



Waterways

Coasts, Oceans, Ports, and Rivers Institute of the American Society of Civil Engineers

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Dr. Baum K. Lee Receives 2002 Hans Albert Einstein Award

The Hans Albert Einstein Award was established to honor Einstein for his outstanding contributions to the engineering profession and his advancements in the areas of erosion control, sedimentation, and alluvial waterways. The award criteria states that the award is to be made to a member of the Society who has made a significant contribution to the engineering profession in the areas of erosion control, sedimentation, and/or waterway development either in teaching, research, planning, design, or management. Contributions can be made either in the form of papers or through notable performances which have served to advance engineering in these areas.

The 2002 award was presented to Dr. Baum K. Lee at the Dredging '02 Conference in Orlando, FL, on May 7, 2002. As Charles Calhoun pointed out in his introduction of Dr. Lee, the words "or" and "either" can be removed from the award criteria in this case since Dr. Lee has documented "notable performance" in all of these areas over the past 33 years. As Chief Hydrologist on Senior Professional Staff, Dr. Lee reviews, supervises, directs, and performs a wide variety of hydrologic assignments and establishes guidelines and criteria for hydrologic studies. His expertise in the field of hydrology and hydraulics is vast, with typical subjects including water availability, flood hydrology, sedimentation and erosion engineering, and water quality. In each of these areas, he has performed numerous assignments in more than 30 countries.

As a sediment engineering specialist, he has served as expert court witness and as study manager/project manager for many projects where river-reservoir sedimentation and mathematical modeling were of primary concern. Since 1993, Dr. Lee has been appointed to the Panel of Experts for review of hydrologic, hydraulic and sediment engineering studies on Kapichira Hydroelectric Power Project for Electricity Supply Commission of Malawi, Africa.

Dr. Lee has also published numerous technical papers on hydraulics of sediment transport. His early work includes a

Doctoral Dissertation on "Stochastic Analysis of Particle Movement over a Dune Bed", and in his later contributions he established procedures for river-reservoir sediment investigation, which integrated field judgment, empirical approaches, and mathematical model applications for determining design criteria. Dr. Lee has also provided training in sedimentation engineering, reservoir sedimentation, and river mechanics to engineers in numerous



Dr. Baum K. Lee

developing countries as well as to graduate students in U.S. universities.

He has received commendation from many clients for his outstanding performance as a hydrologist, sediment expert, or

[see Hans Albert Einstein Award on page 6](#)

COPRI Governing Board

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briggsm@wes.army.mil

William M. Hall, Treasurer
bill.hall1@halliburton.com

Charles C. Calhoun, Jr.
ccalhoun@canufly.net

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dsethnes@ch2m.com

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lou@usna.edu

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rad@jhu.edu

Highlights

Note from the President	2
COPRI/PIANC Signing	3
Dredging Highlights	4
Committee Updates	6

Note from the President: INFRASTRUCTURE

J.E. Dailey, Summer, 2002



My COPRI commitment requires me to travel on occasion to ASCE Headquarters in Reston, Virginia. For me, the low-cost route is to fly into

Baltimore Washington International Airport and drive to Reston. If I have time on the return leg of the trip, I try to visit one of my favorite places in this world, the Patuxent National Wildlife Refuge, just off the Baltimore Washington Parkway. It's a chance to recharge my spiritual batteries and share a few precious moments with the plants and animals of my Maker's creation. In truth, the Refuge is not entirely His doing. The centerpiece of this wonderful ecosystem is a man-made lake, put there by leaders of our social institutions generations ago. The lake has been rebuilt now, hopefully to be preserved as suburban Washington closes around this oasis of peace and tranquility.

In my mind, the Patuxent National Wildlife Refuge captures in microcosm what COPRI is all about. The Refuge is one small place in the coastal regions of the world where, long ago, technical and related professionals came together in a socio-economic setting and got the infrastructure right. We thank our predecessors for that, and now it is our turn to press their vision forward.

