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## ISCP NEWS

## Letter from the President



Mark B. Snyder, ISCP President

The end of one calendar year and the start of another (along with the associated holidays) usually allows us to take stock of where we have been - to consider what we have accomplished and to look (perhaps wistfully) at what we have not - and allows us to reassess and recalibrate our plans for the future. The following is my brief take on ISCP's accomplishments and progress over the past year and my thoughts about future directions for the Society.

The image in the rear-view mirror is generally pretty good. Much of 2012 was consumed by the planning and execution of the 10<sup>th</sup> International Conference and the associated 3<sup>rd</sup> Advanced Workshop. Both events were highly successful from a technical standpoint. The Workshop boasted (I believe) a greater attendance than either of the first two and a new format was implemented to limit presentation time and more strongly encouraged discussion and interaction. The format change was very well-received and should, with a few minor adjustments, become the template for future Workshops.

By almost all accounts, the 10<sup>th</sup> Conference was the best yet! It set a very high bar for future conferences (whether organized by ISCP or any other group). Held in a world-class facility in a beautiful city during its summer festival, the 10<sup>th</sup> ICCP featured more participation than any previous conference, with more than 50 podium presentations, more than 25 poster board presentations, more than 60 workshop presentations, nearly 20 student poster board competitors, and an excellent contingent of sponsors and exhibitors. Equally important is the fact that this Conference, which is ISCP's flagship event and original *raison d'être*, was held outside of the USA for the very first time, which helped to validate the "I" in ISCP!

On the downside, attendance at the 10<sup>th</sup> ICCP was lower than hoped for (due, no doubt, to worldwide economic difficulties that have led to agency travel restrictions, as well as to a reduction in US attendee participation that was only partially offset by increased Canadian participation). The lower attendance prevented the event from generating the revenue that the Society needs to operate effectively in the off-years. The replacement of this revenue will be a challenge for us that will be discussed at upcoming meetings.

Another downside is that organizing and co-hosting these two major events (along with a few regional conferences and workshops) required huge commitments of time by many ISCP members/volunteers, including many of our most active committee chairs and members. As a result, we did not make much progress on some of our other initiatives (including membership expansion/retention and several of our technology transfer database activities). We will be renewing our efforts in these areas and I expect significant progress in 2013.

As we move forward, I believe that ISCP needs to find ways to better step forward and fill the niche that it best fits - the one that facilitates international exchange of concrete pavement-related technology and information. No other organization in the world has the resources that ISCP has in its members to perform this function.

I also believe that ISCP needs to move quickly away from being solely dependent upon the efforts of a handful of member-volunteers and move deftly towards the hire of a part-time Executive Director or Society Administrator for whom the management and development of the Society is a primary (paid) focus, rather than a spare-time pro bono hobby of sorts. Having a permanent and paid staff - even a single part-time person to begin with - will help to assure that ISCP more quickly and effectively grows and develops the resources that are needed to fulfill its mission and serve the concrete pavement community.

I am hopeful that 2013 will be a very good year for ISCP. I hope to see all of you at our Annual Membership Meeting on January 12, 2013 in Washington, DC, USA, and would welcome any help (or suggestions) that you might be able to provide. Finally, I offer to all my best wishes for a happy holiday season and a healthy and prosperous new year!

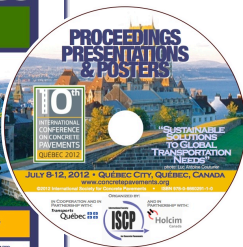
Sincerely,

Mark B. Snyder





## 10<sup>th</sup> ICCP Conference Proceedings Now Available



CDs containing the Proceeding of the 10<sup>th</sup> International Conference on Concrete Pavements are available and were mailed to all conference delegates December 5-7, 2012. These CDs also include PDF copies of the Conference and Workshop presentations as well as PDF copies of the Student Competition Posterboards. The CDs include a CD search engine to help users locate papers or presentations of interest.

Hard copy production has been delayed, but they are expected to be mailed in early January to those who special-ordered them.

Additional copies of the CDs and hard copy proceedings are available for \$75 plus shipping, and can be ordered online from the ISCP website at: [www.concretepavements.org](http://www.concretepavements.org), or by contacting the office of the secretary at: [secretary@concretepavements.org](mailto:secretary@concretepavements.org).

