

# SOCIETY FOR THE ADVANCEMENT OF MATERIAL AND PROCESS ENGINEERING NEW JERSEY CHAPTER

# **OCTOBER NEWSLETTER & MONTHLY NOTICE**

# **OCTOBER 2, 2008 (1<sup>ST</sup> THURSDAY)**

# **FRP STRENGHTENING OF THE CONCRETE PIER AT THE US NAVAL STATION EARLE AT SANDY HOOK NJ**

DR. HOWARD S. KLIGER H. S. KLIGER & ASSOCIATES SOMERSET, NJ, 08873 Phone: 732-469-7646 Fax: 732-469-6641 E-Mail: HSKLIGER@PATMEDIA.NET

## **MEETING DETAILS**

Place: Bridgewater Manor, Bridgewater, NJ; (908) 658-3000

Time: 5:30 Cocktails (Cash Bar); 6:15 Dinner; 8:30 Adjourn

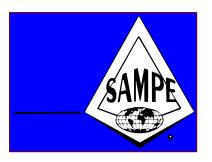
Cost: \$10.00 Advanced Registration; \$15.00 at Door; Students - Free

This meeting is open to all SAMPE members, spouses, guests, and other interested parties Reservations please contact John Osterndorf at 973-248-5885 or by email at <a href="mailto:sampejohn@yahoo.com">sampejohn@yahoo.com</a> by noon the Wednesday before the meeting.

**Directions to Bridgewater Manor**: From I-287 north, take exit 22A (206 south). Go thru two lights, Bridgewater Manor is on right. From I-287 south, take exit 22. Make right at end of ramp. Make next left, a jughandle to cross 202/206 to go south on 202/206. Go thru three lights, Bridgewater Manor is on the right.

SAMPE BEST CHAPTER AWARD WINNER 1990, 1991, 1992, 1993, 1995, 1996, 1997, 1998, 1999, 2000, 2001

SAMPE CHAPTER SERVICE EXCELLENCE AWARD WINNER 2002, 2003, 2004, 2005, 2006





# NEW JERSEY CHAPTER SAMPE OCTOBER NEWSLETTER

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### 2008 – 2009 MEETING SCHEDULE

September 8 – 11, 2008 – 40<sup>th</sup> International SAMPE Technical Conference, Memphis, TN Sponsored by Michagan Chapter October 2, 2008 – FRP Strengthening of the Concrete Pier at the Naval Station Earle at Sandy Hook NJ, Dr. Howard S. Kliger, H. S.

Kliger & Associates

November 6, 2008 – Tour of Alcan/Baltek Facility, Northvale, NJ

December 4, 2008 – Prefumery and Consumer Products, Lauren Castelli, Givaudan

Corporation

February 5, 2008 – TBD

March 5, 2009 – TBD

April 2, 2009 – TBD

May 7, 2009 – Election of Officers – TBD

May 18 - 21, 2009 – 53<sup>nd</sup> International SAMPE Symposium & Exhibition, Baltimore Convention Center, Baltimore, MD Sponsored by Baltimore/Washington, Midwest and Ohio Chapters

June 4, 2009 – TBD

July 9, 2009 – 26<sup>th</sup> Annual NJ SAMPE Golf Tournament, Picatinny Arsenal, NJ

### THE NEW JERSEY CHAPTER HAS A STUDENT CHAPTER AT DREXEL UNIVERSITY

## **JUNE & JULYMEETINGS**

At the June meeting, Dr. Louis A. Pilato gave an excellent presentation entitled Fire Retardant Intumescent Polyamide 11 Nanocomposites.

The New Jersey Chapter wishes to thank Dr. Louis A. Pilato for the excellent presentation.

On July 10<sup>th</sup>, 32 golfers attended the 25<sup>th</sup> Annual Golf Tournament.

