

## **Joint SAMPE/ASM March Event**

**Speaker: David Jensen, Boeing**

**Presentation: Adaptation and Implementation  
of Laser Shock Peening for the F-22**



**Gold Sponsor:**

**[Henkel Corporation](#)**

**Silver Sponsors:**

**[Airtech International](#)**

**[General Plastics](#)**

**[Owens Corning](#)**

**[Plascore](#)**

**[Torr Technologies](#)**

**Corporate Sponsors**

**[Altair](#)**

**[American Autoclave Company](#)**

**[Applied Aerospace Structures](#)**

**[Assembly Guidance Systems](#)**

**[Composites Atlantic](#)**

**[Composites Solutions Corporation](#)**

**[CompuDAS](#)**

**[Cytec](#)**

**[Delsen Testing Laboratories, Inc.](#)**

**[Heatcon Composite Systems](#)**

**[Hexcel](#)**

**[Intec](#)**

**[National Aerospace Supply Co.](#)**

**[NSE Composites](#)**

**[Plasmatreat USLD](#)**

**[Quadrant Engineering](#)**

**[Richmond Aircraft Products](#)**

**[Technology Marketing, Inc.](#)**

**[Tencate Advanced Composites](#)**

**[USA](#)**

**[Textile Products Incorporated](#)**

**[The Warm Company](#)**

**[Toho Tenax America](#)**

**[Victrex USA Inc.](#)**

The F-22 Raptor, like all maturing military aircraft programs, will undergo a series of retrofit and

modernization programs to resolve potential shortfalls and extend airframe life beyond its original design. These depot-based aircraft modification campaigns must be efficient enough to maintain and preserve military capability.

This presentation chronicles the maturation and implementation of Laser Shock Peening on F-22 primary structure to reduce risk of cracking and pave the way for airframe life extension. The Boeing Company teamed with Metal Improvement Company to mature this remote site capability and coordinated with the F-22 Team to implement it in a manner which reduces flow time by 50%. LSP treatment design and test program results will be covered. In addition, information on the process, equipment, and logistic adaptations necessary to merge state-of-the-art LSP processes with the practicalities of a real world fleet modification program are discussed.

**When:** Tuesday, March 22, 2011

Social Hour: 5PM

Dinner: 6PM

Speaker: 7PM

**Where:** Galliano's Cucina

16435 Military Rd S, Seatac, WA 98188 (near SeaTac Airport) Free Parking

Directions: From WA-99 just south of Hwy. 518, turn East on S 160th which turns into Military Rd. Galliano's is on the right, just beyond Safeway. Note: there is another Galliano's in Tukwila on Interurban Ave so don't go there!

**Price:** \$15 members, \$10 students & retirees, \$20 nonmembers  
Please RSVP to [newsletters@sampeseattle.org](mailto:newsletters@sampeseattle.org)

## **Announcements**

**Publication & Sponsorship Information:**

Please send any comments, questions or concerns about the newsletter to Joel Payne at [newsletters@sampeseattle.org](mailto:newsletters@sampeseattle.org).

# SAMPE

Presented by the Seattle Professional Chapter

Society for the Advancement of Material and Process Engineering

**March, 2011**  
**Newsletter**

## Gold Sponsor:

[Henkel Corporation](#)

## Silver Sponsors:

[Airtech International](#)

[General Plastics](#)

[Owens Corning](#)

[Plascore](#)

[Torr Technologies](#)

## Corporate Sponsors

[Altair](#)

[American Autoclave Company](#)

[Applied Aerospace Structures](#)

[Assembly Guidance Systems](#)

[Composites Atlantic](#)

[Composites Solutions Corporation](#)

[CompuDAS](#)

[Cytec](#)

[Delsen Testing Laboratories, Inc.](#)

[Heatcon Composite Systems](#)

[Hexcel](#)

[Intec](#)

[National Aerospace Supply Co.](#)

[NSE Composites](#)

[Plasmatreat USLD](#)

[Quadrant Engineering](#)

[Richmond Aircraft Products](#)

[Technology Marketing, Inc.](#)

[Tencate Advanced Composites USA](#)

[Textile Products Incorporated](#)

[The Warm Company](#)

[Toho Tenax America](#)

[Victrex USA Inc.](#)

If your company is a 2011 SAMPE Seattle Chapter sponsor (see list to the left) and your hyperlink does not work, it means we do not have your preferred web address! To correct this, please email Joel Payne at [newsletters@sampeseattle.org](mailto:newsletters@sampeseattle.org).

**Website Address:** Check us out and keep up to date at

[www.sampeseattle.org](http://www.sampeseattle.org).

Questions about the website? - Please contact

[webmaster@sampeseattle.org](mailto:webmaster@sampeseattle.org).

### Board Business E-mail Distribution List:

If you would like to be on the "Board & Others" distribution that is used to inform people of Board meetings and conduct other board business, please send an email with subject "SAMPE Board Distribution" to [Arlene Brown](mailto:Arlene.Brown).

**Email Us:** You can email the Board at [seattlesampe@hotmail.com](mailto:seattlesampe@hotmail.com)

### Job Postings:

If you have a job posting, please send it to Bob Yancey for posting on the website.

## Mark Your Calendars

Mar 22, 2011 Chapter Meeting – David Jensen of Boeing will be presenting in a joint chapter meeting with ASM

April 26, 2011 Chapter Meeting – Student Night at UW

## Volunteer Opportunities

Seattle Central Community College Mentor Night - March 3, 2011

6:00-8:00 PM. For more information or to sign up, please visit:

<http://www.pseconline.org/Events/MentorNights/>

Science & Engineering Fair Judges needed - Volunteer to be a judge at the Central Sound Regional Science & Engineering Fair and encourage young scientists and engineers. More info at:

<http://scidiv.bellevuecollege.edu/sami/scifair/getinvolved.html>

### 2010 – 2011 Seattle SAMPE Officers

|   |  |
|---|--|
| <i>International Director</i>             | <i>Arlene Brown – Boeing</i>           |
| <i>Inter. Dir., Immediate Past Chair</i>  | <i>Jeff Gavin – Boeing</i>             |
| <i>Chair &amp; International Director</i> | <i>Anthony Nguyen – Boeing</i>         |
| <i>1<sup>st</sup> Vice Chair</i>          | <i>Laura Lu – Boeing</i>               |
| <i>2<sup>nd</sup> Vice Chair</i>          | <i>Robert (Bob) Yancey – Altair</i>    |
| <i>Treasurer</i>                          | <i>Jacob Grob – Boeing</i>             |
| <i>Secretary</i>                          | <i>Joel Payne – Toho Tenax America</i> |
| <i>PSEC Rep.</i>                          | <i>Kay Blohowiak – Boeing</i>          |