



NEWSLETTER

PRESIDENT'S MEMO

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2004 BOARD OF DIRECTORS:

- President:
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- Vice President:
Jami Taylor, Lafarge, NA
- Secretary/Treasurer:
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- Directors:
- Jay Howard, Lehigh Cement Company
 - Gary Knight, Holcim (US) Inc.
 - Frank Lennox, Buzzi Unicem
 - Nick Maloof, Thomas Concrete Industries
 - Wayne Wilson, Holcim (US) Inc.
 - Joe Wolfe, W. R. Grace & Company

This year is half over by now! Y'all may recall I emphasized greater use of the Chapter Website for my term in Office. We were making progress until last May when several members that registered for the May meeting had difficulty with their reservations. I promised those in attendance that we would investigate the problem. Well, it was a simple one-time glitch that caused the problem. Our Website is programmed to forward reservations via email to the Chapter Office situated at the Georgia Concrete and Products Association. The Association changed their email address in May and the Website wasn't reprogrammed in time. This will not recur, so those that had difficulty should give it another try and those that haven't registered on line should try it for the September meeting.

We had fifty attending the joint ASCE/ACI meeting in May. This was poor turnout considering the quality of the Program. This can only be attributed to the fact that the meeting was held on Memorial Day weekend. We had avoided this conflict in past years and have this reminder why we should avoid it for the years to come.

Speaking of quality, the Skipper Seminar was highly rated although most Chapter members didn't attend. Our thanks to Past President Toby Branson for producing a technically relevant program. Almost ALL of our Skipper Seminars are worthy of recording on video for subsequent, broader dissemination. This is a project of Chapter activity that should be considered for future Seminars. Y'all can bet that when I Chair the Seminar in 2005 the topic will be fibrous concrete! Remember, "progress through knowledge".

Mel Galinat

NEW MEMBERS

Please help us welcome the following new chapter members:

Mr. Rodney B. Blount S&ME, Inc.	Mr. Samuel H. Linden, P.E. Linden Enterprises, Inc.	Ms. Ashely Pearhart Continental Concrete Structures
Mr. Millard M. Powladge MACTEC	Mr. Charles C. Pruitt Geo-Hydro Engineers, Inc.	Mr. Grant Specia Metromont Corporation
Mr. George Spence Metromont Corporation		

UPCOMING EVENTS

ACI Chapter Luncheon Meeting

September 24 , 2004
Sheraton Buckhead Hotel
Atlanta, Georgia

ACI Golf Tournament

Fall 2004
Location and Time to be
Announced

ACI Chapter Luncheon Meeting

October 22 , 2004
Sheraton Buckhead Hotel
Atlanta, Georgia

ACI Fall Convention

October 24- 28 , 2004
Hilton Hotel
San Francisco, CA

May Chapter Program

Long time Chapter member Mike Mahood invited Professor Anton Schindler of Auburn University Department of Civil Engineering to give us a program on his specialty entitled, "Early-Age Strength Assessment of Concrete Structures". The Professor established the benefits of early-age strength assessment [ESA] as primarily economical. He said ESA permits accelerated construction by early removal of forms and form rental expense reduction. There are two methods of ESA. The traditional "verification method" and the more recent "maturity method". He said the traditional use of quality control test cylinders left on site are NOT indicative of in-place concrete because of temperature, moisture and consolidation differences and differences in aggregate orientation. He pointed out that the nature of in-place testing is highly variable overall due to differences in batches and variations in test methods. He noted that the concrete in the top of a column is as much as 25% less than the bottom.

The maturity method offers the following improvements over traditional:

- It assesses in-place strength as a function of time and temperature history of a specific mix design.
- It provides predictions between actual data points.
- It is based on recorded temperatures in specimens as well as in-place concrete.
- It utilizes "maturity meters", devices that record temperature and project maturity from data stored in small, disposable "buttons" that connect to a palm pilot.
- The method converts temperature history to a "maturity index" that is applicable to one of two mathematical formulations. 1) The NURSE-SAUL formulation mostly used by DOT's. 2) The ARRHENIUS formulation which is more accurate than the former. Note, the "maturity index" is represented by the area under the time/temperature data curve.

The Professor defined the maturity concept as attaining strength determinations from given mixes at various ambient conditions. The concrete equivalent age concept relies on ASTM STP 169C (1994) which uses the ARRHENIUS formula and a base curing temperature of 20 degrees Celsius. This concept provides an equivalent age at the base curing temperature.

