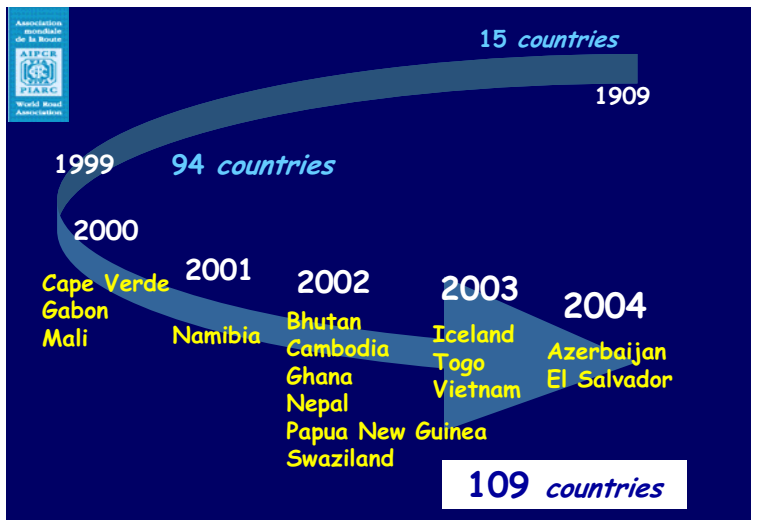
Association mondiale de la Route

AIPCR
PIARC
World Road Association

PIARC: A non-profit association to promote international cooperation in issues related to roads and road transport



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Association mondiale de la Route
AIPCR
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Members

National Governments
Regional Authorities
Collective Members
Individual Members

in about 130 Countries

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Vision

PIARC to be the World leading forum in exchange of knowledge on roads and road transport policy and practices within an integrated sustainable transport context

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Mission

To serve all members

- by being a leading international forum
- by disseminating best practice
- by promoting efficient tools for decision making

with special emphasis for developing countries and countries in transition

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Association mondiale de la Route



World Road Association

Structure


- COUNCIL**
representation of all member countries
- EXECUTIVE COMMITTEE**
elected by the Council every four years
- GENERAL SECRETARIAT**
- NATIONAL COMMITTEES**

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Association mondiale de la Route



World Road Association



PIARC General Secretariat

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World Road Association



A large range of publications

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World Road Association

On-going Projects

- World Interchange Network
- Seminars in Developing Countries and Countries in Transition
- Technology Transfer Centres in Developing Countries
- HDM-4 (software for the management of highways investments and projects)
- Terminology

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PIARC Winter Road Congresses

Tampere 1986
Tromsø 1990
Seefeld 1994
Luleå 1998
Sapporo 2002
Turin-Sestriere 28-30 March 2006

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PIARC World Road Congresses

Brussels 1987
Marrakech 1991
Montreal 1995
Kuala Lumpur 1999
Durban 19-25 October 2003
Paris 17-21 September 2007

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A Strategic Plan

For each 4 year-cycle,
in-between two World Road Congresses,
a Strategic Plan guides PIARC activities.

For the 2004-2007 period,
4 strategic themes
cover the work of
18 Technical Committees
+ Committee on Terminology.

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Strategic Themes 2004 - 2007

**ST1: Governance and Management of
the Road System** (K. Inoue – Japan)
ST2 : Sustainable Mobility (G. Clarke – UK)
ST3 : Safety and Road operations
(C. Nottingham – USA)
ST4 : Quality of road infrastructures
(A.-M. Leclerc – Canada-Québec)

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ST3: Safety and Road Operations

- 3.1 Road Safety
- 3.2 Risk Management for Roads
- 3.3 Road Tunnels Operation**
- 3.4 Winter Maintenance

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Birth of the committee ...

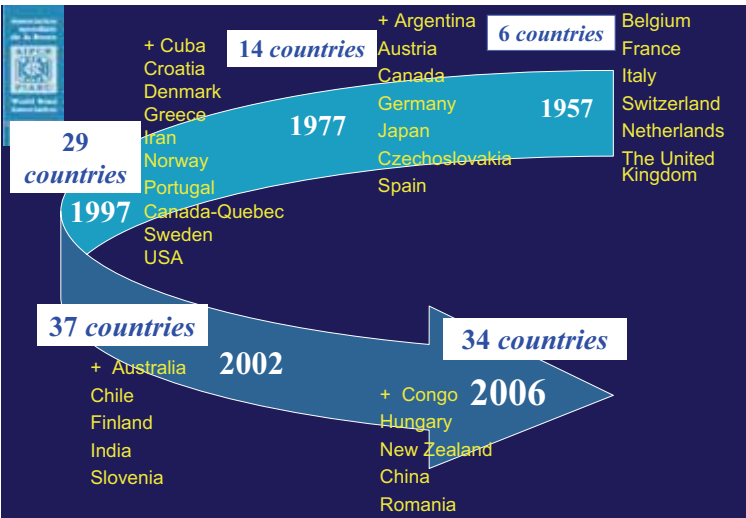
The PIARC technical committee in charge of road tunnels was created in

1957

under the name

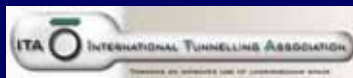
“Committee of Road Tunnels”

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The sphere of activity of the PIARC C3.3 committee

- PIARC C3.3 deals with:
 - ✓ Equipment
 - ✓ Geometry
 - ✓ Environment
 - ✓ Operation
 - ✓ Safety
- and not with:
 - ✓ Geology
 - ✓ Civil engineering