## ISCP Annual Membership Meeting & Dinner to be Held During TRB in January



ISCP members and guests are invited to attend the ISCP Annual Membership Business Meeting, which will be held on Saturday, January 12, 2012 at 17:30 Eastern Standard Time (EST) in the Thurgood Marshall Room North of the Marriott Wardman Park Hotel, 2660 Woodley Road NW, in Washington, District Of Columbia, USA.

Agenda items are expected to include:

- Presentation and discussion of the 2013 ISCP budget;
- Recap of the 10th International Conference on Concrete Pavements and the 3rd Workshop on "Advanced Characterization, Modeling and Design of Concrete Pavements";
- Reports on activities of each standing committee; and
- Presentation and discussion of a proposal to hold the 11<sup>th</sup> International Conference on Concrete Pavements in San Antonio, Texas, USA.

Members with additional agenda suggestions should submit them to: [president@concretepavements.org](mailto:president@concretepavements.org). A complete agenda will be posted on the ISCP website one week prior to the meeting. No arrangements have been made this year for a post-meeting dinner or other group event. However, refreshments will be available in the meeting room starting at 17:30.

For the Marriott Wardman Park Hotel, please go to: <http://www.marriott.com/hotels/travel/wasdt-washington-marriott-wardman-park/>.

## ISCP Members are Cordially Invited to the ACPA Willard Reception at TRB



The American Concrete Pavement Association (ACPA) invites all ISCP Members to attend the 17<sup>th</sup> Annual TRB Willard Reception on Monday, January 14, 2012 from 17:45 to 18:45 Eastern Standard Time (EST) at the Willard InterContinental Hotel, located at 1401 Pennsylvania Avenue, Washington, D.C., USA.

Transportation will be provided:

Buses (2 total) leave from the Marriott 24th Street Entrance at 17:00 and 17:15. Buses return from the Willard at 18:30 and 18:45.

Metro: Take the RED line south three stops to Metro Center

Exit 12th & F Street and walk 2 blocks west on F Street.

For more information, please contact Robert Rodden, ACPA by e-mail: [rrodde@pavement.com](mailto:rrodde@pavement.com).



## INDUSTRY NEWS & ANNOUNCEMENTS

### EUPAVE: Putting Construction at the Heart of the European Economy

EUPAVE held its traditional Christmas dinner debate at Hotel Le Plaza in Brussels on December 11, 2012. The event, which coincided with the celebration of EUPAVE's Fifth (5<sup>th</sup>) Anniversary, had a very high-level representative from the *European Union (EU)*. The EU was honored to have Mr. Daniel Calleja, *European Commission's Director-General for Enterprise & Industry*, attending the debate entitled "Sustainability in the EU Industrial Policy and in the European Construction Sector".

Welcoming the participants and opening the debate, Mr Aniceto Zaragoza, *President of EUPAVE*, congratulated the association for its Fifth Anniversary as well as for the important achievements and contributing to increase the sector's visibility and representation in the EU. But despite all this success, Mr. Zaragoza stated, "EUPAVE can still do more. As representatives of the industry of the most frequently used material in construction, we are big defenders of sustainability. Indeed, concrete is everywhere (roads, sidewalks, buildings, bridges...) and contributes to climate change, energy efficiency, economy and society."

Mr. Daniel Calleja stated that the European Commission considers construction as a crucial sector for the European economy and acknowledged that Europe needs policies which stimulate industry. "Europe cannot neglect manufacturers," said Mr. Calleja. "The European construction industry needs investments, standardization and better legislation; more support to the opening of markets in third countries; better use of the internal market; and sustainability."

He also explained that the European Commission is creating a high-level group around construction, with







representatives from the industry, public sector and other related stakeholders. Participants of that group would propose policy options for the European Commission. Inviting EUPAVE to be part of that group, Mr. Calleja declared, "We have to work together to make the construction industry one of the leading sectors of our economy. We need to go fast, far and together". Members of EUPAVE pointed out some of the main problems that companies face: financing, skills, excessive regulatory burden, enforcement, and unfair competition for the imports. The debate was closed with Christmas Greetings and wishes for a successful New Year.



