



March 2008 Dinner Meeting

You Want to Be An Aerospace Engineer?

John Korn

P-8A Poseidon, Aircraft System Technology AIT Manager, Boeing



Join John Korn in a perspective on one man's journey through an Aerospace career. Have you often wondered, "Why do I want to be an Aerospace Engineer? How did I get here? What have I really learned? Did I really make a contribution? Do I have the right stuff?" He has often wondered about these questions himself.

Mr. Korn would like to provide you with some personal thoughts and insights on a journey of over 26 years of Aerospace Engineering experience; all of those golden years with The Boeing Company.

Mr. Korn has worked on several airplane programs and will discuss some of the highlights of those programs, the work he



was involved with and the contributions that were made.

The following is a brief summary of some

programs to be reflected on: Power Plant division for the commercial 757 / 767 / 737 fleet of aircraft, the B-2 bomber program as a finite element modeler, Joint Strike Fighter (JSF) as lead engineer of the Loads Integration and Finite Element

Modeling group, the Joined Wing Project in a stress and project manager type role, the F-22 program, and a management position on the E-10 program.

The final stop will be the 737 MMA (Multi-mission Maritime Aircraft). This is his current position as a Senior Manager in charge of the Aircraft System Technology AIT group. Oversight includes: Flight Technologies, Wind Tunnel Tests, Flight Test, Static and Fatigue Tests, Loads, Dynamics, Flutter, Structural Integrity, Durability and Damage Tolerance, Fatigue and Finite Element Modeling disciplines.

By this time in a career you would think all the questions have been answered. Come to the meeting to find out.

Mr. Korn has a Bachelors of Science degree in Civil Engineering from Washington State University and a Masters of Science degree from Washington State University. He has also obtained his Professional Engineering license in Civil Engineering and has a Masters in Project Management.

Mr. Korn and his wife Pam live on Lake Tapps and have three children. John's other hobbies include: sports (football, basketball, and baseball), music (listening, trumpet, guitar), camping, hiking, motorcycle riding, muscle cars, car restoration, and boating activities.



PNW AIAA/SFTE Presentation

Date: Wednesday, March 12, 2008

Location: Azteca
150 112th Ave NE
Bellevue, WA

Time: 6:00 PM Social, no-host bar
6:30 PM Dinner Begins
7:00 PM Lecture Begins

Cost: \$20 AIAA/SFTE & Guests
\$25 Non-Members
\$5 Students
\$5 Educator Associates

Please note a reservation is a commitment to pay.

Reservation Option Via the Section Website

RSVP online at www.pnwaiaa.org or send an e-mail to reservations@pnwaiaa.org. A confirmation e-mail will follow.

From the Left Seat



In November I attended the Aerospace Futures Alliance "First Governor's Aerospace Summit." The event was opened by Washington governor Christine Gregoire, who was followed by Boeing Commercial Airplane CEO Scott Carson. The pair presented a strong case for supporting aerospace in Washington State and the numbers are staggering. Here are

just some of the statistics quoted at the Summit:

Washington State employs 81,000 (110,000 according to Carson) in the aerospace industry with another 127,000 indirectly dependent on aerospace. Of the 214,000 jobs added over the last two and a half years, four out of five are in middle to upper wage jobs. The average salary in aerospace here is \$80,000 a year. There are 650 aerospace companies in Washington, doing \$60 billion in business, of which \$22 billion is exported, approximately one third of the total state export.

Troy Thrash, Executive Director of the National Aerospace Development Center, added some numbers: NASA has more employees over 70 than under 30; one half of all aerospace managers are eligible to retire within five years; and a very interesting statistic from MIT – 80% of aerospace professionals would not recommend an aerospace career to their kids.

Governor Gregoire stressed three points she is working towards that will help the aerospace industry in the PNW. They are:

1. Washington must "create a world-class education system."
2. Find a way to re-emphasize and redo our infrastructure (e.g. roads, communications, etc.).
3. Send a message that "Washington is open for business."

In support of the last item, she added that Forbes magazine has moved Washington from 12th to 5th as the "friendliest" state to do business in.

Boeing's Carson also listed his issues that the region has to deal with. They are:

1. Working on the tax burden.
2. Education and workforce training and retention.
3. Healthcare.
4. Regional transportation.

