

Gateway News

American Institute of Aeronautics and Astronautics, St. Louis Section

<http://www.aiaa.org>

<http://www.me.wustl.edu/~aiaa>

September 2003

Join the St. Louis Section of AIAA as we kick off the 2003 – 2004 year commemorating the first 100 years of flight. The museum has on display one of the largest collections of flying antique, classic and sport aircraft in the country. Some of the aircraft featured in the museum are an original "Cub", the "Timm Collegiate" flown by Charles Lindbergh, and the first "Curtiss Air Sedan", which was made right here in St. Louis. It is not uncommon to see a vintage car or motorcycle in the museum as well.

Tour & Social at the Historic Aircraft & Restoration Museum

Creve Coeur Airport
3127 Creve Coeur Mill Road
Maryland Heights, MO

Wednesday 17 September

4:00 p.m. – 8:00 p.m.

Museum Tour Start Times

4:00 p.m. & 6:00 p.m.

Menu	Ticket Sellers (Please Purchase Tickets Prior to 12 Sept)				
	Sales Person	Telephone	Bldg.	Level	Post
<i>Hot Dog or Chicken Strips Side Dish Chips Soda/Water Cash Bar</i>	Doug Olson	469-4180	101A	3	Rm. 360
	Mark Johnson	234-2692	65	3/4	Rm. 343/439
	Larry Brase	777-5586	65	4	Rm. 416
	Virginia Jones	233-3903	32	2	225
	John Mohr	567-3398	Call for Tickets (Retirees and Public)		
	Claudia Pohrer	234-9929	1	2	280-70
	Dick Pinckert (Jean Morton)	234-0419	102	3	K375
	Walt Reschke	777-4038	66	2S	Rm. 250
	Ted Hellwig	233-3244	65A	3	350
	Rudy Yurkovich	233-2563	101A	3	330
	Charley Saff (Tammy Munn)	232-1540	102	2W	
	John Lapinski	234-0136	270E	2	
	Gary White	636/925-4247	506	1	
	Philip Newell	232-3528	304	1E	C7
	Julie Weaver	234-2736	270E	4	B15
	Trent Duff	233-2227	107	2	B6
	Linda Hilboldt	233-3212	107	4	
Mike Swartwout	935-6077				
Kay Bopp	977-8240				
Fred Nelson	573/341-4613				
Washington University Parks College of St. Louis University University of Missouri-Rolla					
Ticket Prices					
\$12.50 for members					
\$15.00 for non-members					
\$10.00 for students & children					
(Purchase After Sept. 12, Add \$5.00)					

MAY 2003 AWARDS AND RECOGNITION

The annual AIAA Awards banquet was held at the Airport Marriott, May 21st. The member gathering acknowledged the accomplishments of the AIAA awardees and invited Science Fair honorees.



Civic Service Award Dr. Ramesh Agawal, Washington University



Technical Contribution Award Bird of Prey Team Mike Heinz Accepting



Technical Contribution Award Michael Heller, F/A-18 Flight Control



Robert May, Executive Director of AFRL, was the featured speaker. He spoke to the new revolutionary technologies coming into being at AFRL. Technologies like; UCAV, directed energy, laser radar, airborne laser, etc.



Section Service Award Dr. Ray Nitzsche, St. Louis University



St. Louis Section Special Achievement Award Darryl Davis



St. Louis Science Fair Award Winners attended the dinner meeting. Craig Szczesiul, left, with his dad and Jonathon Jones, right, with his mom

UMR STUDENTS WIN FIRST PLACE AT STUDENT PAPER CONFERENCE

ROLLA, MO. Dave Drake of Paragould, AK, a graduate student, and Trent Taylor of Mt. Vernon, MO, a senior at the University of Missouri-Rolla, won first place at the AIAA Region V Student Paper Conference held at the University of Colorado in Boulder.

Drake presented "Threat-D Control for Ascent Phase of Reusable Launch Vehicles," and Taylor presented "Drag Reduction and Control of Hypersonic Vehicles Using Focused Energy Deposition and Electro-Static Forces, and Fuel Mixing and Combustion Efficiency in Scramjet Engines." Drake and Taylor now move on to represent Region V at the National Competition at Reno, NV, in January of 2004. Additional award winning student papers were:

- Pierre Vignal, Chatenay Malabry, France, second place in the graduate category with his paper titled "Space Communications between Satellites Based on Commercial IEEE 802.11 Technologies."
- Nathan Mundis, Broken Arrow, OK, third place in the undergraduate category with his paper titled, "The Effect of Inlet Compression Angle on Scramjet Propulsion."

Other UMR student papers at the conference were:

- Afsheen Khamooshi, Cape Girardeau, MO, presented "Design and Development of a Thermal Wind Tunnel Suitable for Horizontal and Vertical Aerodynamic Testing."
- Jeff Rottler, Saint Genevieve, MO, presented "Aeroelastic Response of an Airfoil to Changes in Dampening and Spring Constant in Steady Flow."
- Chris Keithley, Louisiana, MO, presented "A Methodology to Utilize Low Cost Pilot-in-the-Loop Simulation in Aircraft Accident Investigation."
- Isaiah Kellogg, Strafford, MO, presented "Micro-pulsed Plasma Thrusters."