**UPCOMING SAMPE EVENTS** 2009 SAMPE International Symposium and Exhibition, Baltimore Convention Center, May 18 – 21, 2009

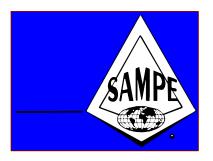
# "LEVERAGING M&P TECHNOLOGIES FOR A GREENER FUTURE"

The Baltimore/Washington, Midwest and Ohio SAMPE Chapters are sponsoring the 2009 ISS&E

2009 International SAMPE Technical Conference, Wichita, KS, October 19 – 22, 2009

### GLOBAL MATERIAL TECHNICAL SOARING TO NEW HORIZON

The New Jersey and Wichita Chapters are sponsoring the 2009 ISTC





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# FRP STRENGHTENING OF THE CONCRETE PIER AT THE US NAVAL STATION EARLE AT SANDY HOOK NJ

DR. HOWARD S. KLIGER H. S. KLIGER & ASSOCIATES SOMERSET, NJ, 08873 Phone: 732-469-7646 Fax: 732-469-6641 E-Mail: HSKLIGER@PATMEDIA.NET

#### ABSTRACT:

In the mid 1990's, the US Navy began studying the use of carbon and glass epoxy as external reinforcement of degraded concrete structure. The first trial was a deck reinforcement at the Norfolk shipyard, followed by trials at San Diego and Pearl Harbor. After becoming an accepted practice, the Navy elected to use carbon fiber epoxy for strengthening sections of the loading pier at Naval Weapons Center Earle, near Sandy Hook. In 2002, a number of concrete beams supporting the superstructure of the 2 mile long Naval pier at Earle were determined to be under strength. The repairs took place during the late summer of 2003, where the tension side of the 40 foot long beams were strengthened using unidirectional carbon epoxy laminates. This presentation provides some of the details of the repair process. In very practical terms, it describes some of the conditions and situations that arise in the actual construction environment that are very different from a laboratory. Also described are the quality control and assurance measures taken to insure a proper repair.

### **BIOGRAPHY**:

Howard Kliger is an engineering and marketing consultant to the composites industry. His recent emphasis has been with infrastructure related technology, and for the past five years, he has provided inspection and testing services for contractors and engineers that need certification for FRP concrete repair jobs. He has authored numerous technical papers and marketing reports and has been an active SAMPE member since 1975. He was Technical program co-chairman of the ISTC in 1989 and the ISSE in 1996 and 2002. He was co-general chairman of the 1998 ISSE and was elected a SAMPE Fellow in 1999. He received a Ph.D. in Engineering Mechanics from the University of Delaware in 1970.





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# 41<sup>ST</sup> INTERNATIONAL SAMPE TECHNICAL CONFERENCE SAMPE 2009 – WICHITA

At the Board of Directors Conference in Memphis, TN, the New Jersey and Wichita Chapters of SAMPE were awarded sponsorship of the  $41^{st}$  International SAMPE Technical Conference. The conference will be held Century II Performing Arts & Convention Center and the Hyatt Regency Wichita Hotel. The date of the conference is October 19 – 22, 2009.

The Theme of the conference is:

# Global Material Technology – Soaring to New Horizons.

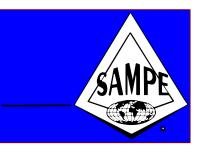
The technical program will be comprised of tutorials, sessions, panels and market treads sessions on advanced materials technologies such as fibers fabrics, resins, fabrication/ molding, high temperature materials and testing. Nanotechnology and small aircraft technology will each comprise approximately 25% of the program. Wichita has a number of small aircraft and design/fabrication companies, such as Hawker Beechcraft, Cessna, Sprint Aerospace and Bombardier Learjet, based in the area.

New Jersey will have major responsibility for the Technical Program, Keynote Speaker, and Budget. Wichita will have responsibility for Audio Visual, Local Arrangements, Local Publicity, and Volunteers. Wichita will also organize a number of aircraft related sessions and help identify the keynote speaker. The International Business Office and the Executive Cabinet of SAMPE will have responsibility for city site selection, hotel arrangements, exhibits, budget, off-site events, and overall finances and planning, with the Technical Director being responsible for Tutorials and Technical Program Oversight. Wright Patterson Air Force Base will assist with the Nanotechnology program.

The organizing committee is:

General Co-Chair	Ben Rasmussen, Dr. Melanie Violette
Technical Co-Chair	Dr. Howard Kliger Dr. Louis Pilato Dr. Wen-Fang Hwang Dr. Brad Lucht
Finance Chairs	John Osterndorf Bill Washburn
Key Advisors	Dr. Peter Wu Darrel Dugan John Tomblin Yeow Ng Len Poveromo

If you would like to assist with in organizing the conference, please contact one of the above personnel.





