BULLETIN OF THE WORLD ROAD ASSOCIATION NATIONAL COMMITTEES

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15th Winter Road Congress 20th to 23rd February 2018, Gdánsk (Poland)



XVth International Winter Road Congress 20-23 February 2018

XXVIth World Road Congress 6th to 10th October 2019, Abu Dhabi (United Emirates)





EditorialSaverio Palchetti
Representative of World Road
Association National Committees

WORLD ROAD

MONDIALE

DE LA ROUTE

THE LYMPH OF THE NATIONAL COMMITTEES

Dear colleagues and friends,

as you know the National Committees constitute the propagation of the Association in each single Country. They carry out not only a role as representatives but also an operational role developing locally their activities within the Association. Recently, Poland has formed a Committee and in the next meeting of the Council in Bonn we will have 41 National Committees



Amerigo Vespucci, Mappa mundi, 1526

We are a community in the world

The National Committees, metaphorically speaking, constitute the lymph of our Association since they are a vital element which nourishes and gives strength internally to this organism. As declared in the Statute of PIARC, the organism is the whole Association that is made up of a community of persons that pursue a common interest. In brief, a National Committee is organized internally on one side, to transfer the results of the work of the international technical committees on a national

Opinions and comments to Saverio Palchetti at

s.palchetti@stradeanas.it

WORLD ROAD ASSOCIATION MODIFICATION INCOME.

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level. On the other side, to divert the information of the national activities to the vast international public. Some National Committees are created from technical road associations of engineers or from road operators. As a result there is a strong technical imprint, but not only this. The Committees ensure a strong relationship with the governments, in particular regarding national policies, identify and propose their experts for participation in events and international meetings which are initiatives of the Committee themselves. Furthermore, they organize seminars and workshops, also in a cooperative way. They develop internally the administrative activity and promote their own endorsement and of the Association. The international dimension, beside the national one, creates an additional substantial added value of know-how. Travelling, I have met representatives of various National Committees and all have recognized the value of the world community role of the Association. Each National Committee receives different types of benefits and each contributes in its own way. Roads are the connecting tissue of each country's territory and therefore reflect the individual context of its Nation. Roads and motorways, real or virtual, unwind throughout our Country but also cross the entire world, combining local and global elements (glocal).

My role as Representative of the National Committees

After my election in Cape Town in September 2016, last February in Abu Dhabi, I participated in the Executive Committee, in the Strategic Planning and Communication Commission. In my speeches I focused on my will to reinforce communication collaboration and between National Committees, with а cooperative approach toward the developing countries and which is one of the missions of the WRA. This means giving more attention to the needs and priorities of these Countries that see the advanced

world very far from themselves in know-how and technology. This of course does not mean that we should limit or not pursue new developments and technologies – that must move forward with the best international experts and with a production of top quality papers - but while reaching the objective of smart roads in the future, we should include in the progress we make, the solutions to the problems of rural roads and slums of those countries still evolving.

We not only should hope but also guarantee and increment the participation in the technical committees of the developing countries as well. It is not just an economical problem. These countries have a need for different and more adequate answers that can be applied, based on their internal contexts, since all technical and technological solutions are becoming always more sophisticated and complex. My first idea brought to the Executive Committee in Abu Dhabi received a first reply with the creation of a specific working group called "Africa" presided by M. Diallo from Mali upon proposal of President Van Rooten. The "inclusive" approach should become a fundamental element within the activities of the Executive Committee, the Strategic Planning Commission and the Communication Commission.





WORLD ROAD ASSOCIATION MORIALE DELAROUTE Project

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A new vision of the National Committees

It depends on us to support and believe in what we do in order to continue going forward together in an all-inclusive way, we must have high aims:

- the launching of extraordinary projects together:
 we are facing an epochal change regarding road
 technology and the use of systems for connected
 and automated driving for vehicles and trucks
 that will determine social and occupational
 changes. Another example is the setting up
 of the "Africa" working group, but also the
 extraordinary commitment of the Association of
 quality control within the Strategic Plan and the
 renewal of the communication methods;
- the redefining of equal opportunities in order to give everyone liberty to participate and pursue their objectives: increase the activity of the existing National Committees, spread the best practices experimented in other Countries and try to create new ones activating partnerships and twinning as foreseen by our Statute. The fact that the work of the Association is on a voluntary basis could be seen as a limit. But this also means that we work for ourselves, investing time and resources motivated by the fact that we believe it is useful and constructive to ourselves and others. Since technology undergoes a continuous change, this is an opportunity to continue our training and formation as well. This way progress is created for everyone.
- the creation of a community in the world: we are a global community that permits us to be part of something bigger and such a realization gives us strength in expanding our horizons. For important challenges far-reaching and global answers are needed. In a time of rapid and significant transformations, no single country is able to foresee the effects of the smart roads/smart cars or of environmental changes. The progress of our community of small and large countries, developed and developing countries, can be a treasure made up of experiences and changes which can be beneficial to all. This is a central theme for debate within the new Strategic Plan.

The next Executive Committee in Bonn

I believe that a task of the Representative of the National Committees is to keep a constant live dialogue between the Member countries bringing benefits to the Association. In the next annual reunion in Bonn, I am committed to giving more space to encounters with the National Committees. Unfortunately, some members may not be able to participate due to an overlap between the works of the Executive Committee and the meeting of the National Committees. With the Secretary General we are trying to find space in the agenda of the spring meeting in 2018, in Campeche-Mexico, dedicated only to the National Committees. I will keep you updated.