The students' research was funded in part by the UMR Opportunities for Undergraduate Research Experience Program (OURE) and the NASA-Missouri Space Grant Consortium.

H. Fred Nelson, AIAA Student Branch, Faculty Advisor

THE WRIGHT LESSON

Imagine setting out to do something that has never been done before by humans: sustained, controlled, heavier than air-flight. Learned people had declared that it could not be done. Others had tried for years, using a variety of approaches, and failed. You, however, are a newcomer to the problem. After much thought, you identify a critical element that sets you apart from the other efforts. Your team is small, talented, driven by the challenge and not the limelight. You learn new physics when the old proves inadequate, even wrong. You employ an almost perfect blend of theory and the experiment. You learn by doing. You find out what you don't know you don't know, then address your ignorance. You "make, fly, and break." You do this willingly, quickly, and cheaply. You are learning something all the time. You do nothing more than what's needed, but nothing less, either.

Sound familiar?

This is how Dr. Paul MacCready and team enabled Brian Allen to fly the Gossamer Condor to capture the Kremmer Prize on August 23, 1977, for the first sustained, the HUMAN-powered, controlled, heavier-than-air flight.

While the Wrights' achievement must be, for me, strictly historical, MacCready's is within my personal experience. I read about it in magazines when it happened, saw the news clips on television. I listened to Dr. MacCready tell his story when he visited my graduate school. To use our contemporary jargon, the "process" that had created the Gossamer Condor appears very much like the one that created the Wright Flyer 75 years before.

In this 100th Anniversary of powered flight, I appreciate even more the tremendous achievement of the Wrights thanks to the work of MacCready.

St. Louis Section 2003 - 2004 Council Roster

Office	Incumbent	Address	Telephone	Fax	E-Mail
Chairman	Gary White	MC S500-2020	705-2312		gary.p.white@boeing.com
Vice Chairman	Karen Copper	MC S001-6130**	234-5742	233-8916	karen.k.copper@boeing.com
Secretary	Michael Swarhwout	Washington Univ.			mas@me.wustl.edu
Treasurer	Bob Dowgwillo	MC S106-7126**	234-1013		robert.m.dowgwilo@boeing.com
Advisors	Dianne Chong	MC S001-2700**	232-9719		dianne.chong@boeing.com
	David R. Riley	MC S111-1240**	233-6458	233-7338	david.r.riley@boeing.com
	Dave Peters	Washington Univ.			dap@me.wustl.edu
	Larry Brase	MC S064-1092**	234-4907		lawrence.o.braser-jr@boeing.com
	John Mohr				
Region V Rep	Michael S. McCoy	MC S064-2233**	233-0524	234-5125	michael.s.mccoy@boeing.com

Office	Incumbent	Address	Telephone	Fax	E-Mail
Arrangements	Chris Alexander				
Attendance	Douglas Olson		469-4180		olsondr@us.ibm.com
Education	Michael Swarhwout	Washington Univ.			mas@me.wustl.edu
Education Historian	Frederick W. Roos	MC S111-1240**	233-2530		frederick.w.roos@boeing.com
Honors & Awards	Walt Reschke	MC S064-3449**	777-4038		walter.j.reschke-jr@boeing.com
Membership	Peter Y. Cheng	MC S064-3210	777-3157		Peter.y.cheng@boeing.com
Newsletter	David E. Morgan	MC S106-7250**	234-1919		david.e.morgan@boeing.com
Pilot Education	Jeff Larrick	MC S102-2272**	232-3455		jeffrey.c.larrick@boeing.com
Programs	Karen Copper	MC S001-6130**	234-5742	233-8916	karen.k.copper@boeing.com
Public Policy	Mark Holly	MC S270-2201**	232-1405		mark.k.holly@boeing.com
Publicity-Internal	Carrie E. Kniker	MC S270-1110**	232-4631		carrie.e.kniker@boeing.com
Services Projects	Tom Mroczkowski	MC S064-2263	232-7041		thomas.j.mroczkowski@boeing.com
Webmaster	John Donigan	MC S064-1411**	234-4103		idonigan@swbell.net
Young Members	David J. Debrestian	MC S111-1240**	232-9538		david.j.debrestian@boeing.com
Young Professional Awards	Dwayne D. Car	MC S064-2263**	232-7103		dwayne.d.car@boeing.com
Strategic Planning	Larry Brase	MC S064-1092**	234-4907		lawrence.o.braser-jr@boeing.com

** Boeing Address: The Boeing Company, P.O. Box 516, St. Louis, MO 63166



2003 – 2004 St. Louis Section
Officers and Council Members

September 2003

Chairperson

Gary White

Vice Chairperson

Karen Copper

Secretary

Michael Swartwout

Treasurer

Bob Dowgwillo

Advisors

Non-Profit
Organization
Standard A
U. S. POSTAGE
PAID
Florissant, MO
Permit No. 121



New address?? Forward newsletter address corrections to;
David E. Morgan, Boeing m/c S106-7250, 314-234-1919,
david.e.morgan@boeing.com

AIAA FUTURE EVENTS



Tour Historic Aircraft
Restoration Museum

Wednesday, 17 September 2003

4:00 p.m. - 8:00 p.m.

Creve Coeur Airport