Within COPRI, we are a diverse lot. We do Ocean and Coastal Engineering Practices, but we also do Coastal Zone Management. We do Ports and Harbors, Waterways and Dredging, but we also do Wetlands and River Restoration. This diversity, coupled with our independent and entrepreneurial spirit, is our strength - and is precisely what we had in mind when we formed COPRI. It enables us to bring a collective, holistic approach to the manifold infrastructure issues posed by growing human populations in the coastal regions of the world. We are much more than a guy on a bulldozer.

The collective, holistic approach ultimately becomes the sum of individual contributions, each of us in our everyday job wherever it may be.

COPRI member and leader Craig Fischenich, for example, travels around the world to cultivate and implement technologies that foster sustainable economic development without compromising the health of our rivers and wetlands. But real life is not always positive. COPRI Past President Doug Sethness was called to active military duty to deal with one of the most difficult social issues of our times. Our prayers and best wishes are with Doug and all others who go about healing a broken country half way around the world. Negatives can be turned to positives if we as professional societies contribute to the process of building infrastructure, be it man-made, environmental or social.

Our mission at COPRI is to support Craig, Doug and all our constituents with programs and products that help them do their jobs better to the benefit of all. As just one man writing a few column inches in one year, I can only cause you to think about what those programs and products might be. Bring your ideas forward, and we will work together to make them reality. ■

Deepwater Infrastructure Forum – Update

Following the successful inaugural meeting of the Houston Deepwater Infrastructure Forum (DIF) in September 2001, a small organizing team was formed with the aim of developing and executing a series of meetings and events during 2002. The DIF Steering Committee (as it is known) agreed that its mission would be to support growth and development of the worldwide deepwater offshore technical community. The DIF Steering Committee has divided itself into three groups with specific focus areas being:

- Define and develop the meetings and events
- Work with the technical community at large to present them
- Identify interested parties for targeted communications

Based on this foundation the second DIF Meeting was held in March with an excellent session on "Balancing Reservoir Uncertainty with Production Systems Design", led by Ken Arnold, CEO of Paragon Engineering Companies. The session focused on how detailed calculations and precise specifications are needed to build production systems, convey an impression of precision and accuracy about production capacity and capability that is often unwarranted. It included an assessment of production system strategy versus subsurface uncertainty and



COPRI Signs Partnering Agreement with PIANC



One of the goals of COPRI is to further its development as a multidisciplinary international focal point for engineers, scientists, managers and planners involved in sustainable development of coasts, oceans, ports, waterways, rivers, and wetlands through increased visibility and activity. A near-term objective is to establish partnering agreements with other professional associations who share COPRI's broad interests in the related fields of marine science, technology, engineering, operations, and public policy. An alliance with the International Navigation Association (PIANC) is one step toward COPRI achieving this goal.

PIANC is a worldwide organization composed of individuals, corporations, and national governments



Left to right: Jim Dailey, Brian Parsons, Thomas Ballentine, and Major General Robert Griffin at the signing ceremony in Vicksburg.

who are interested in maritime ports and inland waterways. The Association promotes contact, and advances and disseminates information of a technical, economic, and environmental nature between people worldwide in order to efficiently manage, develop, sustain, and enhance inland, coastal and ocean waterways, ports and harbors, and their infrastructure. The U.S. Section of PIANC celebrated its 100th Anniversary at their meeting in Vicksburg, MS, April 16-19, 2002. During the opening session, there was a short ceremony where COPRI and PIANC representatives signed a Partnering Agreement. COPRI Governing Board President, Jim Dailey, and COPRI Executive Director, Brian Parsons, represented COPRI, and PIANC President, Major General Robert Griffin, and PIANC Secretary, Thomas Ballentine, signed for PIANC.

