



ASM - Atlanta

Newsletter of the Atlanta Chapter of ASM International
<http://www.asm-atlanta.org/> Normally Meets 3rd Tuesday
May, 2003 Volume 9 Number 5

ASM/AIAA/SAMPE Joint Meeting

Tuesday Evening, May 20, 2003

In the Georgia Tech School of Materials Science & Engineering
Located in the Love Building - 3rd Floor Atrium

Widespread Fatigue Damage Prevention in the Commercial Transport Fleet

presented by

Aubrey Carter

General Manager Enabling Technology, Delta Airlines, Inc.
And Chairperson - Airworthiness Assurance Working Group (AAWG)

also

Determination of Equivalent Initial Flaw Sizes from Inspection Data on Gas Turbines

presented by

Amanda Wilson

A 10-minute Ph.D. Candidate presentation
School of Materials Engineering, Georgia Institute of Technology

Tuesday Evening, May 20, 2003

Wine Reception & Social: 6:00 PM
Dinner: 6:30 PM
Introductions & Business: 7:15 PM
Ms. Wilson's Presentation: 7:30 PM
Mr. Carter's Presentation: 7:45 PM
Meeting adjourns by 9:00 PM
Dinner Costs: \$20.00 Professionals, \$6.00 Students

WHERE -- The GA Tech School of Materials Science & Engineering, in the J. Erskine Love Manufacturing Building. A map is provided.

Menu: Northern Italian Buffet Field greens with Focaccia croutons, caprese salad, Vegetable lasagna, sautéed chicken balsamico, Green beans with sundried tomatoes, garlic bread, Cheesecake assortment, Iced tea and water, Coffee bar.

Reservations: RSVP - by noon on Monday, May 19, to **Marlene White**, Tel: (404) 894-2850, Fax: (404) 294-9140, marlene.white@mse.gatech.edu

Everyone is always welcome for ASM meeting programs at no cost. But, try to enjoy both meal and fellowship.

About the Presentation by Mr. Carter.

"An Overview of the Development of Commercial Transport Aging Airplane Programs".

During the past fifteen years, the commercial transportation aviation industry has institutionalized airframe structural airworthiness through the development and implementation of "Aging Airplane Programs." These programs evolved from the National Transportation Safety Board's safety recommendations stemming from investigation of the April 28, 1988 Aloha Airlines B737-200 explosive decompression and structural failure accident.

An overview of these aging airplane programs, developed under the auspices of Federal Aviation Administration (FAA) Aviation Rulemaking Advisory Committee (ARAC) Airworthiness Assurance Working Group's (AAWG) formal tasking is presented. Included in the presentation is a discussion of the technical objectives, phased approaches, and subsequent service actions implemented (or presently in the rule-making process) to preclude structural failure caused by age related factors in the commercial large airplane fleet (non-commuter aircraft).

Specifically, the aging airplane program's five elements: corrosion prevention and control, service bulletin modifications and inspections, supplemental structural inspections, fuselage pressure boundary repair assessment, and widespread fatigue damage prevention are summarized.

Aubrey Edward Carter

Bachelor of Aerospace Engineering - Georgia Tech
MS Aerospace Engineering - Georgia Tech

Mr. Carter is responsible for technical management of Enabling Technologies Teams, which include Damage Tolerance Technology, Maintenance & Materials Technology, Chemical Process Technology and Mechanical Process Technology. These Teams are

responsible for research and development of aircraft emerging technologies in the areas of predictive maintenance, condition based maintenance, reliability centered maintenance, probabilistic methods, critical failure analysis, including failure modes and effects analysis, functional hazard assessment, system safety analysis, nondestructive testing, along with development of the technical content of Delta's fueling, deicing, and dangerous goods programs. These responsibilities have a strategic focus with emphasis on innovation and creativity, and technology "gate-keeping," requiring heavy industry interaction. Other functions include FAA approval of technical data relating to aircraft structures - static strength, fatigue, damage tolerance, metallic and nonmetallic processes, and Delta's representative on many industry regulatory oversight committees.