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### WELCOME NEW MEMBER

The New Jersey Chapter would like to welcome the following new chapter member:

Ahmad Abu Obaid	University of Delware
Jay Bhatia	<b>BASF</b> Corporation
Blake Carnahan	Lockheed Martin
Eric Garis	SI Group
John Madsen	Northrup Grumman
Darin Noel	ITT Corporation
Asuka Nomura	
Randolph Taylor	Cyborg Textile

## **NOVEMBER MEETING**

The New Jersey Chapter of SAMPE will be touring the facilities of Alcan Baltek Corporation in Northvale, NJ for it's November meeting on November 6, 2008. ALCAN COMPOSITES CORE MATERIALS offers you many decades of broad experience not only from one company, but from two leading companies in the composite business. Alcan Airex, Switzerland and Alcan Baltek, U.S.A. provide you as ALCAN COMPOSITES CORE MATERIALS a unique range of core materials, great depth of knowledge and unmatched support.

It is all at your service in choosing just the right engineered materials for the product you are designing or building. We will not only assist you in making the right material choice without costly or time-consuming trial and error, we will also direct you to the best fabrication techniques.

After the tour, arrangements are being made for dinner at a local restaurant.

Please plan to join the Chapter for the November Meeting for the Tour of Alcan Baltek.





## NEW JERSEY CHAPTER SAMPE OCTOBER NEWSLETTER Page 6

#### **EXECUTIVE BOARD**

#### CHAIRMAN:

Benjamin M. Rasmussen BMR Associates 908-561-0796/fax: 908-753-7917 bmrasscience@netcarrier.com

#### VICE CHAIRMAN:

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#### **TREASURER:**

John F. Osterndorf 973-248-5885 (cell)

sampejohn@yahoo.com SECRETARY:

Borys Schafran Evonik Degussa Corporation Tel 973-541-8172/ax 973-541-8161 borys.schafran@evonik.com

#### **PROGRAMS:**

Tony Constantino Coast Line International 516-532-3831 <u>Tconstantino2@yahoo.com</u>

#### **DIRECTORS:**

Howard S. Kliger H. S. Kliger & Associates, Inc. 732-469-7646/fax: 732-469-6641 <u>hskliger@patmedia.net</u>

#### Louis A. Pilato

Pilato - Consulting 732-469-4057/fax: 732-764-9747 <u>Pilato-consulting@att.net</u>

Benjamin M. Rasmussen BMR Associates 908-561-0796/fax: 908-753-7917 bmrassociates@netcarrier.com

#### **PAST CHAIRMAN:**

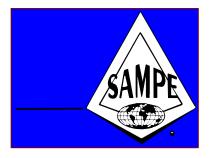
1977-1978 Raymond F. Wegman 1978 – 1979 William J. Russell 1979 – 1980 Michael Michno 1980 - 1981 Fred H. Ancker 1981 - 1982 Natalia Chujko 1982 - 1983 Robert J. Narsavage 1983 - 1984 Richard W. Reiter 1984 - 1985 Howard S. Kliger 1985 - 1986 John Burlage 1986 - 1987 John F. Osterndorf 1987 - 1988 Thomas J. Green 1988 - 1989 Harry S. Katz 1989 – 1990 Benjamin M. Rasmussen 1990 – 1991 Harry Tenney 1991 - 1993 Louis A. Pilato 1993 - 1994 John Burlage 1994 - 1995 Richard A. Walther 1995 – 1996 Frans van Anterpen 1996 – 1997 Kathleen A. Froelich 1997 - 1998 Gail D. DiSalvo 1998 - 1999 Ash Chopra 1999 - 2009 Benjamin M. Rasmussen

#### **SAMPE FELLOWS:**

1985 Raymond F. Wegman
1987 Dr. Carl H. Zweben
1989 Robert Pickney
1990 Dr. Frank K. Ko
1992 Fred H. Ancker
1993 Leonard Poveromo
1999 Dr. Howard S. Kliger
2001 Dr. Louis A. Pilato
2001 Harry S. Katz

#### **SENIOR HONORARY MEMBERS:**

Richard G. Adams Edward A. Gallagher Charles N. Muldrow William D. Timmons Raymond F. Wegman





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Fax: 714-899-8179	Fax: 201-387-6631	Fax: 973-541-8161
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Fax: 518-377-5628	Fax: 631-226-5190	Fax: 908-862-6110
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