Finally, there was the fuzzy stuff: Gregoire started out by stating "All 6.5 million Washingtonians are very proud of our aerospace industry." What was important was her commitment to insure our "children and grandchildren" continue to be proud of our aerospace industry. Carson added that "we thrive on impossible tasks in this industry."

I found myself seated at the table of the new CEO of Seattle's "Lighthouse for the Blind," a company that uses people with disabilities to manufacture aerospace parts. Actually, I knew Kirk Adams, who is the father of one of my son's good high school buddies and a member of their high school band. Kirk and I discussed a special tour of

Lighthouse for AIAA members. Read about the tour elsewhere in the newsletter.

The highlight of the Summit for me was learning that Scott Carson is getting a "Cub" from Cub Crafter in Yakima. I hadn't known that Scott was a fellow tail-dragger pilot!

Scott Eberhardt

2007-2008 PNW AIAA Chair

PNW AIAA Calendar

March 12, Wednesday, 6:30 pm

March PNW AIAA Dinner Meeting
You Want to be an Aerospace Engineer by John Korn
Azteca
Bellevue, WA

March 20, Thursday, 8:30 pm

AMTAS Spring 2008 Meeting
University of Washington, HUB Room 310
Seattle, WA
<http://depts.washington.edu/amtas>

March 24-28, Monday to Friday

AMTAS Short Course: Advanced Aircraft Composites
University of Washington
Seattle, WA
<http://depts.washington.edu/amtas/courses/CompOverview/index.html>

April 9, Wednesday, 6:30 pm

April PNW AIAA Dinner Meeting
The Top Cub Light Aircraft by David Snell
Azteca
Bellevue, WA

April 15, 2008, Tuesday

Lighthouse for the Blind Tour (See Article)
Seattle, WA

April 15-16, 2008, Tuesday to Wednesday

Congressional Visits Day
Washington D.C.

May 14, Wednesday, 6:30 pm

May PNW AIAA Dinner Meeting
Insitu Unmanned Aerial Vehicles by Steve Siwa
Seattle, WA

Seattle Lighthouse Tour

The Lighthouse for the Blind, Inc. a company that makes aerospace parts utilizing employees with disabilities, has offered a special tour to the PNW Section. The tour is scheduled for Tuesday, April 15 (Tax Day) from 1:00 pm to

4:00 pm. Please consider working this tour into your schedule.

The Seattle Lighthouse is a private, not-for-profit agency providing employment, support, and training opportunities for people who are blind, Deaf-Blind, and blind with other disabilities. The Lighthouse has provided employment and support to blind people in our community since 1918.

To learn more about Seattle Lighthouse, visit www.seattlelighthouse.org. The Seattle P-I article is at http://seattlepi.nwsource.com/business/342857_lighthouse10.html.



AMTAS Spring 2008 Meeting

Please mark your calendar for the Spring 2008 meeting of the Center of Excellence on Advanced Materials for Transport Aircraft Structures (AMTAS), part of the FAA Joint Advanced Materials & Structures Center of Excellence.

More details regarding the agenda and registration will be forthcoming. There is no fee for this meeting. You can view previous AMTAS meetings at <http://depts.washington.edu/amtas/events/index.html>.

This AMTAS semi-annual meeting will include:

- A Center activities report
- AMTAS-Related Initiatives at the UW
- Non-AMTAS Funded Composites Research
- New Directions in Composites

Questions? Please contact Ellen Barker at 206-543-0299 or nelle@u.washington.edu.

2008 Congressional Visits Day



Each year AIAA sponsors Congressional Visits Day (CVD). Congressional Visits Day brings scientists, engineers, researchers, educators, and technology executives to Washington D.C. to raise the

visibility of and support for aerospace. CVD consists of a series of briefings and meetings with your Congressional representatives. Through face-to-face meetings with members of Congress, congressional staff, key Administration officials, and other decision-makers, Congressional Visits Day raises their awareness of the long-term value that aerospace science, engineering, and technology bring to America.

This year, CVD is scheduled for April 15-16 and will be the third annual "Team Washington" visit. The team is open to any AIAA members, educator associates, or students that would like to attend. Team Washington's goals this year are to increase Team Washington's numbers and to provide our Congressmen with a set of Washington specific issues on aeronautics and space. To learn more about AIAA's Public

Policy or Congressional Visits Day, please visit www.aiaa.org and click on "Public Policy" in the orange link bar. If you would like to become a member of Team Washington, please contact Christian Carpenter at 425-882-5710 or carpenter@pnwaiaa.org.