Conclusions

Roads are the neuralgic tissue of each territory and the key to development. They have a strong impact on mobility and urban planning, territory and landscape, economy, security, work and training. The Committees present worldwide have the opportunity with their "volunteer work" to enhance and organize their cultural strengths by "giving and receiving".

To increase participation and contribution to the general mission of the Association can only but enhance the experience and know-how for the common good of everyone. This is the sense of community which I have evidenced and its positive potential. No ideas are born already formed but they are created. Instant and fabulous ideas are "fiction".

Ideas take form only by working and developing them with determination and vision. We have reached a point that the National Committees need to reach goals as a community, not only for the acquisition of know-how in the road sector, but because we are the lymph that flows in the Association, in a time of immense transformations which include new projects, equal opportunities, continuous training and effective communication. Getting to know and understand each other better can certainly improve our National Committees and give a strong contribution to the Association.

WORLD ROAD ASSOCIATION MODIFICATION DE LA ROUTE BELA ROUTE RESTANCE

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We will begin to discuss this in Bonn where I will present an action plan to the Executive Committee which will continue next year in Campeche-Mexico.

I rely, as always, on your contributions with experiences, ideas and initiatives. Hope to see all of you in Bonn!

Saverio Palchetti

Représentant des Comités nationaux de l'Association mondiale de la Route



During the months of April-June 2017, the Argentine National Committee (AIPCR_ PIARC) devel-oped and will carry out the following public activities:

- On May 10th was held the Preparatory Day of the Pre Congress of Rural Roads, to be developed between July 19 and 20, in the Argentine Rural Society. Representatives of the National Committee, together with authorities of technical agencies and representatives of the National Agricultural and Livestock Organizations, analyzed the difficulties in these roads as a result of intense rains and floods that involved the declaration of emergency in eleven provinces of the country
- 2. On May 16th, the The Argentine Road Association held a workshop in conjunction with the International Road Federation (IRF) Webinar on « *Pavement Preservation*», in order to provide a clear and concise discussion of the Why, What, and How of Pavement Preservation for Asphalt Pavements. The event was attended by special guests from the public sector and experts from the private and academic sectors.
- 3. International Seminar on «Asset Management for Rural and Low Volume Roads» Santa Cruz de la Sierra (Bolivia), from 24 26 May 2017. As representatives of Argentine Roads Association were present: the Vice President of the World Road Association (PIARC), Miguel A. Salvia, and the Technical Secretariat of the World Road Association (PIARC- Argentina), Haydée A. Lordi, who presented her work on «Economic and social benefits on rural roads» and also participated in the meetings of the World Road Association (PIARC)'s Technical Committee D.4 «Rural Roads and Earthworks».

www.seminariobolivia2017.com/www.facebook.com/SeminarioPIARC/



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- 4. On May 24 organized by the Institute of Road Safety and Education and the support of the Argentine Roads Association, was held the Workshop on Transitory Road Signing Day.
- 5. On May 31, the Argentine Road Association was integrated, at the invitation of the Argentine Transportation Institute and the Sub- Secretariat of Transportation Cargo Planning and Logistics of the National Ministry of Transportation, to the Bureau of Logistics Coordination between public entities and private sectors to define the new profile of logistics activity in Argentina.
- 6. On June 2, was held the Day of Design and Construction of Concrete Urban Pavements, orga-nized by the Portland Cement Institute and the Argentine Roads Association.
- 7. On 13 June 2017, the Argentine Roads Association commemorated the Road Safety Day in Argentina, with the completion of a day to promote and raise awareness of this subject and its various aspects. The day was focused on the new management plans of the National Road Safety Agency, the Road Observatory and the National Highway Administration.

The event had the special participation of the General Manager of National Roads and First Delegate of PIARC Argentina, Ing. Javier Iguacel and several sector authorities, legislators, technicians and entrepreneurs related to the road work. The technical presentations included, among others, Dra. Verónica Raffo, specialist in Infrastructure of the World Bank, Lic. Verónica Héller, National Director of the Road Observatory of the National Road Safety Agency, and Lic. Paula Bisiau, Subsersecretary of the Sustainable and Safe Mobility of the City of Buenos Aires.



In addition, was introduced the second version of the Road Safety Manual - RSM, which is de-signed to assist countries at all stages of its infrastructures, to comply with the objectives of Road Safety. It is aligned with the fundamental pillars of the United Nations Decade of Action for Road Safety 2011-2020. www.aacarreteras.org.ar/actividades/dia_seguridad_vial

8. The Argentine National Roads Bureau and the Chilean National Roads Bureau in conjunction with the Argentine Roads Association, the Chilean Road and Transport Association and the World Road Association (AIPCR/PIARC) organize The «International Conference on Winter Service» to be held from June 27th to 30th in the city of Mendoza, Argentina.

The winter roads service has the objective of carrying out operations dedicated to maintaining the road in good traffic conditions when the weather conditions are adverse.

Taking this into account, international experts will deliver presentations that will cover issues related to anti-ice and snow removal strategies, information and early alert systems, service level, work in High-Mountain and International border areas, as well as solutions for winter roads service in urban areas.

