



# Newsletter

Volume 36, Number 1, October 2005

## **October Dinner Meeting - An Overview of the Center of Excellence on Advanced Materials in Transport Aircraft Structures (AMTAS)**

*Mark E. Tuttle*

**AMTAS Director - Dept. Mechanical Engineering**

In December 2003 the FAA announced a joint award to the University of Washington (UW) and Wichita State University (WSU) to create a new FAA Joint Advanced Materials and Structures Center of Excellence (JAMS). Both universities have since formed alliances with other academic partners. The WSU partners include Northwestern University, Purdue University, Tuskegee University, University of Delaware and University of California at Los Angeles, while the UW partners include Washington State University, Oregon State University, and Edmonds Community College. Both the UW and WSU have established offices on their respective campuses to facilitate coordination among team members. Activities of the UW team are managed by the Center for Advanced Materials in Transport Aircraft Structures (AMTAS), while activities of the WSU team are managed by the Center of Excellence for Composites and Advanced Materials (CECAM).

Mark E. Tuttle is Professor and Chair of the Mechanical Engineering Department at the University of Washington. He is also Director of the FAA-sponsored Center of Excellence on Advanced Materials in Aircraft Structures (AMTAS). He received a BS in Mechanical Engineering (1975) and an MS in Engineering Mechanics (1978), both from Michigan Technological University, and a Ph.D in Engineering Mechanics (1984) from Virginia Polytechnic Institute and State University. His professional experience includes positions as Research Scientist at Battelle-Columbus Laboratories (1978-81), Visiting Scientist at Riso National Laboratories (Denmark, 1984-85), Summer Faculty Fellow at NASA-Langley Research Center (1988), and Ed Wells Summer Faculty Fellow at the Boeing Company (2000). He joined the University of Washington as an Assistant Professor in 1985, and was promoted to Associate and Full Professor in 1990 and 1995, respectively. Professor Tuttle's research interests involve polymeric composite materials, composite structural design philosophies, viscoelasticity, and adhesion mechanics. He has authored or co-authored over 120 journal and conference proceeding articles and one textbook.



His presentation at the October Dinner Meeting will focus primarily on AMTAS structures and activities. The overall mission of AMTAS will be described as well as current research and educational projects. Opportunities for increased interactions between AMTAS members and additional companies and/or other industrial segments will be discussed.

## Welcome to the 2005-2006 AIAA Year

A new section year is upon us and a lot of exciting events are in store. The section website will be updated regularly with the latest schedule of events and news regarding section members and activities. The site can also be used to reserve seats at upcoming dinner meetings and lectures. Visit our site at <http://www.pnwaiaa.org>

Please join in welcoming our new and continuing AIAA section officers and council members:

**Chairman:** David Lednicer  
**Vice-Chairman:** Paul Kostek  
**Treasurer:** Andrew McComas  
**Secretary:** Michelle Evans  
**Advisory Council 1:** Doug Ball  
**Advisory Council 2:** Kari Seppanen  
**Advisory Council 3:** Howard Rush  
**Advisory Council 4:** Christian Carpenter  
**Past Chairman:** Dave Paisley  
**Vice-Chair-Elect:** Dr. Scott Eberhardt  
**Treasurer-Elect:** Chris Nelson  
**Secretary-Elect:** Jon Lee

### Chairman's Corner

One hundred years into the age of flight, we live in a truly global world. As an example, many components of the current Boeing products come from all over the world. In return, Boeing delivers aircraft to the world's airlines. With this flow of tangible items comes a flow of information. Engineering information is sent to foreign vendors and received from them. With the Internet, this flow has become a deluge.

Despite this flow of information business to business, I have witnessed a decline in the flow of information within the overall engineering community, both domestically and around the world.

Companies used to have their engineers publish detailed technical papers describing the design of their products. National research agencies, such as NASA, used to publish wind tunnel and flight test reports that included all of the details of the test. I have noticed that now we tend to just get overview papers and reports.

The AIAA can serve as a medium for improving the flow of information within the overall engineering community. The local chapter events, national and international technical conferences are all valuable venues for the sharing of information between engineers.

I've worked for small companies my entire career, the minimum being two people, and the maximum being 12,000 people. As these companies have had limited resources, I have had to be creative in finding the information necessary to do my job. The AIAA has been an important part of this pursuit of information.

Attending dinner meetings is an excellent way to get tapped into the flow of information. Our local chapter's dinner meetings have served for me as an important mechanism for finding out what was going on in our industry. In the seventeen years I have belonged to the PNW chapter of the AIAA, I have attended many dinner meetings where I have listened to presentations on a variety of subjects and met many people that I have struck up friendships with.

One of my goals as chapter chairman is to increase attendance at our dinner meetings. Having more people present benefits everyone, in terms of networking and sharing information. To this end, I encourage you to attend our dinner meetings and to recruit others you know to attend. I find that by asking around my workplace, I can double or triple the number of people attending a dinner meeting from our company. I look forward to seeing you at our meetings this coming year.