Washington Aerospace Scholars Summer Residencies Mentors



Washington Aerospace Scholars

(WAS) is seeking engineering professionals interested in working with high school juniors during a summer residency hosted by the Museum of Flight. See the attached flyer for more information.

AIAA Custom Briefings

Do you want to keep up with aerospace activities on a daily basis without having to filter through non-aerospace articles or multiple sources? As an AIAA member, you can sign up for this free service at <http://aiaa.custombriefings.com>.

AIAA Daily Launch is e-mailed each weekday morning exclusively to members of AIAA. Helping you stay well-informed of breaking news of interest to AIAA members is AIAA Daily Launch's mission. Must-read areas of coverage include: Aviation and Aeronautics, Space and Astronautics, and Legislation and Policy. AIAA Daily Launch is produced by U.S. News Custom Briefings, an affiliate of U.S. News & World Report.

2008 PSEC UW Mentor Night

Several members of the PNW section participated at the Puget Sound Engineering Council's annual Mentor Night at the University of Washington. The event provides a casual setting in which college students can speak one on one with practicing engineers from a variety of engineering disciplines and careers.



Kim Hicks (center) sharing with another mentor.



Paul Kostek (left) fielding a question.

WASHINGTON AEROSPACE SCHOLARS

a distance learning and summer residency program for high school juniors

SCHOLARS FROM ACROSS THE STATE

We are pleased to announce that we have accepted 225 talented juniors from across Washington into our second Washington Aerospace Scholars (WAS) class. These students are now participating in Phase One of WAS: distance learning with a NASA-designed curriculum covering the history of space exploration, the Space Shuttle, the International Space Station, the Moon, and Mars. These 225 students represent 48 of the 49 legislative districts, as well as 99 school districts and independent / private school organizations. (For a list of the participants' districts and schools, please see the next page.) The Scholars are now competing for a space in one of our four summer residency sessions.

SUMMER RESIDENCIES AT THE MUSEUM OF FLIGHT

Phase Two of WAS is a six-day summer residency experience for 160 students. Selection is competitive and centers around performance in Phase One of WAS. In each residency session,

2008 Summer Residencies

Session 1: June 22-27

Session 2: July 6-11

Session 3: July 13-18

Session 4: July 20-25

40 selected Scholars work cooperatively to plan a human mission to Mars with support from professional engineers/scientists, university students, and certificated educators. Participants are divided into four teams of approximately ten students each: Getting There, Living There, Working There, and Mission Integration. Each session also includes briefings from aerospace professionals, tours of engineering facilities,

and hands-on engineering challenges involving model rocketry, robotics, landing devices, and payload lofting. The daily schedule is quite full, and the students lodge in double rooms at a local hotel under the supervision of certificated teachers. Travel, lodging, and meal expenses are provided to participating students and teachers thanks to the WAS Foundation and our many generous donors.

WANTED: CERTIFICATED TEACHERS

We are in need of certificated teachers interested in spending one week at The Museum of Flight working with the selected Scholars for one of the summer residency sessions. Selected teachers will serve as Counselors to teams of ten Scholars, supporting their work and providing supervision (responsibilities include lodging with the students at a local hotel; single rooms are provided for Counselors). Participating teachers will receive \$500 stipends and are eligible for clock hours. Lodging, meals, and travel expenses are provided by the WAS Foundation. Additional information and applications are available on our website.

*Counselor Application Deadline: Friday, March 14, 2008.

WANTED: VOLUNTEERS

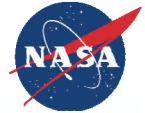
Seeking Engineers, Scientists, and University Students for Mentoring Roles

We are also in need of engineering / science professionals and university students interested in volunteering their time to mentor the next generation of engineers. These volunteers will support the Scholars as they design a human mission to Mars. One Mentor and one Assistant Mentor will work with a team of ten Scholars for one week. The time commitment is generally four hours per day (8am-12pm, Monday-Friday), plus attendance at a closing luncheon banquet on Friday afternoon. Volunteers are encouraged to attend other summer residency activities as their schedules permit. Additional information and applications are available on our website.

*Mentor & Assistant Mentor Application Deadline: Friday, March 28, 2008.