During the three days of the International Conference on Winter Road will develop



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four thematic areas in which professionals and technicians of the different specialties will present their experiences and technical proposals.

Also, the Meeting of the Technical Committee PIARC TC B.2 Winter Road will be performed. Technical visit: On Friday, June 30th, will be made a technical visit to the "Intermational Tunnel Cristo Redentor" (lunch is included). It is the main linking corridor of Argentina and Chile, and includes a tunnel of 3080 meters of extension located at an altitude of 3.209 meters above sea level. This tunner is located at 200 km of the City of Mendoza and at 155 km from the city of Santiago de Chile.



www.vialidadinvernal.org.ar/ www.vialidadinvernal.org.ar/eng/ index.html

- Development of courses and seminars held in the Foundation for Professional Transport (FPT) organized by the Argentine Roads Association (AAC) in conjunction with the Argentine Federation of Business Entities Motor Carrier Freight (FADEEAC). April - June 2017.
- 10. Organization of Seminars on the National Technical Committees to be held during 2017 for the advancement and dissemination of the Strategic Plan for Technological Transfer (PIARC 2016-2019) of the National Committee, organized by the Argentine Roads Association (AAC). April -June 2017.
- 11. Technical meetings, organized by the Argentine Roads Association (AAC) for the presentation of the new Manual of Vertical Signaling for the National Road Administration (D.N.V.). These will be attended by special guests

- from the public sector and representatives of the technical area of the National Highway Administration (Chief Engineers, Directors, etc.) June July 2017
- 12. On July 11 and 12 will be held the Technical Update Days on Bridges, in order to analyze the new regulations on this subject being carried out by the public sector with the support of Universities and Organizations such as the Argentine National Committee
- 13. Elaboration of various programs for the delivery of Courses on the «Review of National and Mercosur Standards», organized by the Argentine Roads Association (AAC), together with the Argentine Institute for Standardization and Certification (IRAM), April-June 2017
- 14. Training seminars on Road Safety for cadets and agents of the Buenos Aires Police, in con-junction with the Superintendency of Police Training Institutes of the Province of Buenos Aires, organized by the Argentine Roads Association (AAC). April-June 2017 2017



Members of Belgian CN (ABR) visit the construction site of the Woluwe Boulevard

On the occasion of the meetings of the Board of Directors and the General Assembly, members of the Belgian Road Association (ABR) visited on April 26, 2017 the site of the redevelopment of the Woluwe Boulevard in Brussels. Some figures: area: 95.000 m² - length of the tram tracks

2 x 2 kms – Budget for mobility: 10.5 million €uros – Budget for tram routes: 11 million €uros.

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This boulevard is one of the main axes of penetration of the capital, in particular, from the international airport of Zaventem. Many companies have established their headquarters including the Road Research Center (CRR) as well as the University Clinic Saint Luc (UCL) and many schools and shopping centers.

The objective of the contracting authority (the Direction for road building and equipping projects of the Bruxelles Regional Public Service - SPRB Bruxelles) is to transform this expressway in a clear boulevard, accessible to all users whether they are pedestrians, cyclists, users of public transport or motorists. Multimodality is reinforced, connecting metro stations of different lines with tram and buses to the Flemish and Walloon region. Since the Boulevard is bordered on a large part by the Natura 2000 areas (Park of the Sources, Park of the Château Malou, ponds and streams of the Woluwe Valley), special attention is given to the landscape aspect of the project.



Eric Quinet, project manager, during the presentation

The tram 94, which is a circular line in the southeast of Brussels, is extended to the boulevard from Woluwe in order to connect the metro station Louise in the Center City at Roodebeek metro station located in the outskirts. This line is mainly laid out on the site (regardless of the traffic lanes to other users) and has a high commercial speed.

The tram tracks built along the Natura 2000 areas, will be grassed, reinforcing the landscape aspect of the boulevard. A mixed walk cyclo-pedestrian zone will be created, between the area of the

parks and the tram tracks, thus creating a «walk».



Tram tracks and walk next to the Park

On the other side, a two-way cycle track and a wider sidewalk for schools are planned.



Redevelopment on the side of buildings. From left to right: (future) Green band, with benches here and there; sidewalk (forthcoming); two-way cycle track (concrete); Strip of parking (cobblestone).

The two lanes will be maintained in both directions, but their width will be reduced. Motorists will thus more easily respect the maximum speed of 50 km/h. The row of parking will be maintained in length.

Service roads will join the main roadways to a greater distance from intersection. Junctions can therefore be planned ?? simply, with less traffic conflict. In addition, small crossings protected by signal lights, will be realized mainly at the level of schools and malls.

The boulevard regularly facing floods in case of heavy rains, surface water management was an important item to solve. On each side of the road, a Green Strip is scheduled to plant trees of



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alignment (ash trees and elm trees) and set up the «valleys» with a gravel floor. Thus, the water flowing from the floor can seep into the ground, while the excess water will be evacuated by the gullies. For this evacuation, two new secondary collectors will be posed (in addition to the existing main collector).



Excavation work for a valley. The slot under the border let water from the roadway, while the drain will overflow

Finally, the Roodebeek terminus will be reshaped as a full-fledged intermodal hub. In addition to the terminal of tram 94, the metro and the bus De Lijn (public transport company in the territory of the Flemish region) and TEC (public transport company in the territory of the Walloon region) also have a stop there.