Nominations for Officers of the Atlanta Chapter of ASM International for 2003-04 By **Kim Spinsby**

Here is the list of nominees for ASM Atlanta Chapter for 2003-2004. Your nominating committee of **Kim Spinsby**, **Naresh Thadhani** and **John Mihelich** collected this slate of outstanding individuals. Others can be nominated from the floor at the May meeting when the elections are held or you can submit your suggestions for names to nominate for each of the positions to the individuals listed on the nominating committee.

Steve Johnson:	Chairman
George Kremer:	Vice Chair, Industry
Hamid Garmestani:	Vice Chair, Academic & Programs
Gatum Patel:	Treasurer
Jud Ready:	Secretary

Recent Discussions with Dr. Don Muzyka, President of ASM International

The Atlanta Chapter of ASM was most fortunate to have the President of ASM International, Dr. Don Muzyka, come to visit our Chapter for the

April meeting. He presented an excellent technical talk to the membership at the evening meeting, which was particularly interesting for those who have interests in the history of science and technology.

During the afternoon, Dr. Muzyka met with the Executive Committee of our Chapter to review our activities. At this meeting, he also outlined areas of the focus of his service as President of ASM International. We feel that the overall membership of both the Atlanta Professional ASM Chapter and the Student ASM Chapter might be interested in this focus. Very positive and constructive changes are being made at this time within the ASM culture.

Outline of some comments made by Dr. Muzyka to Atlanta ASM & GT ASM Student Chapters on April 22, 2003:

ASM - Areas of Strength & Areas of Concern Dr. Don Muzyka

Strengths:

Volunteers with Passion.
Events that bring our members together.
Strong overall financial position.
Respected publications.
Web activities.
Chapter network.
Awards that are worth winning.

Areas of Concern:

Declining membership.
Corporate Loyal.
Events Planning.
Recent financial setbacks.
Relationships with other societies.
Invigorating Chapters.
Communications.
Recent Education "Sales".

Where are we going - ? Strategic Planning

Membership Development.
Education & Professional Development.
Webcentricity.

Society Events Planning.

Areas of Presidential Focus

• Communication

- Informing & exciting the membership.
- The 52-12 Plan.
- You may be asked to help.

• Corporate Loyal

- The connection of ASM - members - their employers.
- The value of membership & being involved.
- The value of business forums.

Relationships with other technical societies

• Other domestic materials related societies.

- Shared services / A new "services" corporation?
- TMS/MTI/SSCI/NACE/AWS/AcerS/MRS/ISS?

• Domestic, non-materials related societies

- Web based information?
- E-membership?
- SAE/ASME/IEEE/SME?

• International

- Web based information?
- E-membership?
- What countries, what societies?

• Trade Associations?

The Culture We Need

- Listening & Responding.
- Service to Members/Customers.
- Cooperation within ASM.
- Cooperation with Other Societies.
- Fiscal Responsibility.
- Communication (openness).
- Teamwork.
- Involvement/Knowledge/Participation.
- Sense of Urgency.
- Be the Best.
- Passion for What We Do.

Transitions

Welcome to New Members of the Atlanta Chapter of ASM

ASM International has informed us of the following people who have either become new professional members of ASM or have transferred their membership to the Atlanta Chapter of ASM. We welcome each of you to the Atlanta Chapter and hope that the chapter's programs will help expand your materials vision and opportunities. Several of you we already know, such as Jenny Ruth from the GT Student Chapter.

Hamid Garmestani
School of Materials Science & Engineering
Georgia Tech

Ken Hardy
Energy Beam Systems

Jenny Ruth Harrison
School of Materials Science & Engineering
Georgia Tech

Alejandro R. Ibanez
School of Materials Science & Engineering
Georgia Tech

Joseph O. Maciejewski
Applied Technical Services

Gregorio R. Murtagian
Georgia Tech

Troy A. Robinson
Sulzer Metco

Alan Segrave
Clayton Group Services

David L. Sprinkle
John Deere

Atlanta ASM Industrial Relations

George Kremer, the Atlanta ASM Chapter Vice-Chair for Industrial Relations is developing a project to gain important information about the "flavor" of ASM related companies in the Atlanta metro area. George plans to call and e-mail members to take part in a brief survey to help the ASM Vice-Chair of Industry in:

1. Making sure their contact information is up to date.
2. Obtaining web page information concerning the technical capabilities and/or products of their company.
3. Determining if other members within their company would benefit from association with ASM.
4. Approach those companies having materials interests, yet not with ASM members, to determine if and how they might benefit from joining and working with the Atlanta ASM Chapter.
5. Determining how individual professional members would like to participate in ASM events, and / or support the ASM - Atlanta Chapter.