Newsletter #5

January 2008



THE MUSEUM OF *Flight*

SAVE THE DATE

The Second Annual

WAS Challenge Golf Tournament Fundraiser

**Thursday,
October 2, 2008**

**Sahalee Country
Club**

This Sahalee scramble is sure to present a challenging and memorable day on the course while benefiting a worthy cause. Several hole-in-one prize opportunities and contests will be offered as well as a wine reception, silent and live auctions, and a world class banquet.

Multiple sponsorship levels are available, and we are also seeking donations of auction items and prizes. For more information, please contact Rosie Bailer at 206-764-5866 or rbailer@museumofflight.org. We hope you and your organization can join us!

**\$500 Stipends
&
Clock Hours
Offered**



Washington Aerospace Scholars
The Museum of Flight - 9404 East Marginal Way South - Seattle, WA 98108-4097
206-764-5866 waaerospacescholars@museumofflight.org
www.museumofflight.org/washingtonaerospacescholars



WASHINGTON AEROSPACE SCHOLARS

a distance learning and summer residency program for high school juniors

Newsletter #5

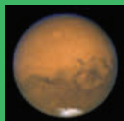
January 2008

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PHASE ONE PARTICIPANTS 2007-08

The students currently participating in the first phase of Washington Aerospace Scholars attend the following school districts and private/independent schools. The figures in parentheses denote the number of participants; when no quantity is indicated, there is a single participant from that school district or private/independent school.

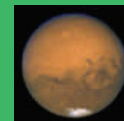
Anacortes School District (2)	Kalama School District	Riverview School District (2)
Auburn School District (7)	Kennewick School District (6)	Royal School District (2)
Battle Ground School District (2)	Kent School District (3)	Saint George's School
Bellevue School District (7)	King's West High School	Seattle Christian School
Bellingham School District (11)	Kiona-Benton School District	Seattle Prep (4)
Bethel School District (2)	Lake Washington School District (12)	Seattle Public Schools (8)
Bishop Blanchet High School	Lakeside School (2)	Sedro-Wooley School District (5)
Blaine School District	Liberty Christian School	Sequim School District
Burlington-Edison School District	Lind School District	Shoreline School District (2)
Camas School District	Longview School District (2)	Snohomish School District (2)
Cashmere School District (2)	Lynden School District	Snoqualmie School District
Central Kitsap School District	Manson School District	South Kitsap School District
Clarkston School District (2)	Mercer Island School District (2)	Spokane Public Schools (3)
Clover Park School District	Mount Baker School District (4)	Stanwood-Camano School District (2)
Columbia School District, Stevens County	Mount Vernon School District (3)	Sumner School District (2)
Colville School District (2)	Mukilteo School District (7)	Sunnyside School District
Davenport School District	Naches Valley School District (3)	Tacoma School District (5)
Dayton School District	Newport School District	Tahoma School District
East Valley School District, Spokane County	North Kitsap School District (2)	Touchet School District
East Valley School District, Yakima County	North Thurston School District	Tumwater School District
Eastmont School District	Northshore School District (2)	University Prep
Edmonds School District	Oak Harbor School District (2)	Vancouver School District
Ellensburg School District	Ocean Beach School District	Vashon Island School District (2)
Everett Public Schools (2)	Olympia School District	Wahkiakum School District
Evergreen School District, Clark County	Omak School District	Walla Walla School District
Federal Way Public Schools (2)	The Overlake School	Wapato School District (2)
Ferndale School District	Pasco School District	Warden School District (3)
Forest Ridge (2)	Port Angeles School District (2)	Washougal School District
Highline School District (20)	Pullman Christian School	Wenatchee School District
Hillside Student Community	Puyallup School District (5)	West Valley School District, Yakima County
Holy Names Academy	Quincy School District	Winlock School District
Home Schooling Program	Rainier School District	Yakima School District
Issaquah School District (4)	Renton School District (3)	Zillah School District



For more information, please contact Rosie Bailer, WAS Coordinator

206-764-5866

rbailer@museumofflight.org



**BROUGHT TO YOU BY KEY PENINSULA MIDDLE SCHOOL
A NASA EXPLORER SCHOOL**



Guest Speaker

Dr. Michelle Thaller

Astronomer at the Spitzer Science Center

New Worlds

Discoveries of the Spitzer Space Telescope

**Thursday, March 20th from 7:00-8:30 PM
at the Gig Harbor High School Auditorium**

5101 Rosedale St NW, Gig Harbor, WA 98335



Dr. Thaller obtained a doctorate in observational astrophysics through Georgia State University, specializing in the life and death of massive stars (the kinds that form black holes and other dramatic things like that). She actually discovered an entirely new kind of star (called a stripped-core subdwarf), formed when a dying binary star loses its atmosphere to the gravity of its companion star. She has also been an ob-

server with the Hubble Space Telescope, the ROSAT X-ray satellite, and the International Ultraviolet Explorer Satellite.