With this set of interventions, the project has six objectives:

- 1. enhancement of public space for all users.
- 2. strengthening of intermodality;
- extension of the tram line 94 and sustainable mobility;
- improvement of road safety (specifically for vulnerable users);
- development of the banks of the watercourse of the Woluwe;
- management of runoff.

Info: http://www.tram94.brussels



Overview of a running phase, from the third floor of the building of the RRC in Woluwe





BURKINA FASO

Lunch-debate organized on may 27, 2017 at siao - ouagadougou on the theme:

ROLE OF THE ROAD INFRASTRUCTURE IN THE EMERGENCY OF THE AFRICAN COUNTRIES: CASE OF BURKINA FASO

Introduction

May 27, 2017, from 12:00 to 18:00 a lunch-debate was held at SIAO in Ouagadougou on the theme: «Role of road infrastructure in the emergency of African countries: case of Burkina Faso.

This activity was organized by the Committees of Burkina Faso of the African Road Managers and Partners Association (AGEPAR) and by the World Road Association (PIARC), as part of their program of joint activities of the year.

This lunch-debate was attended by one hundred and fifty road and transport professionals (engineers and technicians, environmentalists, responsible for public services or companies and offices for monitoring the private sector) and students. Experts from Benin, Mali and Niger also took part in this activity. However, a very low presence of women was registered.



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Conduct

After the opening remarks of the Chairman of PIARC Burkinabé Committee, Mr. TRAORE M, ALI, President of the ITL, this activity took place in four sequences, the first three being punctuated by three communications and exchanges, the last being devoted to recommendations.

Communications were the following:

- Presentation of the AGEPAR by Mr. BASSAN Basel Jacques, engineer of public works, Director of the technical studies to the General Directorate of Standardization and Technical Studies (DGNET), Secretary General of the CN-AGEPAR.
- PIARC presentation by Mr. IDOSSOU Tchona David, engineer of public works, Director General of the BICI, Treasurer General of the PIARC CB "Emergency" presented by Mr.SORGHUM Adama, engineer of public works, Technical Inspector of the Ministry of infrastructure Services.
- "The road infrastructure in the PNDES" (NATIONAL PLAN FOR ECONOMIC AND SOCIAL DEVELOPMENT) presented by Mr. YAMEOGO Pascal, engineer of public works, Technical advisor of the Minister of Infrastructure.
- "Governance and institutional issues" presented by Mr. BERE Stanislas, engineer of bridges and roadways, Consultant, President of the AGEPAR.

"Geometric design and structural works" presented by Mr. TOE Jean Marie, geotechnical engineer, CEO of TIAC, and Burkina AGEPAR NC General Treasurer

- "Development of road infrastructure" presented by Mr. COMBERE Marc, public works engineer, teacher, Manager of the International Manufacturing and Development company (EICD), and Secretary to the Organization of Burkina CN-AGEPAR.
- "Financing of road infrastructure" presented

by Mr. SOME N. Alexandre, engineer of public works, technical director of the Special Road Fund, and Secretary to the organization of the PIARC BC. "The road exploitation" presented by Mr. OUSSIMAN Souleman, engineer of the public works, General Manager of the Engineering Office GEFA.

Each sequence has been marked by exchanges that helped to deepen certain aspects raised by the communications, including:

- The worrying issue of integration of young people into professional life caught the attention of the participants. Experiences of recruitment of young people without experience have been mentioned, they should be analysed for their reproduction;
- The delay by Burkina Faso in the implementation of road maintenance contracts based on the performance of the GENIS AGEPAR type;
- The need for standards in the context of Burkina Faso for the design of road infrastructure;
- Current lack of knowledge of the characteristics of local materials used, or the effects of temperature;
- The fact that a lot of efforts are yet to be made in the fight against traffic overload, especially by a more rigorous application of Regulation No. 14/2005/CM/UEMOA UEMOA;
- The need for a law to allow the Special Road Fund to evolve into a third generation Fund and to fully play its role in the safeguarding of road infrastructure;
- The need for a legislative and regulatory instrument suitable for framing the PPP.

It became necessary to deepen some aspects such as the share of roads and road transport in the GNP of the country, the role of road infrastructure in the emergence of developed countries, the amounts invested in Burkina Faso in road infrastructure, the issue of funding for the development of the road network, etc.



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In the end, recommendations have been made among which we can cite:

Towards the professionals in the sector

- Greater rigour in design, production and maintenance to ensure quality of the infrastructure and their sustainability;
- Taking into greater account road safety in the design of infrastructure, and this through the assessment of road safety projects;
- Realization of safety audits of any road development before its opening to traffic.

Towards the Departments in charge of road infrastructure and road transport

- Strengthening the fight against corruption, particularly in the field of contracting and execution of contracts for road infrastructure
- Implementation of devices easing the insertion of young people in the professional life (adaptation of the criteria for the staff in the procurement, etc.);
- Definition, in the services of the road authority, of positions and profiles required to be occupied;
- Organization and development of road and road transport sector training schools;
- Formalization of the opening of the Geotechnical Services to the private sector;
- Implementation of the obligation markets of results of GENIS AGEPAR type.
- Better knowledge of local materials and their behaviour and the development of a catalogue of structures of roadways in Burkina Faso;
- Evolution of the Special Road Fund to a road fund of third generation through a law and its implementing provisions;
- Strengthening of the Public-Private Partnership in the field of landscaping and maintenance of road infrastructure in an appropriate legislative and regulatory framework;
- Full implementation of the texts of the UEMOA in the fight against traffic overload.