The two societies have already cooperated on two specific recent activities, the COPRI Ports Conference held last year in Norfolk, VA, and participation on the PIANC Working Group 33 – Fenders. More historically, they also worked together on the Dredging Conference held in the early 1990s. With this Partnering Agreement now in place, COPRI looks forward to a more formalized ongoing mutual cooperation with PIANC. ■

the need for flexibility and upgrading capabilities. The meeting departed from the standard presentation and questions, by having a period in the program for discussions in small groups on a selection of topics, with feedback at the end. The discussion generated was interesting and diverse, and it helped support DIF's objectives which are to:

- * Transfer knowledge
- * Generate discussion
- * Create an environment for networking and relationship building

The next DIF event, June 19, is entitled "Whole Systems Solutions – Na Kika Case Study" led by Bill Luyties, Shell Na Kika Project Manager. This meeting should generate some interesting

discussion and debate, as the Na Kika project is establishing many industry firsts and will be the deepest production platform in the world when it starts up next year. Future DIF events include:

- Development Workshop "Engineering Your Career" – August 22, 2002 (Joint with SPE).
- Builders All Risk Insurance – Fall 2002.

If you are interested in learning more about DIF and attending the events, please contact Tom Wilne at Shell (twilne@shell.com) or Kelly Barnes at COPRI (kbarnes@asce.org). In particular DIF is looking for "gatekeepers" in companies and organizations through which meeting announcements can be made. ■ *Tom Wilne*

Highlights from the Dredging '02 Conference

Charles Calhoun welcomed attendees to Dredging '02 on Monday, May 5, on behalf of the Coasts, Oceans, Ports and Rivers Institute (COPRI). Held at the Rosen Plaza Hotel in Orlando, Florida, Dredging '02 was a three-day technical conference and exhibition that included more than 150 talks in four concurrent sessions, 25 exhibitors, and 380 attendees.

Dominic Izzo, P.E., the principal deputy assistant secretary of the Army for Civil Works, told the group in the plenary session that waterborne commerce is expected to double in the next 20 to 25 years, and that delays and increased costs make transportation of goods less safe. "When we push port improvement, people in the environmental community still don't understand (its importance)," he said. His talk revolved around the federal government's efforts to restore and create wetlands, to provide dredged material management plans on all federal projects, to save eroding estuaries around the nation, and to save the coast of Louisiana, where 25 to 35 square miles of land are lost every year.

The conference topic was "Key Technologies for Global Prosperity", and included sessions that focused on specific projects such as the Alcoa Aluminum PCB cleanup in the St. Lawrence River, cleanup efforts in Commencement Bay, Washington, management of

dredged material in Europe, and the Los Angeles Dredged Material Management Plan. Sessions with broader topics such as Dredged Material Management Plans, Beneficial Use Case Studies, Environmental Dredging Case Studies and Treatment of Dredged Material, among others, included research and test results, as well as descriptions of a broad range of applications.

On Tuesday, May 7, Dr. Baum K. ("B.K.") Lee received ASCE's 2002 Hans Albert Einstein Award. Hans Albert Einstein, an ASCE member, was also the son of famed physicist Albert Einstein. The award honored Dr. Lee for his accomplishments in the field of sedimentation engineering.

The focus of the conference was on environmental cleanup and remediation of contaminated dredged material, and attendees were given a first hand look at the tremendous cost of removing and treating this material. In many cases the level of treatment has been decided on as a result of public outcry rather than scientific necessity. This reached \$146 per cubic yard in the St. Lawrence Seaway project.

Proceedings of the conference are available on CD-ROM from ASCE for \$85. To order, please visit the ASCE website (www.pubs.asce.org) or call 800-548-2723. ■ *Judith Powers, Editor, International Dredging Review*



Mindy Weimer (left) and Karsten Millrath (not pictured) were the winners of the Dredging Conference Student Scholarship Competition sponsored by ARC Surveying and Mapping. Photo: Judith Powers



(left to right) Charles Calhoun (COPRI Board Member), Judith Powers (International Dredging Review), and Clark McNair (Conference Organizer) at the COPRI booth.