David Lednicer  
AIAA PNW Chapter Chairman

## Joint AIAA/SFTE Lecture - Dinner Meeting

Date: **Tuesday, October 18, 2005**  
Place: Old Spaghetti Factory  
2801 Elliott Ave, Seattle, WA 98121  
Time: 6:00 PM Social, No-Host Bar  
6:30 PM Dinner (lasagna, spaghetti, or chicken Caesar salad)  
7:00 PM Program  
Dinner Price:  
\$15 AIAA/SFTE Members and Guests  
\$18 Non-Members  
\$5 Students and Educator Associates  
Program Only: \$5 (Free for persons 17 and under)

**Please Note: New signup options via our new website:**  
AIAA Sign up online at <http://www.pnwaiaa.org> -> reservations  
Or send email to [reservations@pnwaiaa.org](mailto:reservations@pnwaiaa.org) (including meal choice)  
You will receive a confirmation e-mail.  
Or call **David Lednicer at (425) 643-9090**  
**SFTE Mike Bartlett** – [michael.f.bartlett@boeing.com](mailto:michael.f.bartlett@boeing.com)  
Please make reservations by Monday, October 17th  
*A reservation is a commitment to pay!*

Section website: <http://www.pnwaiiaa.org/>  
 National website: <http://www.aiaa.org>

Please submit newsletter materials to the editor by the 21<sup>st</sup> of October for the November Newsletter.

<b>Outstanding Section Awards</b>	<b>Membership Award</b>
1972-1973	1997-1998
1977-1978	<b>Young Member</b>
1978-1979	<b>Activity Awards</b>
1991-1992	1990-1991
1993-1994	1991-1992
1994-1995	1994-1995
	1995-1996
<b>Section Special Event Awards</b>	<b>Career Enhancement Award</b>
1976-1977	1997-1998
1977-1987	<b>Newsletter Awards</b>
1978-1979	1994-1995
1982-1983	1995-1996
1987-1988	1996-1997

A PUBLICATION OF AIAA THE PACIFIC NORTHWEST SECTION  
**Address Corrections**

Send to: **AIAA**  
**1801 Alexander Bell Dr.**  
**Reston, VA 22091**

Now make corrections on-line at  
<http://www.aiaa.org>  
 (Join/Renew/Update). Membership ID needed

## Section Officers and Directors

Position	Name	Address (Mail stop if Boeing*)	Phone	Email address
<b>Council</b>				
Chairman	Dave Lednicer	2133 152nd Ave NE/Redmond, WA 98052	(425) 643-9090	dave@amiwest.com
Vice-Chairman	Paul Kostek	6M-EU	(425) 965-6047	Paul.J.Kostek@boeing.com
Secretary	Michelle Evans	02-10	(425) 266-2951	michele.c.evans@boeing.com
Treasurer	Andrew McComas	2133 152nd Ave NE/Redmond, WA 98052	(425) 643-9090	mccomas@amiwest.com
Advisory Council	Christian Carpenter	P.O. Box 97009, Redmond, WA 98073-9709	(425) 882-5710	christian.carpenter@rocket.com
Advisory Council	Howard Rush		(425) 746-5997	hmrush@comcast.net
Advisory Council	Doug Ball	67-LH	(425) 234-1016	douglas.n.ball@boeing.com
Advisory Council	Kari Seppanen	14-KF	(206) 655-3356	kari.j.seppanen@boeing.com
Past Chairman	Dave Paisley	0R-MP	(425) 717-5691	david.j.paisley@boeing.com
<b>Elected, non-voting</b>				
Vice-Chairman-Elect	Scott Eberhardt	P.O. Box 352400, UW, Seattle, WA 98195	(206) 543-6508	scott@aa.washington.edu
Secretary-Elect	Jon Lee	02-XJ	(425) 717-5529	Jonathan.P.Lee@boeing.com
Treasurer-Elect	Chris Nelson	6712 183rd St SW, Lynnwood, WA 98037	(425) 778-7853	ccnelson@comcast.net
<b>Appointed</b>				
Webmaster	Andrew McComas	2133 152nd Ave NE/Redmond, WA 98052	(425) 643-9090	mccomas@amiwest.com
Honors & Awards	Scott Eberhardt	P.O. Box 352400, UW, Seattle, WA 98195	(206) 543-6508	scott@aa.washington.edu
Retired Members	Tom Holgate	2704 SW 314th, Federal Way, WA 98023-7842		holgatz@aol.com
Newsletter	Open			
Museum of Flight Liaison	Open			
Pre-College Outreach	Scott Eberhardt	P.O. Box 352400, UW, Seattle, WA 98195	(206) 543-6508	scott@aa.washington.edu
Young Professionals	Emmanuel Domingo	03-JP	(206) 227-7819	emmanuel.m.domingo@boeing.com

\* All Boeing members have the address of P.O. Box 3707, Mail Code xx-xx, Seattle, WA 98124-2207



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