Towards the AGEPAR and PIARC Burkinabé Committees

- Development of a partnership between AGEPAR/PIARC national committees and schools or job training centers of the sector;
- Implementation of a device for monitoring the present recommendations.

Conclusion

Participation was quite satisfactory, not only from the point of view of the number of participants, but especially for the richness of discussions and the attention of participants despite the activity lasted longer than expected.

In particular, the participation of the students was appreciated and of some women hailed.

This success shows the interest of the joint program adopted by the two national committees (AGEPAR and PIARC) and the wish for continuation of this program.

* * *

CANADA-QUEBEC

52nd annual Convention and Transportation Trade Show of the Association québécoise des transports (AQTr)

Held from April 2 to 5, 2017, and focused on the theme Ville, Vision, Vitalité, the 52nd annual convention of the Association québécoise des transports (AQTr) was one of the year's great transport events, bringing together numerous experts from across Quebec and beyond. As an international expert committee—one of eleven such committees of the AQTr—the PIARC—Québec Committee took part in special activities aiming to encourage sharing of information, dialogue with the next generation and the development of business ties.

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On this occasion, an international delegation of experts in the field of tunnels gathered in Montreal for the meeting of the PIARC's D.5 Technical Committee on Road Tunnel Operation. Anne-Marie Leclerc, PIARC Honorary President and Assistant Deputy Minister at the ministère des Transports, de la Mobilité durable et de l'Électrification des transports du Québec, delivered the opening speech for the meeting of 25 committee members hailing from nearly 20 countries (including two from Quebec). A technical tour of the Ville-Marie/Viger Tunnel, one of Canada's two largest tunnels (the other being the Louis-Hippolyte-Lafontaine Tunnel), was also organized for the international guests.

Finally, in conjunction with the AQTr, the technical committee hosted a technical session on tunnel repair as part of the programming of the AQTr's 52nd annual convention—an important exercise to highlight the mission of the PIARC and an ideal opportunity to forge ties between experts from Quebec and around the world.

The convention was also an opportunity to recognize the winner of PIARC-Québec's 17th Dissertation Contest: Mr. Jean-Pascal Cloutier of Université Laval, for his piece on the mechanical behaviour of flexible pavement subject to the charging of load premiums in winter. This dissertation also offers insight into the decision-making process regarding the potential implementation of a load premium when roadways are subject to freezing. It also documents the behaviour of pavement in freezing conditions, the damage caused when loads are increased according to the depth of the freeze as well as the parameters of the materials and the ground in a frozen state. The aim of this piece is essentially to develop a rational standard for the charging of load premiums.

In partnership with the AQTr and with the financial support of Stantec, the PIARC-Québec Committee created a dissertation contest in 2001 to stimulate interest among young graduates and master's degree students in finding solutions to improve the efficiency and competitiveness of road transport networks, and to get them interested in the PIARC's work. The dissertations submitted must describe innovative solutions to issues included in the PIARC 2016-2019 Strategic Plan being studied by one or more technical committees.

The solution presented in this dissertation fits into the D - Infrastructure Strategic Theme of the PIARC 2016-2019 Strategic Plan. More specifically, the project addresses the issues under the remit of Technical Committee D.2 (Pavements), and Mr. Cloutier has joined the committee as a young professional.



Photo: Mr. Jean-Pascal Cloutier, recipient (fourth from left); Mr. Claude Carette, President PIARC-Québec (first on left)

* * *

WRA Korean National Committee KOREA

Korean NC Council Meeting

14th June 2017, Seoul, Korea

The first 2017 Korean NC Council Meeting was held to discuss last year's performance and future plans at upcoming events. In order to share technical committee members' achievements with others including both road experts and general public, the Technical Committee Performance Report Workshop will now be held twice a year. This workshop will be held in conjunction with Korean NC General Meeting 2017, in which the revised Korean NC constitution will be endorsed. Lastly, ideas were gathered to encourage participation of

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both public and private sector at 25th International Winter Road Congress. Korean NC will organize a Korea Pavilion to promote Korea's latest technology.



Korean NC Council Member Meeting

The 26th Road Day Celebration

7th July 2017, Seoul, Korea

The 26th Road Day Celebration will be held on July 7th. This annual event is organized by Korea Road Association and sponsored by Ministry of Land, Infrastructure and Transport and Korea Expressway Corporation. This celebration has commenced since 1992 and has brought road professionals together every year. During this event, road professionals who have dedicated themselves for the development of road industry and country's economic growth are publicly acknowledged. Korean NC technical committee members will also join this significant gathering of road experts.



The 25th Road Day Celebration



Workshop "Reinforcement of Concrete Bridges with Composite Materials"

Madrid, 6 April 2017

Last 6 April the workshop "Reinforcement of Concrete Bridges with Composite Materials" was held in Madrid. It was organized by the Spanish Technical Association (ATC) and our National Technical Committee "Bridges" in coordination with the PIARC Technical Committee D.3 "Bridges". This event was attended by over 150 national and international professionals on this subject.