Joseph Germano of Germano & Associates, Inc. singing his famed "Dredging Song" at Tuesday's Luncheon.

First International Conference on Scour of Foundations

November 17-20, 2002

Texas A&M University College Station, TX

COPRI is pleased to sponsor the upcoming conference, Scour of Foundations. One of the goals of this conference is to promote the cooperation between all disciplines related to scour of

foundations. The latest information, research, and practice of scour of foundations will be presented. In addition, a prediction event to evaluate the precision of scour prediction methods will be organized at the conference. Requests for predictions were sent to the conference organizers last December, and tests will be performed during June, July, and August 2002. The comparison between the measurements and the predictions will be presented at the conference and collated in a separate volume

available at the conference. Other topics at the conference will include: scour at offshore platforms, underwater pipelines, bridges, and dams, as well as field studies, case histories, international guidelines and practices, and model tests.

To register for the conference, or for more information, please visit the website at <http://tti.tamu.edu/conferences/scour> or contact Professor Jean-Louis Briaud (Conference Chair) at briaud@tamu.edu. ■

COPRI Events at the ASCE 150th Anniversary Conference

November 3-7, 2002 • Washington, DC Convention Center

There are several events taking place at the ASCE 150th Anniversary Conference that will be of interest to COPRI members. Two of our most popular short courses will be offered, making this a great chance to earn Professional Development Hours. COPRI has also organized several field trips to the nearby Chesapeake Bay for members, their families, and students. The Chesapeake Bay is the largest of the 130 estuaries in the U.S.; 200 miles long with 11,600 miles of shoreline; the 64,000 square mile watershed has a population of 15 million. Even if you can't attend the entire conference, please try to join us for one of these COPRI events. For more information please contact Kelly Barnes at copri@asce.org or visit the conference website at www.asce.org.



Introduction to the FEMA Coastal Construction Manual

November 3, 2002, Half Day Course, 8:30am-12:30pm, 4 PDHs

Instructor: Christopher P. Jones, P.E.

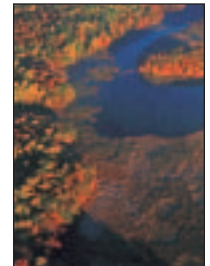
In June 2000, FEMA published an updated and expanded version of its 1986 CCM. The manual is intended for designers, but will also benefit building officials, floodplain managers, contractors, and others. The course will provide an introduction to the revised CCM, will demonstrate the use of the CD-ROM version, and is suitable for all audiences.

Coastal Engineering Manual: A Highlight of Changes from the Shore Protection Manual

November 3, 2002, Full Day Course, 8:30am-5:00pm, 8 PDHs

Instructors: Kevin Hall (Queens University), David L. Kriebel (US Naval Academy), Steve Hughes (Coastal & Hydraulics Laboratory)

The CEM is nearing completion and will be a "modern" technical document incorporating all the tools and procedures used to plan, design, construct, and maintain coastal projects. This course will introduce practicing engineers to some of the changes that are being incorporated, and will cover the design process and risk analysis – focusing on wave theory and forecasting, coastal structural design, sediment transport, beach response, and beach nourishment with some design examples.



Field Trip: Jug Bay Wetlands Sanctuary

November 2, 2002, 12:30-4:30pm, Ages: 7-Adult

The Jug Bay Wetlands Sanctuary consists of more than 1200 acres of tidal freshwater wetlands, forest, meadows and fields along the Patuxent River. We'll explore several types of wetlands, learn how they function, their importance to animals, and their value in maintaining environmental quality. (2 hours on site & 2 mile hike)



Canoe Trip: Smithsonian Environmental Research Center (SERC)

November 5, 2002, 1:00-5:00pm, Ages: 8-Adult

SERC comprises 2600 acres of land and 12 miles of undeveloped shoreline, and the trip will take participants on an ecological adventure through several ecosystems on a tidal creek. We will see wetlands, forested riverbanks and their inhabitants (birds, deer, muskrats, turtles, and other aquatic creatures) up close.