**"December 4, 2012 marked EUPAVE'S 5-Year Anniversary! Thank you for all of your support over these last 5 years... We look forward to hitting the road with you in the future!"**



## ACPA Names Recipients of the 23<sup>rd</sup> Annual "Excellence in Concrete Pavements" Awards...



ACPA is very pleased to announce the recipients of the "Excellence in Concrete Pavements" Awards for 2012, presented at the American Concrete Pavement Association's (ACPA) 49<sup>th</sup> Annual Meeting. The meeting was held from November 26-30, 2012, at the Marco Island Marriott Beach Resort, Golf Club & Spa located in Marco Island, Florida, USA. Forty-four (44) judges representing various stakeholder groups throughout the transportation-construction community evaluated projects. The ACPA Annual Awards Program encourages high-quality workmanship in concrete pavement projects and serves as a way to share information about challenging and highly successful projects. The awards program recognized quality concrete pavements constructed in the United States and Canada, and recognized contractors, engineers and project owners who completed outstanding projects, providing them with a level of prestige that can assist them in the development of future projects.



Photos Above L to R:  
CPR  
**GOLD**-cowinner):  
**Denton** for Interstate 664,  
Virginia  
**SILVER**:  
**McCarthy Improvement**  
for Interstate 65  
Reconstruction, Hoover, Ala.  
**GOLD**-cowinner:  
**Dakota Underground** for  
ND200, Hillsboro, ND  
**GOLD**:  
**APAC-Tennessee, Inc.**  
- **Ballenger Paving**  
**Division**  
Runway 17-35  
Rehabilitation, Augusta  
Regional Airport, GA

For a complete list of the recipients of the **2012 ACPA Excellence Awards** please go to:  
[http://www.pavement.com/Events\\_and\\_Programs/Awards/Awards/Pavement%20Awards/NatAwd12/Summary%20of%20Paving%20Awards%202012.pdf](http://www.pavement.com/Events_and_Programs/Awards/Awards/Pavement%20Awards/NatAwd12/Summary%20of%20Paving%20Awards%202012.pdf).

## ACPA Names Recipients of the 44<sup>th</sup> Annual "Distinguished Service & Recognition Awards"

During its annual meeting, the ACPA also presented the **2012 Distinguished Service and Recognition Awards**. This awards program was established in 1968, when the first honoree was James W. Johnson, Iowa Highway Commission Testing Lab, for the invention of the slip form paver. The program has grown into a time-honored tradition, cherished by the honorees, the industry, and of course, ACPA!

The recipients of ACPA's **2012 Distinguished Service Awards**:

### ACPA Honorary Life Recognition Award:

**Peter Deem, Holcim, Inc., (USA), (ret.)**

Honorary Life Member (HLM) of the American Concrete Pavement Association.

Deem is one of only 13 current HLM's, and in recognition of his service to the industry, he will enjoy the full rights and privileges of ACPA membership for life. "I am honored to receive this very special award, and humbled to be among the small group of distinguished professionals who share in this special recognition," Deem said, adding, "This recognition is especially gratifying to me because it comes from the members, whom I hold in the highest regard." Peter Deem has been an advocate of transportation funding and concrete pavement research funding. He has served tirelessly as a past Chairman of the ACPA Board (2006), as well as in other leadership roles, including the Innovative Pavement Research Foundation (IPRF), the ACPA Strategic Board of Advisors, a leading member of ACPA's market development committee and Chairman of the ACPA Legislative Issues Task Force since its formation.

### Hartmann-Hirschman-Egan Award:

**Gordon Smith, President of the Iowa Concrete Paving Association, Ankeny, Iowa (USA).**

The award recognized Smith for more than 25 years of dedicated service and successful promotion of concrete pavement in Iowa and across the nation. Smith is also recognized for his vision and leadership in chartering the Iowa Center for Concrete Pavement Technology, which grew to be the National Concrete Pavement Technology Center (CP Tech Center) at Iowa State University, Ames, Iowa. The center has



Peter Deem, Holcim, Inc



Kevin McMullen,  
Gerry Voigt,  
Gordon Smith and  
Steve Jackson

grown to become an essential part of the industry, and vital to technology transfer and implementation. Smith is the 44<sup>th</sup> recipient of the Hartmann-Hirschman-Egan Award since the inception of the award in 1968. Kevin McMullen, P.E., *President of the Wisconsin Concrete Pavement Association*, a co-presenter who cited Smith's leadership at both the local level, as well as throughout the nation, referring to him as "a passionate, credible, and skillful leader, mentor, and expert in matters related to concrete pavements, ready mixed concrete, and cement." Co-presenter, Steve Jackson, *President of Cedar Valley Corp, LLC*, also cited Smith's many contributions, noting that "he has well represented contractors in his years of service to the state association, and the industry."

