

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

MAY NEWSLETTER & MONTHLY NOTICE MAY 5, 2011 (1<sup>ST</sup> THURSDAY)

HYBRID METAL-COMPOSITES MATERIALS, PROCESSES AND PRODUCTS

JAMES F. STEVENSON HONEYWELL AEROSPACE, RETIRED PHONE: 973-292-1585 Email: <u>jfscom@webatomics.com</u>

### **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 (award retired after 2006) SAMPE Chapter Sponsored Conferences: ISSE – 1990(Anaheim), 1994(Anaheim), 1996(Anaheim), 1998(Anaheim), 2002(Long Beach) ISTC – 1981(Mt. Pocono), 1989(Atlantic City), 2006(Dallas), 2009(Wichita) ISEC – 1994(Parsippany)





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## **2010 – 2011 MEETING SCHEDULE**

	<u>IN O DEHEDUEL</u>
September 9, 2010 – Henkel's Approach to Reduction to	March 3, 2011 – Resin Infusion - The Use of Spray on
Hexavalent Chrome in Conversion Coatings, Matthew Clark,	Bags. Joseph K. Domic, Smooth-On Inc., Easton, PA
Henkel Corporation, Madison Heights, MI	
October 7, 2010 – Improved Performance of Polyaryl Ether	April 7, 2011 – Phenolic Resins in Fiber Reinforced
Amide Matrix Resins, Borys Schafran, Evonik Degussa	Composites, Dr. Louis A. Pilato, Pilato Consulting, Bound
Corporation, Parsippany, NJ	Brook, NJ
October 11 – 14, 2010 42 <sup>st</sup> International SAMPE Technical	May 5, 2011 – Hybrid Metal-Composite Materials,
Conference, Salt Lake City, UT Sponsored by the Utah	Processes and Products, James F. Stevenson, Honeywell
Chapter	Aerospace, Retired, Election of Officers
November 4, 2010 – Non Destructive Inspection of Composite	May 23 - 26, 2011 – 55 <sup>th</sup> International SAMPE
Structures Using Line Scanning Thermography, Obdulia Ley,	Symposium & Exhibition, Long Beach Convention
Mistras Group, Princeton Junction, NJ	Center, Long Beach, WA Sponsored by Orange County
	Chapter
December 2, 2010 – Composites in Wind Energy, Peter	June 2, 2011 –
Toohey, Evonik Degussa, Parsippany, NJ	
February 3, 2011 – A Composite Blade for a Large Scale	July 7, 2011 – 28 <sup>th</sup> Annual NJ SAMPE Golf
Centripal Fan, Anthony Turchi and Russell Shaffer, Curtiss	Tournament, Picatinny Arsenal, NJ
Wright EPD, Phillipsburg, NJ	

**Notes** .... The NJ Chapter sponsors a student chapter at Drexel University.

### **APRIL MEETING**

At the April meeting, Dr. Louis A. Pilato of Pilato Consulting gave an excellent presentation entitled Phenolic Resins in Fiber Reinforced Composites. The New Jersey Chapter wishes to thank Dr. Louis A. Pilato for his excellent presentation.

## **UPCOMING CONFERENCES**

# SAMPE 2011 – ISS&E – Long Beach CA. May 23 - 26, 2011 Sponsored by SAMPE Orange County Chapter

## SAMPE 2011 – ISTC – Fort Worth, TX – Oct. 17 -20, 2011 Sponsored by SAMPE Dallas/Fort Worth Chapter





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## HYBRID METAL-COMPOSITES MATERIALS, PROCESSES AND PRODUCTS

## JAMES F. STEVENSON HONEYWELL AEROSPACE, RETIRED PHONE: 973-292-1585 Email: <u>jfscom@webatomics.com</u>

### **ABSTRACT:**

A hybrid metal-composite structure has the advantage of combining many of the best properties of metals and composite materials--synergies that can lead to exceptional performance--along with the challenges of interfacing these dissimilar materials. This talk will examine the rationale for hybrids and several applications: fiber metal laminates (GLARE and CentrAl) and 3D structures including turbine blades, flow control valves, pressure vessels, ships, electronic housings, and molten-metal bonded links.

### **BIOGRAPHY:**

Jim Stevenson was a Corporate Fellow in the Advanced Technology organization of Honeywell Aerospace from 1996 until his retirement in March of 2011. His recent professional work focused on performance of composite materials and applications of composites for mechanical and electronic structures and enclosures in an aerospace environment.

Previously Stevenson served in technical and management positions with GenCorp in Akron, OH. He supervised GenCorp's Extrusion Research Facility and developed several novel extrusion and molding applications, including directed flow technology (curved extrusion and rapid die change), control systems (multicomponent extrusion), novel designs for thin-edge (rocket insulation) dies, mold runner optimization strategies, and reactive materials modeling.

Early in his career, Stevenson was an Associate Professor with tenure in the Chemical Engineering Department at Cornell University.

Stevenson has edited a book *Innovation in Polymer Processing: Molding*, published three book chapters, more than 60 papers, and holds 19 patents. He earned a Ph.D. in Chemical Engineering at the University of Wisconsin and a B.S.Ch.E. from Rensselaer Polytechnic Institute.