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PIARC Technical Committee D.3 "Bridges" organized its first biannual meeting in Madrid in conjunction with this workshop. Therefore this event had a marked international character. Experiences in the use of this type of materials in countries such as Chile, USA, France, Japan, Romania and Switzerland were also presented by the international speakers.

Participants received a free copy of the book: "Reinforcement of Concrete Bridges Composite Materials", in Spanish. An English digital version of this book is scheduled for the near future.



From left to right: Alberto Bardesi, Director of ATC-PIARC; Imai Kiyohiro, President Technical Committee on Bridges of the PIARC; Jesús Santamaría, Technical Director of the General Directorate of Roads of the Spanish Government; and Álvaro Navareño, Coordinator of the ATC Technical Committee on Bridges.

On 23, 24 and 25 May 2017, a classroom Course for Control Center Operators of Road Tunnels took place in our own education facilities in Madrid.



The course has been organized by our National Technical Committee "Road Tunnels" and has been attended by 20 participants, with 20 hours of instructions.

A technical visit to the Operation and Control Center of Guadarrama Tunnel was included in the program.

In recent years, there has been an international interest in improving the safety and quality services in road tunnels. The Control Center Operators constitute a fundamental pillar for Road Tunnel Operations, as the role of these operators includes monitoring and acting on the tunnel control systems and they are often responsible for giving the first alarm in case of emergency. This course is aimed at staff working in the Control Room.

Technical Conference: 2+1 Roads "A debate in order to reach a solution for the future"

Barcelona, 6 June 2017



Historically the demand for traffic solutions in interurban roads has been solved in our country through two design solutions: the conventional road and the motorway (now with full highway characteristics).

However, today there are technical solutions that can constitute an adequate response to intermediate situations.



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Such is the case of what has been referred to as <2 + 1 Roads>, where, on the basis of a conventional road, additional fast lanes are incorporated and a spatial separation of the traffic directions can be established.

The aim of this conference was to analyze in detail this new solution and to advance in the design aspects that still require further development. Given the interest shown for this Conference (over 120 attendants), we are planning to organize the same Technical Conference in Madrid in a near future.

Complementary information available at: www.atc-piarc.com

General Assembly and Board of Directors Meeting

The General Assembly and the Board of Directors Meeting of the Technical Road Association (PIARC Spanish National Committee) has been held on 20 June 2017.

The appointment of the new "Members of Merit" of our Association has been included in the agenda. The two persons nominated for this award are:

Mr. Vicente Vilanova Martínez-Falero and Mr. Ángel García Garay. In both cases we talk about experts with long experience of participation in National and International Technical Committees.

These distinctions will be awarded after the next Board of Directors Meeting, to be held in November 2017.

Mr. Saverio Palchetti (Italy), the National Committees Representative, visited our PIARC Spanish National Committee last 5 June.



RUTAS Magazine

Number 170 (January – March 2017) of our quarterly RUTAS Magazine has been released.

We offer the possibility of downloading our RUTAS Magazine in digital format from our website: www.atc-piarc.com

If you wish to receive our digital RUTAS Magazine directly, please send an email to:

info@atc-piarc.com





The Ecuadorian National Committee has programmed the following activities:

- Technical conference on "The experience in construction of pre-fabricated bridges in Ecuador – June 7,2017 (see below)
- 2. In the end of July a technical day is being programmed on the "Evaluation of the actions taken on Road Safety in Ecuador with respect to the United Nations Global Plan of Action for the Decade for Road Safety and endorsed by PIARC



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Colegio de ingenieros civiles de pichincha asociacion mundial de carreteras comité nacional del ecuador. Invita a sus socios y tecnicos interesados a la conferencia tecnica sobre. Experiencia en la construccion de puentes prefabricados de hormigon en el ecuador



Auspicia: mavisa s.A Expositor: dr. Ing. Rafael pezo Fecha: miércoles 07 de junio del 2017 Hora: 18:00 - Local: auditorio del cicp (correa e-148 e iñaquito)







Sociedad ecuatoriana de Ingenieria de transporte Ecuadorian society of transportation engineering Acuerdo ministerial na 109 - Registro oficial na 316





FEBRUARY 16 - Rome

International Conference: Safety in Road Tunnels "Operational Measures in the European Directive" organized by Piarc Italy and Fastigi Foundation. The EC Directive 2004/54/CE provides for new safety standards to which tunnels must conform by means of structural and managing interventions. Given its morphology, Italy is the European country which has the largest number of tunnels in Europe, (44.4%) and is second in the world, after Japan. During the Conference, the effects of each individual measure were illustrated; many national and international experts took part in the Conference.

APRIL 5-8 - Marrakech:

TC C1 "NATIONAL ROAD SAFETY POLICIES AND PROGRAMS" meeting presided over by Mr. Arditi and workshop on "POLICIES AND PROGRAMS FOR MANAGING ROAD SAFETY": on this occasion, presentation by PIARC Italy's Secretary General Domenico Crocco on "Smart roads, smart cars, smart safety" which aroused great interest of all the participants.

APRIL 7 - Rome

Workshop on "SECURITY OF ROAD INFRASTRUCTURE" presided over by Mr. Palchetti, chairman of TF C1 "Infrastructure Security", who also participated in a similar event held in Mexico, on June 9th.