Field Trip: Horsehead Wetlands Center, Wildfowl Trust of North America

November 5, 2002, 1:00-6:00pm

This 500 acre preserve is comprised of several distinct habitats, located on the eastern shore of Chesapeake Bay. We will go on a one hour guided hike to identify birds, and will visit a beach restoration project which is involved in restoring a bulkhead eroding beach to a natural beach suitable as a nesting area for the diamondback terrapin.

Field Trip: Phillip Merrill Environmental Center, Chesapeake Bay Foundation

November 6, 2002, 2:30-6:00pm, Ages: 16-Adult

The Merrill Center is a 32,000 square foot office building which contains staff offices and an education and training center, and is sited on the shore of the Chesapeake Bay. Completed in November 2000, it was created to reflect the mission of the CBF and serve as a model for sustainable office building design and construction. We will observe key green design features as we tour the exterior and interior of the building.

Committee & Member Updates:

Oceans and Offshore Engineering Committee

The Ocean and Offshore Engineering Committee met on March 15, 2002, in Washington, DC, at the ASCE/COPRI headquarters. Discussions focused on current projects including a monograph on Spar Technology, a handbook on Advances in Coastal Structure Design, and the Deepwater Infrastructure Forum. New initiatives include the *Civil Engineering in the Oceans VI Conference*, *Long Wave Symposium* in conjunction with the XXX IAHR Congress, and *Deepwater*

Mooring and Risers Systems Workshop. Jun Zhang stepped down as Chair of the Committee, and he deserves a special thanks for his hard work and dedication to the committee. New officers include M.H. "Joseph" Kim as Chair, Jun Zhang as Past-Chair, Pat Hudson as Vice-Chair, and Don Ward as Secretary. The next meeting will be hosted by the U.S. Naval Academy in November 2002. If anyone is interested in participating in this committee, please contact Kelly Barnes at COPRI, kbarnes@asce.org. ■ *Michael J. Briggs*

COPRI Governing Board Met in Vicksburg, MS

The COPRI Governing Board met on April 15-16, 2002 at the Coastal and Hydraulics Laboratory of the U.S. Army Engineer Research and Development Center (ERDC), in Vicksburg, MS. Administrative and technical committee reports were presented for Awards, Coastal Engineering Research Council, Publications, Coastal Engineering Practice, Coastal Zone Management, Ocean and Offshore Engineering, Ports and Harbors, Rubble Mound Structures, and Waterways committees. Discussions featured upcoming conferences including the *Offshore Technology Conference* in Houston in May, *Dredging '02* in Orlando in May, the 28th *ICCE* in Wales in July, and the *ASCE 150th Annual Conference and TISP Congress on Infrastructure Security for the Built Environment* in November. New conferences include *Coastal Structures 2003*, *Ports 2004*, and *Civil Engineering in the Oceans VI*. COPRI Board members and staff also took a tour of the facilities of the Coastal and Hydraulics Lab at ERDC. In conjunction



Dr. Steven A. Hughes (right) explains one of his current projects to COPRI Board members Mike Briggs and Jim Dailey during the Board's tour of the Coastal and Hydraulics Lab at ERDC.

with the Board meeting, a new Memorandum of Understanding (MOU) was signed with the International Navigation Association (PIANC) during opening ceremonies at their 100th anniversary meeting in Vicksburg. An MOU is also planned with the International Association of Hydraulic Research and Engineering (IAHR) during the ICCE in July, and a joint *Long Waves Symposium* is scheduled in conjunction with the *IAHR XXX Congress* in Greece. Meeting minutes can be seen on the COPRI web site at <http://www.coprinstitute.org/>. ■ *Michael J. Briggs*

Hans Albert Einstein Award

from page 1

flood control engineer. This includes commendations from the Bangladesh government for outstanding performance technology transfer in the field of water resources planning and sedimentation engineering for the National Water Plan project (1983-1985), and from Honduran and Korean clients for outstanding technology transfer in the areas of field procedures and office analysis for river-reservoir sedimentation

investigations (1982).

