

# ICAR

CENTER FOR AGGREGATES RESEARCH

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SUMMER 2002



*l. to r.: Joe Allen, Stephen Forster, David Fowler, and Dallas Little.*

## ICAR celebrates its 10th successful symposium

### SPEAKERS AND TOPICS

The International Center for Aggregates Research hosted its Tenth Annual Symposium in Baltimore, Maryland, April 14-17, 2002. The annual meeting showcased technical issues and research, with attendees representing industry, academia, and government. The participants also helped to define future research areas for the Center.

Results from ICAR's recently completed and ongoing projects were presented for discussion. These studies, representing a broad range of aggregates issues, are described in detail, and reports may be printed from the ICAR website at: <http://www.utexas.edu/org/icar>.



*Researchers Eyad Masad, l., Washington State University, Texas A&M University; and Erol Tutumluer, r., University of Illinois at Urbana-Champaign, presented their findings in image analysis.*

In addition to presentations about ICAR research projects, experts from across the nation gave their perspectives on aggregates-related problems. Speakers from the departments of transportation of Utah, Maryland, Illinois, and Texas presented papers; eight panelists from departments of transportation and federal agencies briefed the attendees on their organizations and answered questions. International practices also came into view in reports from an international FHWA scanning tour and from the Ontario Ministry of Transportation.

The interactive technical sessions addressed Superpave issues, aggregates in both concrete and asphalt pavements, aggregates characterization, performance issues, and high-fines content concrete. Two sessions devoted to Superpave addressed broad overviews as well as evaluations of Superpave aggregates specifications. A session on aggregates in concrete pavements explored new options to predict alkali-silica reactivity, to maximize aggregates content, and to evaluate concrete workability. Concurrent sessions dealt with proportioning, characterization, and specification of hot-mix asphalt mixtures. Next, a session on performance, testing, and field evaluation related to aggregates characterization answered three questions: why? when? and how? Another session addressed the correlation between characterization data with actual

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## ICAR's Technical Advisory Committee (TAC) meets



*TAC Members formulate and rank problem statements to submit to the ICAR Advisory Board as recommended future research topics.*

The TAC, short for Technical Advisory Committee, is a group of experts from industry, government, and academia who evaluate proposed research topics, rank the competing ideas, and recommend program content to the ICAR Board. This body receives ideas from ICAR's task forces, DOTs, members of the industry, and researchers as they attempt to ensure that scarce funding addresses the most important research issues.

This year, the TAC met in Austin, Texas, August 14 and 15. In addition to input received from the task force meetings held during the recent symposium, we seek suggestions for research topics from industry.

Please contact ICAR's Managing Associate Director, Dr. Joe Allen, at 512-471-4498 or [icar@mail.ce.utexas.edu](mailto:icar@mail.ce.utexas.edu). ■

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## 10TH SYMPOSIUM WRAP-UP

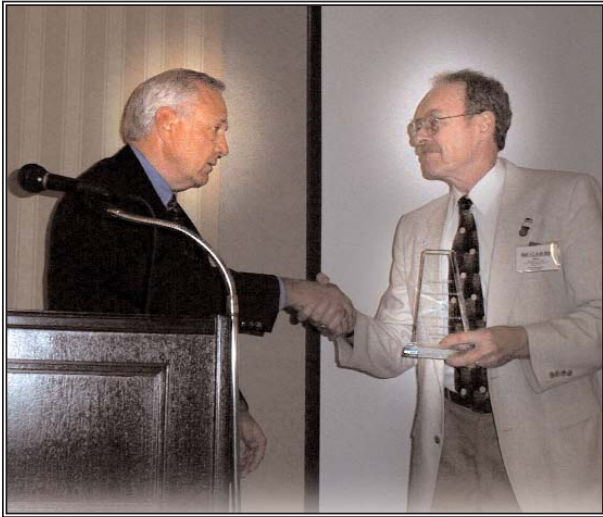
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performance. In the final category of presentations, attendees heard a well-rounded treatment of high-fines content manufactured fine aggregates in concrete pavement: from the lab, to the contractor's perspective, to the field experiences, and to the development of specifications. ■

### CO-SPONSORS FOR ICAR'S 10TH ANNUAL SYMPOSIUM:

National Stone, Sand, and Gravel  
Association Aggregates Foundation for  
Technology, Research, and Education  
The University of Texas at Austin  
The Texas A&M University System  
Vulcan Materials Company  
Florida Rock Industries, Inc.  
Maryland Aggregates Association