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Saverio Palchetti, Chairman of PIARC TF Infrastructure Security The logo and venue of the Workshop



Threats, vulnerability, risk mitigation strategies, design aspects both as permanent measures of prevention and emergency response measures were the main debated issues. Representatives of the Ministry of the Interior, ANAS, Italian motorway companies, a panel of experts in the field (a representative of the Austrian company ASFINAG), and members of the Piarc Italian Technical Committees gave their precious contributions.

Many important presentations were made, some of them dealing with the problems of cybersecurity and the importance of information technology in the security of road infrastructure and also the most advanced control systems were illustrated especially as for tunnels protections.

The road, already a potential site for various types of criminal acts and illegal trafficking, could be the site for atrocious actions and the privileged means to strike tunnels, bridges and viaducts. The aim of the workshop was to increase awareness on the

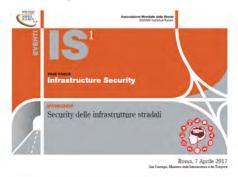
subject of security and to collect real life scenarios with the contribution of the participants.



The attack in Nice

It is therefore necessary that in the managing authorities, concessionaires and agencies a need for a preventive attitude of awareness and resilience to gain a new reaction capacity to face possible and unforeseeable critical events is strengthened. A "pre-announced situation" and not only a reactive one is essential with respect to potential threats towards things and persons.

An instant book "Workshop on Infrastructure Security" was produced in English and Italian. (See cover below).



May, Rome

second phase of the STUDY ON ROAD CABOTAGE – the first one ended in 2016 –commissioned by the Italian Ministry of Infrastructure and Transport and PIARC Italy to FIT Consulting, by means of an agreement.

The presence of a single European market with the consequent opening of border crossings controlled by customs has undoubtedly permitted



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greater and smoother mobility of goods and persons within the European Union at the cost of some loss of information related to transit of incoming and outgoing commercial vehicles from our country.

The Ministry's political bodies have advertised the outcome of this important study during various national events that involved freight transport.





REAM participates in 15th REAAA Conference in Bali, Indonesia

The Road Engineering Association of Malaysia (REAM) which doubles as the PIARC National Com-mittee organised a 53-strong delegation to the Road Engineering Association of Asia & Australasia (REAAA) Conference in Bali, Indonesia from 20 to 26 March 2017. The REAM delegation was the second biggest, next to the delegation from the Philippines, which has taken over the presidency of REAAA for the current term.

This conference saw the two senior members of REAM, Council Member Dato' Ir. Chew Swee Hock and former Council Member Dato' Ir. Han Joke Kwang being honoured with REAAA Honorary Membership for their exemplary and meritorious service to REAAA in particular and the country's road industry in general. The Public Works Department, Malaysia (PWD) was presented with Mino Award for its Central Spine Road project. Dr. Siti Zaharah Ishak's paper entitled An Evaluation on the Effectiveness of Motorcycle Lanes in Malaysia was awarded the third placing in the Katahira Awards.



Dato' Ir. Han Joke Kwang (second from right)



PWD Malaysia Director General Dato' Sri Ir. Dr. Roslan Md Taha (fifth from right) being congratulated by REAAA President Dr. Hermanto Dardak.



Zaharah Ishak receiving the Katahira Award..

REAM jointly organises an International Seminar on Natural Rubber in Roads

REAM and the newly established PWD Centre of Excellence for Engineering and Research (CREaTE) jointly organised the above two-day seminar commencing on 27 April 2017. Carrying the theme



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Towards Greener Pavements, the event drew more than 500 local and overseas participants. The 10 presenters included foreign luminaries from France, England, India and Thailand.

The objective of the seminar was to update the industry players on the latest development pertaining to the use of natural rubber in roads and also give awareness on the issues and challenges arising from the implementation of using natural rubber in roads.

This timely seminar was in response to the clarion call by the Prime Minister of Malaysia for the increased laying of rubberised roads to further increase the utilisation of the country's natural rubber.

REAM supports WTC with a delegation

As an official supporter of the inaugural World Transport Convention (WTC), REAM organised a delegation to this event held from 4 to 7 June in Beijing, China. REAM also organised a preconvention technical study tour to the Jiangsu Transport Institute (JSTI) in Nanjing on 2 June and a post-convention tour to the Research Institute of Highway (RIOH), Ministry of Transport in Beijing on 8 June.



The 12-member REAM delegation to the WTC.



MEXICO

On the road

The Mexican National Committee AMIVTAC continues working disseminating knowledge, procedures and best practices in the road sector.

Road conference program

March 16, 2017-

Polytechnic University of Francisco I. Madero, in Tepatepec, Hidalgo.

This event was attended by 425 people: students, university professors, engineers and experts. The following papers were presented:

- Geometric road project,
- Environmental impact and land use change for road projects,
- **3.** SCT regulations for earthworks, hydraulic and asphalt pavements,
- 4. Choice of type of bridges and
- **5.** Asphalts, mixtures of asphalts and laboratory tests in particular hydraulics.

INTERNATIONAL SEMINAR ON LOGISTICS AND ROADS

March 27 - 28 March 2017 - Mexico City, Mexico.

Both logistics and road operators met to exchange knowledge and experiences on the following topics:

- Public policies in logistics,
- 2. Transportation management, and
- 3. Energy efficiency, within the framework TC B.4 Freight Commission. Experts from Argentina, Austria, Arab Emirates, Belgium,

WORLD ROAD MONDIALE DELAROUTE JACONSON

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the United States, Finland, France, Japan, Mexico, Norway, Sweden, Switzerland and the Andean Community participated.