The implementation of the maturity method requires preliminary lab work to acquire the strength/maturity data, the estimating of in-place values and the subsequent verification of the predictions. Verification is from companion cylinders and pull-out specimens. Maturity is communicated in units of TTF which are degree Centigrade hours.

Professor Schindler acknowledged the limitations of the maturity method as follows:

- The predictions hold for short term strength but NOT long term as the behavior of supplemental binders is a significant variable.
- Any mix design changes during construction require retesting for base data.
- Good batch QC is required.
- Moisture must be available in the curing process.
- Air and dirt are process variables.
- Physical testing for confirmation is always required.

For additional information on this Subject, Prof. Schindler can be contacted at Auburn at 334-844-6263 and antons@eng.auburn.edu.

(From Right to Left:
Mike Mahood and Professor Schindler)



Skipper Seminar 2004

“Unique Applications in Post-Tensioned / Prestressed Concrete”

This years Skipper Seminar was conducted by a host of experts in the post tensioned, prestressed concrete field. Each of the four speakers presented a technical interesting aspect of design, construction staging, pt application and economics in prestressed concrete.

Corey Greika of Tindall Corporation pointed out with numerous examples that the prestressed double T’s and other concrete application are becoming now more economically feasible in light of high steel prices dictated by the demand from the Far East. This was especially pointed out in the retail and office market.

Dr. Hojat of Continental Concrete Structures illustrated how a challenging construction schedule at the Olympic Pool at Ga Tech was solved by elegantly staging the placing and stressing sequence of the post tensioning cables.

Gary Lineback of Heath & Lineback Engineers introduced the plenum to the Design Build Environment with illustrating the design and construction challenges of the massive 200,000 lbs Prestressed Girders at the 5th Runway for the Atlanta Airport. These special bulb tee beams will eventually withstand the loading of an Airbus Airplane carrying more than 700 passengers.

Bill Woolridge of Dywidag Systems International highlighted various opportunities where post-tensioning and prestressed systems are of benefit for a leaner and more economical design, presenting examples from parking decks, sports arenas and complex infrastructures.

Those who attended expressed their appreciation for the broad range of topics in one seminar and its technical substance.

The Georgia Chapter is thankful for the presenters to take the time and enthusiasm to share their expertise with the Membership, and we thank the Members for their support in participating.

2004 MEMBERSHIP APPLICATION

Name: _____

Company: _____

Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Office Phone: _____

Office Fax: _____

Home Phone: _____

E-mail address: _____

Professional Category: (Check one)

- Architect
- Contractor
- Engineer
- Student - Name of School _____
- Affiliate
- Other: _____

**Annual
Dues:
\$25.00**

*You may use this
form to sign up a
new member!*

Are you an ACI International Member: Yes No

If yes, date joined National: _____ If yes, Committee Membership: _____

Sponsored By: _____ Date Joined: _____

NEW MEMBER DUES RENEWAL

**Please complete
application and
mail with your
\$25 check to :**

Georgia Chapter, ACI
100 Crescent Centre
Parkway, Suite 110
Tucker, Georgia
30084
(770) 621-9324

MEMBERS WANTED...

Members! We need more members. One of the sections on the Annual Report covers points for membership. We did not lose any points for last year but we did not gain any. Ask your friends and fellow workers to join. We need to gain members this year.

Thank you.



**Georgia Chapter ACI
Newsletter**

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We're on the web!
www.georgiachapteraci.org

SEPTEMBER MEETING

- SPEAKERS:** **MR. NICK MALOOF, FACI**
GENERAL MANAGER OF TECHNICAL PROMOTIONS,
THOMAS CONCRETE INDUSTRIES
- PROGRAM:** **"ISO 9001 WHAT IT IS.....WHAT IT DOES"**
- DATE:** *September 24, 2004*
- TIME:** *11:45 a.m.—Registration*
12:15 p.m.—Luncheon
- LOCATION:** *Sheraton Buckhead Hotel, (See Reader Board)*
Atlanta, Georgia
- PRICE:** *\$25.00 - Pre-registered*
\$10.00 - Students
\$30.00 - Walk-ins and No-shows
- RSVP:** **To RSVP, please call "Sam" or Bebe at**
(770) 621-9324 BEFORE 4:30 pm on
WEDNESDAY, September 22, 2004.
- PLEASE NOTE:** *If you fail to call in prior to the deadline, or do not*
show for the luncheon, you will be charged \$30.00.