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# ELECTION OF OFFICERS FOR 2010 – 2011 Fiscal Year

At the April Board of Directors Meeting of the New Jersey Chapter of SAMPE, the following slate of candidates were proposed for the next Fiscal Year 2011–2012:

Chairman:	Ben Rasmussen
Vice Chairman:	Borys Schafran
Treasurer:	John Osterndorf
Secretary:	Jane Arlauskas
Directors:	Howard Kliger
	Louis Pilato
	Ben Rasmussen
Programs:	Tony Constantino
Members:	Jane Arlauskas



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# 28Th ANNUAL NJ SAMPE GOLF TOURNAMENT

# DATE: JULY 7, 2011 PLACE: PICATINNY GOLF COURSE PICATINNY ARSENAL, NJ TEE TIME: 11:00 A. M.

# COST: GOLF AND DINNER: \$60.00 DINNER: \$10.00 (Dinner at approximately 5:00 PM)

# CONTACT JOHN OSTERNDORF BY E-MAIL AT sampejohn@yahoo.com TO SIGN UP

## **RESERVATIONS MUST BE MADE BY JUNE 26, 2010 (NO EXCEPTIONS)**

The 28th Annual New Jersey Chapter of SAMPE Golf Tournament is returning to Picatinny Golf Course. The date of the tournament is July 7, 2011. Picatinny Golf Course has a practice facility (chipping, putting, and driving into a net) at the Club House for golfers who arrive early.

Directions to Picatinny: Take I-80 westbound and at Exit 34 to Route 15 northbound (Sparta & Picatinny Arsenal). Go through traffic light; bear right to Picatinny Entrance (up small hill) before underpass. Enter Picatinny and continue to the guard shack. The guard shack will have the names of those attending the golf tournament and dinner. All attendees must have identifications (preferably photo identification) for entrance onto Picatinny Arsenal. Please follow the Guards instructions. Your cars will be searched (including the engine and trunk). After the security check, follow the main road to Cannon Gate. At the Cannon Gate bear to the right (before the traffic light) and follow for approximately a quarter of a mile and left turn. The golf course is on your left.





### NEW JERSEY CHAPTER MAY NEWSLETTER

### **EXECUTIVE BOARD**

#### CHAIRMAN: Benjamin M. Rasmussen

BMR Associates 908-561-0796/fax: 908-753-7917 bmrassociates@netcarrier.com VICE CHAIRMAN:

### Gail D. DiSalvo

GTD Consulting 908-953-0849/fax: 908-766-6373 <u>disalvogaild@aol.com</u>

### **TREASURER:**

John F. Osterndorf 973-248-5885 (cell) sampejohn@yahoo.com

#### **SECRETARY:**

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

#### **PROGRAMS:**

Tony Constantino Fiber-Line Inc 215-997-9181/Cell : 267-885-7144 tcconstantino@fiber-lineinc.com

#### **MEMBERSHIP**:

Jane Arlauskas Evonik Degussa Corporation 973-541-8165 jane.arlauskas@evonik.com

#### **DIRECTORS:**

Howard S. Kliger 732-469-7646 hskliger@comcast.net Louis A. Pilato Pilato - Consulting 732-469-4057/fax: 732-764-9747 lapilato@optonline.net Benjamin M. Rasmussen BMR Associates 908-561-0796/fax: 908-753-7917 bmrassociates@netcarrier.com

#### PAST CHAIRMAN:

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2001 Dr. Louis A. Pilato
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#### **SENIOR HONORARY MEMBERS:**

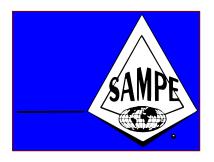
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Fax: +1 973 808 6886	Fax: 513-688-3201	Fax: 203-922-1814
jim.wittig@altana.com	ahead@braider.com	efiberstec@aol.com
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Fax: 714-899-8179	Fax: 201-387-6631	Fax: 973-541-8161
pgrantham@airtechintl.com	marc.anderson@alcan.com	borys.schafran@evonik.com
www.airtechintl.com	www.alcanbaltek.com	www.evonik.com
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(212) 268-0003, X101	(770) 475-7977	215-536-1420
pmarks@argosyinternational.com	Fax: (770) 475-7477	mshafer@fabricdevelopment.com
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518-377-6471, X226	631-226-0500 X25	267-885-7144
Fax: 518-377-5628	Fax: 631-226-5190	tcconstantino@fiber-lineinc.com
dhauber@automateddynamics.com	heathero@coast-lineintl.com	www.fiber-lineinc.com
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Fax: 908-862-6110	Fax: 201-823-0691	Fax: 603-926-0598
<u>eaversenti@magnaplate.com</u>	sjmonte@4kenrich.com	rvh@nfgsales.com
www.magnaplate.com		www.NFGSales.com
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570-282-8403	315-492-7571	609-291-5800
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www.gentex.com	www.loctite.com	www.princesports.com
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908-953-0849	201-316-9218	973-994-4334
Fax: 908-766-6373	sajal.das@lonza.com	Fax: 973-994-3341
gail.disalvo@att.net	www.lonza.com	Harryskatz@aol.com
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925-458-8000	201-666-4880	(856) 769-8565
Cell 717-817-1532	Fax: 201-666-4303	Fax: (856) 769-8566
Michael.portwood@us.henkel	mekmail@prodigy.net	rarainboth@mmm.com
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