Dr. Lee is also an active member of many professional societies. He has served (COPRI/ASCE) as Chair of the Waterways Committee, and has actively participated as a member of the Publications and Awards Committees. Thus, for his superb academic credentials and unsurpassed worldwide reputation as a practitioner of excellence, COPRI is proud to present him with this prestigious award. ■

Committee & Member Updates:

Coastal Zone Management Committee Meets at Solutions to Coastal Disasters 2002

It was a time to see old friends and new faces at the Coastal Zone Management (CZM) Committee Meeting held during the Solutions to Coastal Disasters 2002 Conference in San Diego. While many conference attendees were out enjoying the nightlife, the CZM Committee was holding a business meeting with a slate full of interesting opportunities, one of which was the selection of members to the Committee. Since the Solution to Coastal Disasters Conference was such a great success, it was apparent that very little needed to change with the leadership. John Fisher asked to be moved from Secretary to the Continuing Education Subcommittee, but otherwise, the leadership will stay intact. Don't despair though, we have a new Secretary, Mandy Loeffler, who is



Members of the Coastal Zone Management Committee and COPRI staff at their February CZM committee meeting in San Diego, CA.

excited to serve in her position along with the addition of Costas Synolakis on the Continuing Education Subcommittee, and Brad Pickel as Ambassador.

The Committee then got down to other business. They discussed their 5-year committee plan, voted unanimously to participate as a co-sponsor for the upcoming *California and the World Ocean 2002 Conference*, and agreed to begin working on a new venue for the second Solution to Coastal Disasters Conference. Also, the awards committee nominated Louise Wallendorf and Spencer Rodgers for the Service Award and the Professional Practice Award, respectively. If you could have seen the surprise on Louise's face! In closing, I would like to welcome all of my fellow COPRI members' participation in the CZM Committee and look forward to seeing some more new faces at the next meeting. ■ *Brad Pickel*

Cox Recognized

COPRI would like to give a special thanks to Daniel Cox (pictured on the left) for serving as the Institute Communications Correspondent, 2000-2002. Dan devoted a great deal of time and effort to spread the word about COPRI. He spent countless hours designing and maintaining the COPRI web-site, and he provided valuable guidance in getting the newsletter off the ground. On May 9th, COPRI President Jim Dailey presented a plaque to Dan at the Ocean Engineering Reunion at Texas A&M University where Dan is faculty in the Department of Civil Engineering, Coastal & Ocean Division. His dedication to COPRI is greatly appreciated and his presence at the Board of Governor meetings will be missed. ■



2002 & 2003 Conference Calendar

International Conference on Coastal Engineering 2002

July 7-12, Cardiff, Wales

ASCE Annual Conference & 150th Anniversary

November 3-6, Washington, DC

Scour of Foundations

November 17-20, College Station, TX

Coastal Structures 2003 Conference

August 24-28, Portland, OR

Long Waves Symposium, In parallel with the XXX IAHR Congress

August 25-27, Thessaloniki, Greece

Asian and Pacific Coasts (APAC) 2003

September 7-11, Chiba, Japan

We Need Newsletter Submissions!

COPRI is looking for volunteers to submit short articles that would be of interest to COPRI members. In upcoming newsletters, we would like to incorporate book reviews, meeting / workshop announcements, items of technical interest, industry-related articles, and more committee reports.

Please participate!

Contact Kelly Barnes at
copri@asce.org.



The Coasts, Oceans, Ports and Rivers Institute of the American Society of Civil Engineers

1015 15th Street NW, Suite 600
Washington, DC 20005-2605

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