#### **Marlin J. Knutson Award for Technical Achievement:**

**Michael I. Darter**, Ph.D., P.E., *Professor Emeritus, Civil & Environmental Engineering at University of Illinois at Urbana-Champaign and Principal Engineer at Applied Research Associates, Inc.*

The award recognized Darter for his many contributions to concrete pavement science, research, and technology transfer and implementation. He served on the faculty of the Department of Civil and Environmental Engineering at the University of Illinois from 1973 until he retired in 2003. He is considered an international authority in design, rehabilitation, and management of highway and airport facilities, particularly concrete pavements. Through research, teaching, and consulting internationally, he has contributed significant new knowledge and many widely used engineering tools in pavement design/build; evaluation and forensic analyses; management; construction quality assurance; performance specifications; life-cycle costs analysis; expert witness; rehabilitation and maintenance procedures.

#### **Outstanding Pavement Promotion Award:**

**Ron Youngman**, P.E., *Executive Director, Colorado/Wyoming Chapter - ACPA*

This award recognized Youngman for his steadfast promotion of concrete pavements, applying innovation and sound engineering principles to address challenges and opportunities alike.

His efforts have included determining the need for tie bars in all the longitudinal joints; determining the bond between the concrete and the asphalt; and assisting CDOT with the development of a design procedure for 6-in. concrete overlays. The partnership between Youngman and the Colorado DOT (CDOT) is outstanding, and a testament can be seen in an example that dates to 1990. Youngman and a CDOT materials engineer had direct involvement and development of the Fort Collins, Colorado "6 x 6 x 6 design" concept. (The project developed from 5 in.-thick, 6 ft. x 6 ft. panel spacing, as well as some 3.5 in.-thick 6 ft. x 6 ft. panels). Since then, dozens of these projects have been built throughout the state.



Ron Youngman, Executive  
Director-ACPA Colorado/Wyoming

#### **Lifetime Pavement Recognition Award:**

**Forbes Field Runway 13-31** at the *Metropolitan Topeka Airport Authority*, Topeka, Kansas.

Constructed in 1942, the original runway pavement was an approximate 8-in. concrete pavement. A 10-in. bonded concrete overlay was placed subsequently as aircraft sizes and weights grew very quickly, as a function of aviation advances, since the original construction. By the 1990's, the runway was in very distressed condition as a result of D-cracking at the joints.

By 1995, an innovative, economical bonded concrete overlay design was used to rehabilitate the runway. After 17 years of services, it appears this very economical overlay is nearing its engineered design life. The Forbes Field airfield pavement has a more than 70-year legacy of service, due to the original 1.3 million SY of concrete pavement placed in the early months of World War II to the most recent overlay system placed in 1995. In addition to providing service to businesses, residents, and travelers to this important airport in the City of Topeka, the airport also has retained its military provenance with service to the Kansas Air National Guard, as well as the U.S. Army/Fort Riley.

#### **Sustainable Practices Recognition Award:**

**Frank Hayes**, *Senior Airport Specialist (ret.)* and **the Hartsfield-Jackson Atlanta International Airport (HJAIA) Team** for their vision, tenacity, and commitment to quality construction and sustainable construction practices with the implementation of Pavement Management System (PMS).

Hayes and HJAIA's implementation of its PMS is a hallmark of the owner's sustainable construction practices, which involve minimizing the amount of resources used in construction. The PMS has allowed the Department of Aviation to focus resources on the pavement areas that require maintenance, as well as to improve the design in the areas to increase the service life beyond what was expected. During his tenure, Hayes expected HJAIA's airfield concrete pavements to perform beyond the Federal Aviation Administration's standard 20-year design, and to that end, he was continually seeking ways to make pavements last up to 50 years.

The system developed at HJAIA, under Frank Hayes' leadership, has been the subject of Transportation Research Board publications, Innovative Pavement Research Foundation reports, and a paper presented at the International Society of Concrete Pavements' 10<sup>th</sup> International Conference in Québec City, Québec, Canada in July 2012. During his 35-year career at the airport, Hayes was involved with over 4.5 million SY of concrete pavements for runway, taxiway and apron applications.

For additional information, a press release of award recipients, and photos (please indicate the award(s), your preference for photos of the award recipients, the projects, or both), please contact:

Bill Davenport, Vice President – Communications, American Concrete Pavement Association  
Phone: 847.423.8703 | E-mail: [bdavenport@acpa.org](mailto:bdavenport@acpa.org).