George requests suggestions for the effectiveness of this project.

Please contact him at:

George Kremer
1220 Lochshyre Way, Lawrenceville, GA 30043-6454.
770-339-9938V; 770-339-6792F,
gwkremer@bellsouth.net

ASM-Atlanta Revamps Web Presence <http://www.asm-atlanta.org/>

Just like your house may need a new coat of paint from time to time, or even a new kitchen or bath, so too does your local ASM chapter's website! If you had visited the site (<http://www.asm-atlanta.org/>) recently you were undoubtedly aware that the digital equivalent of shag carpeting and parquet floors were in serious need of updating. Well, Jud Ready (ASM-Atlanta Secretary and Membership Committee Chairman) has done a splendid job completely tearing down the old site and building a new one. The new site offers the following:

- Newsletter Archive (currently dating back to September 2000).
- Upcoming Meeting Schedule & Driving/Parking Directions.
- Services & Outreach (info about our various scholarships and other programs).

- Membership Roster (includes single-click access to the ASM-International database to update your membership record).
- Stories & Photos of meetings and other events
- Job Opportunities (includes posting capabilities).
- Executive Committee Roster (get in touch with the chapter leadership).
- Search Page (search the entire site by key word).
- Feedback (submit feedback to the executive committee).
- "Ask an Expert" (an open forum for materials engineering discussions).
- Other Useful Links.

Please visit our new and improved site (same address), and tell us what you think!

[Http://www.asm-atlanta.org/](http://www.asm-atlanta.org/)

Jud Ready, PhD

Research Engineer II

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<<http://www.readymadeparties.com/jud/>>

ASM Scholarships

http://www.mse.gatech.edu/academics/scholarships/ASM_scholarships/asm_scholarships.html

Description: Announcing three \$1,000 scholarships for incoming MSE students - including both freshmen and transfer students.

The Atlanta Chapter of ASM International sponsors these scholarships. ASM International is the materials society for materials engineers and scientists, a worldwide network dedicated to advancing industry, technology and applications of metals and materials.

ATLANTA ASM CHAPTER SUSTAINING MEMBERSHIPS

Metals & Materials Engineers, (MME) is a Sustaining Member for the Atlanta Chapter of ASM International. Sustaining Member companies are significant to the work of ASM.

Contact the Membership Committee Chair: **Dr. Jud Ready** at 404-385-4497, or jud.ready@gtri.gatech.edu. Your organization's commitment to this program will provide a valuable contribution to the education and development of young materials scientists and engineers. Please read again the Materials Educational activities described in this issue, along with the referenced web site, to get a perspective of

some of the aims for your chapter. Your company's participation can have an extraordinary effect.

Features of ASM-Atlanta

- Program Notes for Meetings.
- Chairperson's note to members.
- Career Development: job opportunities or jobs needed.
- Company Feature.
- Technical Features.
- Education Feature: Materials course offerings.
- Georgia Tech Student Chapter News.
- Member News:
 - Special Events, Awards & Honors.
 - New Members.
 - Deaths.
 - Transitions.
- ASM International News.
- Advertisements.
- Outreach (ASM members to Schools, Scouts, etc.).

Bill Livesay, Editor *ASM-Atlanta*.

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Membership Committee Chair: Jud Ready

See above under "Secretary"

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Georgia Tech Student Chap President,
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Communications & Web Site: Jud Ready

Georgia Tech, Atlanta, GA 30332; 404-894-1475V
404-894-9140F, See above under "Secretary"

Kim B. Spinsby: Immediate Past Chair & Finance

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John L. Mihelich:

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