The public policies presented were oriented towards sustainability, competitiveness, safety/ security, risk management, accident prevention and efficiency.

In the management of lorry transport, subjects addressed were: the binational planning and execution of the US - Mexico border infrastructure, the use of tractors with larger weights and dimensions in Sweden and Finland; the case of platooning in Japan and France, consisting of driving two or three trucks one after another within an independent lane and the use of dynamic weighing to monitor weights and dimensions in the EU was also discussed. Finally the USA presented the National Coalition of Service areas for Truck Operators, the planning, the financing, and fiscal incentives for its implementation.

Regarding the efficient use of energy, Germany, France and Sweden presented the innovations of electric roads. A method capable of supplying electrical energy to vehicles through elevated or floor level systems. The Mexican Institute of Transportation presented the *«Technical Driving»* training to reduce the energy consumption in the operations of the heavy transport.



Speakers and assistants of the Interntional Seminar on Logistics and Roads

Security and protection of critical infrastructure

June 08, 2017 - Querétaro, Mexico

This event was held at the Mexican Transportation Institute (IMT). Sessions addressed were:

- 1. Threats,
- Identification of vulnerabilities and weaknesses,
- 3. Security by design, and
- Security costs and opportunities.



Saverio Palchetti and Members of the workshop Security and Protection of Critical Infrastructure

The event was attended by Roberto Aguerrebere, General Director of IMT; Héctor Ovalle, President of AMIVTAC; Saverio Palchetti, President of TF C.1, PIARC; Oscar Callejo, President of the Strategic Planning Commission, PIARC as well as experts in security issues in Mexico and Finland.

10Th road engineering seminar

July 26-29, 2017 - Villahermosa, Tabasco, Mexico.

Currently, the National Committee is organizing the 10th Road Engineering Seminar, to be held in Mexico, and its major transport infrastructure projects. In this event, the presentations will concern:

- a) Current situation and perspectives of Transport Infrastructure in Mexico,
- b) Ports, as a basis for a Logistics Platform,
- c) History and process of highway planning A19 Artenay Courtenay, France,
- **d)** Rail Infrastructure as an alternative for mass transportation of passengers in Mexico and
- e) Challenges and Solutions for the New Airport



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of Mexico City



AMIVTAC is pleased to invite you to this major event that will take place from July 26 to 29 in Villahermosa, Mexico. Detailed information and event registration are available on our website:

www.amivtac.org/xseminarioingenieriavial

PIARC INTERNATIONAL SEMINAR: GLOBAL APPROACHES FOR SUSTAINABLE PAVEMENTS

August 21 - 22, 2017 - Cancun, Mexico.



PIARC, the Mexican National Committee, and the Board of Directors of the Mexican Asphalt Association (AMAAC), have the privilege of inviting you to participate in the International PIARC Seminar: Global Approaches for Sustainable Pavements. Topics addressed will be:

- Pavement innovations
- Green solutions and materials for sustainable pavements,
- Low-cost pavement systems,
- Destructive techniques for testing and monitoring pavements and
- **5.** Use of monitoring data for design and management.

This event will be held on August 21 and 22 in Cancun, Mexico.

Registration to the event and additional information are available on the website:

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International bridges seminar

March 8 - 9 March 2018 - Cancun, Mexico.

The Mexican National Committee will host the International Bridges Seminar and the Technical Bridge Committee meeting of the World Road Association. This event will be held in Cancun, Mexico on March 8 - 9, 2018.



Bridge scouring manual

The Bridge Technical Committee of the AMIVTAC elaborated Booklet n. 2 of the Bridge Scouring Manual, so that engineers and technicians interested in the subject have updated information on the hydraulic and geotechnical design of bridges.

This booklet describes total and local scouring in pillars and abutments where methods for calculating these types of scouring and application examples are also presented



Cover page and back page of Booklet n.2 – Bridge Scouring Manual



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Road Magazine - Vias Terrestres

The 46th edition of the «Vias Terrestres» magazine, contains the "Studies and design of the new Barra Vieja-Las Lomas bridge", located on the Acapulco-Pinotepa Nacional motorway, which is part of the reconstruction works from damages caused to the road network by Hurricane Ingrid and Tropical Storm Manuel in September 2013.

The last editions of the magazine (may - june), "Transporte para una integración logística", include the articles: Transporte para una integración logística (Transport for integrated logistics), by Eng. Ángel Sergio Dévora Núñez and Eng. Agustín Melo Jiménez; Tramo subterráneo del tren interurbano México – Toluca Underground section of the interurban train Mexico-Toluca), written by Engg. Clemente Poon Hung and Leonardo Guzmán León; Diseño y construcción del nuevo puente de Coyuca de Benítez (Design and construction of the new Benitez bridge) by Eng. Osiris Aguilar González; among others regarding con airports, logistics, science and technology.

These editions of the magazine are available on the website:

www.amivtac.org/esp/1/vias-terrestres

World Road Association Congresses

15th Winter Road Congress

20th to 23rd February 2018!



More information:

http://aipcrgdansk2018.org

XXVIth World Road Congress 6th to 10th October 2019!



More information:

http://www.piarcabudhabi2019.org