For photos and additional information, please go to:

[http://www.pavement.com/News\\_and\\_Advocacy/News.asp](http://www.pavement.com/News_and_Advocacy/News.asp). Please visit ACPA's technical website at: [www.acpa.org](http://www.acpa.org) and ACPA's public website at: [www.pavements4life.com](http://www.pavements4life.com).

ACPA extends a gracious "thank you" to all those who participated in the association's Annual Meeting, making it such a great success! We look forward to the association's Mid-Summer Meetings from June 10-13, 2013 in Chicago, Illinois.

**The  
Forbes Field  
airfield  
pavement  
has a more  
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service ...**

The primary mission of the **ACPA** is to create and maintain a strong national presence through dynamic, strategic leadership; effective technical expertise and resources; and persuasive advocacy on behalf of the concrete pavement industry.

Founded in 1964, the American Concrete Pavement Association is headquartered in Chicago, Illinois as well as Washington, DC.





## Concrete Roads Acknowledged as a Solution for a Competitive & Affordable EU Transport System

On September 18, 2012 EUPAVE welcomed the adoption of the European Commission's communication "Research and innovation for Europe's future mobility - Developing a European transport-technology strategy". The communication's aim is to speed up the deployment of new transport means and solutions to achieve a competitive and affordable European transport system.

The 33-page communication lists ten (10) different fields of interest for which the Commission would like to focus transport research and innovation further. Smart, green, low-maintenance and climate-resilient infrastructure is one of those ten fields. The communication foresees that "new infrastructure (in the EU) will be characterized by climate-resilience, shorter downtime and low maintenance costs". For EUPAVE, it is clear that concrete roads can help the EU to achieve its sustainability goals and make benefits for the environment, economy and society through environmental, economic and social benefits.

For the Communication link, please go to:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0582:FIN:EN:PDF>

For more information, please visit <http://www.eupave.eu/documents/eu-affairs.xml?lan=en>.

## RECENT DISSERTATION ABSTRACT

### Effect of Fly Ash on the Optimum Sulfate of Portland Cement

Mark D. Niemuth, Ph.D., *Purdue University*, December 2012

*Major Professor:* Jason Weiss.

Calcium sulfate is typically added to ordinary portland cement (OPC) clinker during grinding to prevent flash set and to improve early-age strength development without causing volume instabilities. Recent changes to ASTM C150, Standard Specification for Portland Cement, have enabled greater flexibility in determining optimum sulfate levels in portland cement by not requiring ASTM C563, Approximation of Optimum  $\text{SO}_3$  in Hydraulic Cement Using Compressive Strength, to be used in setting sulfate target levels. ASTM C563 requires strength testing using only the hydraulic cement, which is not always indicative of the optimum sulfate for field use, since supplementary materials (e.g., fly ash) may be used by the concrete producer. Adding additional sulfate to account for the sulfate demand of fly ashes can enable an improvement in the early age strength for cement-fly ash systems and decrease in problems that may be attributed to OPC-admixture-fly ash incompatibility such as abnormal setting and slow strength gain.

This thesis provides experimental data on the strength development and heat release during early hydration for cement-fly ash systems with different sulfate levels. The thesis focused on high calcium fly ashes, but low calcium fly ash was also tested. It is demonstrated that some fly ashes have their own sulfate demand and when these ashes are used in cement-fly ash blends there is effectively an increase in the optimal sulfate level that could be used for the OPC. It is also shown that optimum sulfate determined by heat of hydration measured with isothermal calorimetry is similar to the optimum sulfate determined by compressive strength at 1 day. Using isothermal calorimetry can result in substantial time and cost savings at plants for determining the optimal sulfate content.

Theories for the mechanisms that drive the differences in sulfate demand in OPC are reviewed. These theories are adapted for OPC-fly ash blends and are outlined, tested and discussed. The testing of the theories is done by characterization through isothermal calorimetry, semi-quantitative x-ray diffraction (XRD), and pore solution ion concentration. This provides data that can be used to evaluate the explanations of why some fly ashes influence optimum sulfate.

The fly ash  $\text{C}_3\text{A}$  and  $\text{SO}_3$  have strong correlations to the increase in optimum sulfate along with frelime and soluble alkalis. The effect of the fly ash  $\text{C}_3\text{A}$  can be explained by the reactions that occur with sulfate to form ettringite or monosulfate, by the reaction with sulfate to form ettringite which contributes to strength at higher levels, or by retardation of the main alite hydration peak of the cement which requires additional sulfate to keep the sulfate depletion after the main alite hydration peak. The position of the sulfate depletion peak relative the main alite hydration peak has been correlated to optimum sulfate in the past and in this thesis.