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Members of the committee

- 1 Chairman + 3 Secretaries
- Members :
38 members of 29 different countries
- Corresponding members :
15 members of 13 different countries
- Associate members :
8 members of 8 different countries

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Meetings of the committee

- 26-27 May 2004 : Paris
- 02-03 Dec 2004 : Rome
- 24-27 May 2005 : Sydney
- 06-07 Oct. 2005 : Dubrovnik
- **27-28 Mar. 2006 : San Juan**
- **16-17 Oct. 2006 : Chongqing**
- *4-5 June 2007 : Kyoto*
- *16-21 Sept 2007: Paris*

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2 seminars co-organized by the committee during 2004-2007 cycle

- 29-31 Mar 2006
San Juan
(Argentina)
- 18-19 Oct 2006
Chongqing
(China)



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Working groups of the committee

- 1 - Tunnel operation
25 members
- 2 - Management of tunnel safety
37 members
- 3 - Human factors for tunnel safety
16 members
- 4 - Detection, communication, safety equipment
18 members
- 6 - Ventilation and fire control
30 members

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Reports of the committee



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The most known report !



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Reports of the committee

- Road Tunnels: Systems and Equipment for Fire and Smoke Control
- Good Practice for the Operation and Maintenance of Road Tunnels
- Traffic Incident Management Systems used in Road Tunnels
- Road Tunnels: Vehicle Emissions and Air Demand for Ventilation
- Cross Section Design of Bidirectional Road Tunnels
- Cross Section Geometry in Uni-directional Tunnels
- Pollution by Nitrogen Dioxide in Road Tunnels
- Road Tunnels: reduction of Operating Costs
- Fire and Smoke Control in Road Tunnels
- Road Safety in Tunnels
- Road Tunnels: Emissions, Environment, Ventilation
- Classification of Tunnels, Existing Guidelines, Recommendations
- The First Road Tunnel - A Planner Guide for Countries Without Previous Experience of New Road Tunnels

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Reports of the committee

- Road Tunnels: Systems and Equipment for Fire and Smoke Control
- Good Practice for the Operation and Maintenance of Road Tunnels
- Traffic Incident Management Systems used in Road Tunnels
- Road Tunnels: Vehicle Emissions and Air Demand for Ventilation
- Cross Section Design of Road Tunnels
- Cross Section Design of Road Tunnels
- Pollution by Sulfur Dioxide in Road Tunnels
- Road Tunnels: reduction of fire risk
- Fire in Road Tunnels
- Road Tunnels: Emissions, Environment, Ventilation
- Classification of Tunnels, Existing Guidelines, Recommendations
- The First Road Tunnel - A Planner Guide for Countries Without Previous Experience of New Road Tunnels

+ 12 new reports under preparation

Cooperations



Joint OECD/PIARC project

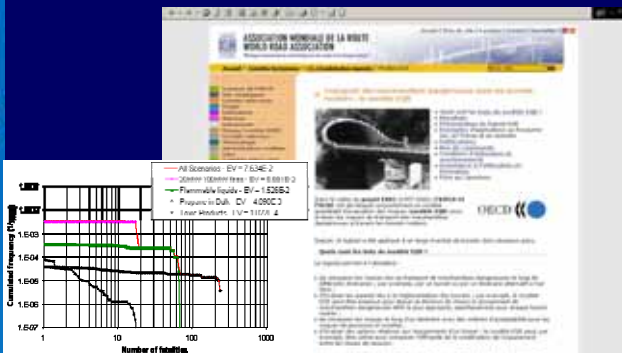
Transport of dangerous goods through road tunnels

From 1995 to 2001:

- ✓ Harmonisation of tunnel regulations
- ✓ Rational decision process including: Quantitative Risk Assessment model
- ✓ Assessment of risk reduction methods

Quantitative Risk Assessment model for dangerous goods (OECD/PIARC)

See PIARC site: www.piacr.org



Cooperations



Multidisciplinary Group of Experts on Safety in Road Tunnels



EU Regulatory Committee on Road Tunnels Safety

Cooperations

European research projects and thematic networks



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Cooperations

- ITA (International Tunnelling Association)
Complementary scopes of work
- New ITA Committee on Operational Safety of Underground Facilities (COSUF)
 - *Networking activities*
 - *Improve / foster tunnel safety worldwide*
 - *Jointly supported by ITA and PIARC*



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Articles in Routes/Roads



Routes/Roads

n° 324

October 2004

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C 3.3 committee is also...

... more than 130 experts
at your disposal
to share experience
in the field of road tunnels!

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Visit PIARC website <http://www.piarc.org>



The screenshot shows the PIARC website homepage. At the top, it features the PIARC logo and the text "WORLD ROAD ASSOCIATION" and "ASSOCIATION MONDIALE DE LA ROUTE". Below this is a navigation menu with links for Home, Site map, About, Contact, and Newsletter. A "Key words" search bar is also present. The main content area is divided into several sections: "RISK MANAGEMENT FOR ROADS" with a sub-section for "Seminars in Mexico (November, April 2006)", "PIARC PRIZE TO JOB/EMPLOYMENT", "PIARC PRIZE TO JOB/EMPLOYMENT" (repeated), "PIARC PRIZE TO JOB/EMPLOYMENT" (repeated), "Development of the private sector in the reconstruction, maintenance and operation of the road network", "International Seminars", "MDM-4", "NEWS AREA", "International Winter Road Congress", "PIARC PRESENTS CONCRETE", and "World Road Congress".

PIARC Technical Committee on Road Tunnel Operation (C3.3)



Thank you for your attention!