**DISTINGUISHED  
RESEARCHER  
AWARD**



*Tom Ransdell, I, Vulcan Materials Company, Southwest Division, congratulates*

*Dr. Stephen Forster, r., FHWA, on winning the Distinguished Researcher Award. Ransdell chairs ICAR's Advisory Board and Communications Task Force.*

Dr. Stephen W. Forster received the ICAR/AFTRE Distinguished Researcher Award for his significant contributions to the aggregates industry. Forster serves the FHWA as Technical Director for Pavements in the Office of Infrastructure RD&T. An expert in performance, distress, and durability of portland cement concrete and concrete pavements, Forster described his experiences as a geologist working with engineers in materials and pavement testing for both the US Army and the FHWA. Past holders of the distinction present to congratulate Forster included Charles Machemehl, Jr., Georgia Crushed Stone Association and Vulcan Materials Company; William Sheftick, Illinois Department of Transportation; and Richard Meininger, consultant, formerly of the National Aggregates Association. ■



*Donald Dunlap wore several hats at ICAR, serving as a TAC member, Advisory Board Co-Chair, and AFTRE Trustee.*

*Donald C. Dunlap, formerly of Basic Materials Corporation, played a tremendous role at ICAR for more than a decade. He dedicated invaluable time and expertise in the technical, organizational, and financial issues of the Center.*

**DONALD C.  
DUNLAP STEPS  
DOWN AS  
ICAR ADVISOR**

Dunlap's involvement with the Center began even before its establishment; he helped to raise the initial funds that made ICAR possible. He also attended its first symposium, and soon began serving on the Technical Advisory Committee at the request of Charles Machemehl, Jr. Later, Dunlap joined the ICAR Advisory Board, eventually replacing Bill Brown as Co-Chair with Tom Ransdell. Dunlap also served as an AFTRE Trustee, helping to ensure that scarce funds went to the most pressing aggregates problems.

Both the ICAR and AFTRE Boards benefited from Dunlap's experience as a civil engineer for industry who investigated aggregates characteristics in a broad variety of geological formations. His career highlights include positions with both small aggregates companies as well as Martin Marietta Materials. He retired as GM of Basic Materials in 1995 after 13 1/2 years.

The question, of course, on everyone's mind is: What does he do with all that free time? He enjoys spending his time with his wife of 53 years, Joan. He also keeps abreast of the cutting edge of aggregates research, and he shows obvious pride in ICAR's accomplishments. His message to ICAR: "Good show." ■

# ICAR'S 11TH ANNUAL SYMPOSIUM

## WHO SHOULD ATTEND?

Industry producers, researchers,  
sales personnel, & engineers

Construction contractors

DOT employees involved in  
research, design, & construction

University researchers &  
professors

## AGGREGATES: ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE, BASES & FINES

## HOSTED BY

International Center for  
Aggregates Research

The University of Texas/ Texas A& M

Aggregates Foundation for  
Technology, Research, & Education

National Stone, Sand, &  
Gravel Association

A P R I L 27 - 30 , 2003 • A U S T I N , T E X A S

## TENTATIVE PROGRAM

-Meetings of ICAR & AFTRE  
Boards

-Sessions with emerging topics  
such as performance-based  
specifications & warranties

-Special presentations concern-  
ing mechanistic design proce-  
dures for pavements

- icar model for  
unbound pavement
- field data comparison

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A separate seminar (separate registration) on  
**MECHANISTIC DESIGN FUNDAMENTALS**  
will be offered—software & user guides included

Check our website  
for information on the symposium:  
[www.ce.utexas.edu/org/icar](http://www.ce.utexas.edu/org/icar)

## ADDITIONAL PORTLAND CEMENT CONCRETE TOPICS

-Self-compacting concrete

-Pervious concrete

-Optimizing aggregate content  
for portland cement concrete

-Concrete aggregates gradation  
specifications

## ADDITIONAL ASPHALT CONCRETE TOPICS

-Surface energy predictions &  
performance

-Influence of aggregate particle  
shape & texture

- High-fines content HMA



l. to r.: Charles F. Potts, APAC, Inc., ICAR Board Member; Charles A. Machemehl, Jr., Georgia Crushed Stone Association, former ICAR Board Co-Chair and Distinguished Researcher; and his brother Randy B. Machemehl, Center for Transportation Research, ICAR Board Member, at ICAR's 10th Annual Symposium in Baltimore.

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