Michelle now spends almost all her time promoting science education. As manager of the Education and Outreach office of the Spitzer Space Telescope, she spends much time on the road, telling the public about this exciting mission.

Questions? Contact KPMS

Phone: 253-530-4200

bordersk@psd401.net



AMTAS Spring 2008 Meeting

March 20, 2008

University of Washington, HUB 310

AGENDA *

8:00 AM	Registration & Coffee	
8:30–9:00 AM	Welcome and Brief Remarks AMTAS/JAMS: Status and Future Plans	Mark Tuttle, AMTAS Director
9:00–9:40 AM	AMTAS-Related Initiatives at the UW	
9:00–9:20	• Overview of i-AMT	Alex Jen, UW MSE
9:20–9:40	• Aviation and the Environment	Patrick Stickler, The Boeing Co.
9:40–10:20 AM	Related Composites Research	
9:40–10:00	• Lightning Strike	Paolo Feraboli, UW A&A
10:00–10:20	• Feasible Morphing Aerostructures	Tad Calkins, The Boeing Co.
10:20–10:40 AM	Coffee Break	
10:40–12:10 AM	New Directions in Composites	
10:40–11:00	• Manufacturing of Braided Composite Structures	Jason Scharf, A&P Technology
11:00–11:20	• Fiber Composite Research at PNNL	Jim Holbery, PNNL
11:20–11:40	• Composites in Sporting Goods	Dodd Grande, K2 Sports
11:40–12:10	• Composite Applications in the Energy Sector	Scott Finn, GE Research Center
12:10–1:00 PM	Lunch	
1:00–1:10 PM	Workshop Briefing/Expectations	Mark Tuttle
1:10–2:10 PM	Breakout Sessions	Moderators
Attendees will be divided into separate groups to discuss current AMTAS projects and/or new topics that AMTAS researchers might pursue.		
Existing/near-term AMTAS projects:		
• Adhesive Bonding		
• Chopped Fiber Composites		
• Composites Education and Training		
Potential Collaborations:		
• Morphing Structures/Multifunctional Materials		
• New Research Directions		
2:10–2:30 PM	Break	
2:30–3:20 PM	Report-outs: (10 min. ea.)	Moderators
3:20 PM	Next steps/Wrap-up	Mark Tuttle
3:30 PM	Adjourn	

* subject to change

A PUBLICATION OF THE PACIFIC NORTHWEST SECTION OF AIAA

Address Correction

Mail to:

AIAA

1801 Alexander Bell Dr.

Reston, VA 22091

On-line at

<http://www.aiaa.org>

(Join/Renew/Update). Membership ID needed

Section Officers and Directors

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Appointed				
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Honors & Awards	Scott Eberhardt	-	-	eberhardt@pnwaiaa.org
Retired Members	Tom Holgate	2704 SW 314th, Federal Way, WA 98023-7842	253-838-0333	holgate@pnwaiaa.org
Newsletter	Emmanuel Domingo	03-JP	206-227-7819	domingo@pnwaiaa.org
Nominations	-	-	-	-
Museum of Flight Liaison	Bonnie Dunbar	-	-	dunbar@pnwaiaa.org
PSEC Liaison	Charles Beard	4T-42	425-446-0884	beard@pnwaiaa.org
Pre-College Outreach	Scott Eberhardt	-	-	eberhardt@pnwaiaa.org
Public Policy	Christian Carpenter	P.O. Box 97009, Redmond, WA 98073	-	carpenter@pnwaiaa.org
Young Professionals	Emmanuel Domingo	03-JP	206-227-7819	domingo@pnwaiaa.org

* Boeing address is P.O. Box 3707, Mail Code xx-xx, Seattle, WA 98124-2207



AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS
PACIFIC NORTHWEST SECTION