## Call for Papers & Abstracts Digest

**December 31, 2012** Due date for abstracts for the 14<sup>th</sup> International Winter Road Congress to be held to be held February 4-7, 2014 in Andorra-la-Vella, Pyrenees. The theme is: "Reconciling road safety and sustainable development in a context of climate change and economic constraints". For information, please go to: <http://www.aipcrandorra2014.org/?lang=en>.

**December 31, 2012** Due date for abstracts for the International Conference on Creep, Shrinkage and Durability Mechanics of Concrete, Concrete Structures - Massachusetts Institute of Technology (CONCREEP-9@MIT), to be held September 22-25, 2013 in Cambridge Massachusetts, USA. Please send abstracts by email to: [2013concreep9@mit.edu](mailto:2013concreep9@mit.edu). For more information, please go to CONCREEP-9@MIT at the Concrete Sustainability Hub at MIT: <http://web.mit.edu/cshub/concreep/index.html>.

**May 15, 2013** Due date for papers for the 12<sup>th</sup> International Symposium on Concrete Roads - "Innovative Solutions - Benefitting Society" to be held in Prague, Czech Republic, September 24-26, 2014. For the Symposium website, please go to: [www.concreteroads2014.org](http://www.concreteroads2014.org).

# UPCOMING EVENTS

**JANUARY  
2013**



## **ISCP Annual Membership Board Meeting**

January 12, 2013, 5:30 - 8:00 pm,  
Thurgood Marshall Room North, Marriott Hotel in Washington, D.C., USA  
<http://www.concretepavements.org/calendar.htm>

**FEBRUARY  
2013**

## **92nd Annual Meeting of Transportation Research Board (TRB)**

January 13-17, 2013 in Washington, D.C., USA  
<http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>

## **World of Concrete 2013 (Use ACPA registration code A14)**

February 4-8, 2013 in Las Vegas, Nevada, USA  
<http://www.worldofconcrete.com/>

**MARCH  
2013**

## **9th Concrete Conference & Exhibition: Concrete for Sustainable Construction**

February 11-13, 2013 in Manama, Kingdom of Bahrain, <http://www.concrete9.org>

## **UKIERI Concrete Congress: Innovations in Concrete Construction**

March 5-8, 2013 in Jalandhar, Punjab, India, <http://www.ukiericoncretecongress.com>

## **8th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-8)**

March 24-28, 2013 in Ciudad Real, Spain <http://www.framcos8.org/>

**MAY  
2013**

## **Fifth North American Conference on the Design and Use of Self-Consolidating Concrete (SCC2013)**

May 12-15, 2013 in Chicago, Illinois, USA  
<http://www.intrans.iastate.edu/events/scc2013/>

## **International Conference on Concrete Sustainability (ICCS13)**

May 27-29, 2013 in Tokyo, Japan  
<http://www.jci-iccs13.jp/>

**JUNE  
2013**

## **International RILEM Conference on Multi-Scale Modeling and Characterization of Infrastructure Materials**

June 10-12, 2013 in Stockholm, Sweden  
<http://www.rilem2013.org>

## **Ninth International Conference on the Bearing Capacity of Roads, Railways and Airfields (BCRRA 2013)**

June 25-27, 2013 in Trondheim, Norway  
<http://www.bcrra.org>

For events taking place in July 2013 and beyond, please go to:  
<http://www.concretepavements.org/calendar.htm>.



ISCP e-NEWSLETTER  
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DECEMBER 2012

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Chief Correspondent: **Neeraj Buch, Ph.D.** [secretary@concretepavements.org](mailto:secretary@concretepavements.org)

ISCP would like to acknowledge **Bill Davenport**, *Vice-President of Communications, ACPA, EUPAVE* and **ACPA** for contributions to this issue.

ISCP invites ISCP members and friends to submit articles and calendar items to the Editor-in-Chief for future issues.

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Please visit the **ISCP Website** at [www.concretepavements.org](http://www.concretepavements.org) for more information about ISCP.

Maps, globes: National Geographic Family Reference Atlas of the World ©2002 National Geographic Society, Washington, D.C. & Concise Earth Book World Atlas ©1987 Graphic Learning International Publishing Corporation, Boulder, Colorado, Esselte Map Service AB Stockholm. All additional sources noted on perspective pages.