

# Central Oklahoma Section Newsletter

Volume 8, Number 5

January



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## January ASME COS Meeting Announcement

**Speaker: Paul Metz**

**Topic: The Strange Paradox of Coolidge, Augustine and Moore: Acquiring New Technology**

**Place: Oklahoma Engineering Center, 201 NE 27th St. OKC, OK**

**Time: 6:00 PM: Registration & Social**

6:30 PM: Meal – Catered

7:15 PM: Meeting & Announcements

7:30 PM: Presentation

9:00 PM: Adjourn

**Cost: \$10 for Professional members and guests, \$5 for student members**

**PLEASE PLACE RESERVATIONS BY 12:00PM TUESDAY January 23rd to Dave Faulkner: [dfaulkner@rocketplane.com](mailto:dfaulkner@rocketplane.com) or (405) 488-1200 x113**

### Presentation Abstract:

Using examples from aviation history I show the impact on weapons effectiveness when the increases in technology either are faster or slower than the time to develop the new weapons. The current methods of weapon acquisition pose serious problems to fielding “modern” equipment to our soldiers, sailors and airmen and suggest what engineers can do to reverse the trends. This is a fun presentation that appeals to both engineers and their spouses.

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## **Additional January Meeting Information**

In October 2001, Paul Metz joined Lockheed Martin's F-35 Joint Strike Fighter program and was named the Vice President for Integrated Test and Evaluation (Flight Test). He served in this capacity until his retirement in February 2006.

He served as Lockheed Martin's Chief Test Pilot for the F-22 Advanced Tactical Fighter from 1992-2001 and made the first flight on the F-22A Raptor on September 7, 1997. Prior to joining Lockheed Martin, he served 12 years in the U.S. Air Force and was an Engineering Test Pilot and Chief Test Pilot for Northrop Aircraft for 12 years.

Metz joined Northrop Aircraft in 1980 as an Engineering Test Pilot. He conducted flight tests on the F-5E/F, the F-20 and the Antonov Colt, a Russian bi-plane. In October 1985, he was appointed Chief Test Pilot for Northrop Aircraft. From 1985 through 1992, he was responsible for flight tests of the F-20 Tigershark, the RF-5E Tiger Eye Reconnaissance Aircraft, the F-86F Saber and other programs. He made the first flight of the YF-23A Advanced Tactical Fighter in August 1990. He spent 2 years as an engineering test pilot on the B-2 program prior to leaving Northrop for Lockheed Martin.

Metz entered the USAF in 1968 and flew operational missions in the F-105G Wild Weasel in the U.S. and Southeast Asia. His combat day and night missions against surface-to-air missiles and anti-aircraft gun sites in support of strike missions in North Viet Nam earned him two Distinguished Flying Crosses and six Air Medals. In 1976 he was a distinguished graduate from the USAF Test Pilot School at Edwards AFB and he remained at Edwards AFB conducting avionics, flying qualities, engine and flutter tests on the F-5E/F. In 1978 he became an instructor pilot at the U.S. Navy Test Pilot School at Patuxent River, Maryland.

Metz was born in Springfield, Ohio, January 1946. He received a bachelor's degree in aeronautical and astronautical engineering from the Ohio State University, Summa Cum Laude, in 1968. His graduate studies have been in Aeronautical engineering at Ohio State and California State University, Fresno and Aviation Safety at the Naval Post Graduate School, Monterey, California.

He is a Fellow and past-President of the Society of Experimental Test Pilots. In 1992, he received the Kincheloe Award, the test pilot profession's highest award, for his flight testing of the YF-23 Advanced Tactical Fighter prototype. In 2002 he was enshrined in the Aerospace Walk of Honor at Lancaster, California, the gateway to the USAF Flight Test Center. He has written numerous articles on the flight test of modern fighter aircraft. He has over 7,000 hours and more than 37 years of experience flying 70 aircraft types including the F-86, F-105, F-4, F-5, F-15, F-20, YF-23 and F-22.

Paul is married and has three sons.

## **2007 AIAA/ASME Symposium**

This year's symposium will be hosted by the University of Tulsa in Tulsa Oklahoma. It will be in the Great Hall in the Allen Chapman Activity Center on campus Saturday, March 31st.

More information pertaining to the event will follow as the information is available. In the meantime, begin working on those abstracts to have them ready for submittal when the time comes!

# Chair's Corner

Dear ASME-Central Oklahoma Section Members:

Happy New Year! The Central Oklahoma Section has some great plans in store for you in the coming months. But first, I would like to reflect back on the activities in November and December of 2006 to bring you up to speed.

November 14th was a great day with an industry luncheon held at Halliburton at the Duncan campus. It proved to be a great method of reaching section members located in the southern portion of our state. A big "Thank You" to the folks at Halliburton for hosting this event!

The nanotechnology program scheduled for November 30th, as many of you are aware, was cancelled due to inclement weather. Due to the amount of depressed would-be attendees, this program will be rescheduled in the near future. With all of the activities occurring in the spring, the exact time frame has not been worked out yet.

On December 7th, AIAA extended an invitation to the ASME COS section to attend their event held at Rose State University. This program addressed the problems associated with estimating repair cycle times in the aerospace industry. A lot can be said, or money saved, by accurately predicting components that drive repair cycle time and what additional portions should be repaired to prevent an unscheduled repair. We also had a chance to view some powerful instructional software that will make many technical industries envious.

The January program will be held back at the Engineering Center for the traditional AIAA/ASME joint program. It's not every day you get to meet a test pilot! I guarantee you will be on the edge of your seat for this program. The first two pages of this newsletter contain much more detail concerning our **January 25<sup>th</sup>** program. **Please plan to attend and bring your spouse, co-worker or friend!**

Nathan A. Weber -- Chair

## Call for Volunteers

E-Week~ E-week is right around the corner and the E-week committee is looking for a few good people to help on February 22nd.

Fundraising Chair~ Do you like to do fund raising? If so we are still looking for a fundraiser chair to assist not only with the golf fundraising but with other creative ways to raise funds both for student scholarships and for additional funds for the Central Oklahoma Section.

Public Relations~ If you like talking to the media, we have an open position for the public relations spot. This position is mainly responsible for getting the word out for events.

2007-2008 Positions~ We are in need of a new vice-chair and also other board members to meet once a month and help plan the wonderful activities for the 2007-2008 calendar year.

Please contact Nathan Weber if you are interested in serving with ASME in one of these positions.

## STUDENT SECTION NEWS

Calling all student sections —

The professional section would like to extend a hand to all student sections to post important meetings, events, and other items that the student sections are doing.

We would like to have a page dedicated to the student sections to help spread the word on what they are doing. This will help also in the Ingersol Rand competition that student sections should be participating in.

We also ask that faculty advisors help pass along to the professional section any and all correspondence that would help bridge the expanding gap between the students and the professionals.

## Scholarship Opportunities

### 1. ASME National:

Apply **online only** beginning 2/1/07 and ending 3/15/07 for ASME scholarships.  
<http://www.asme.org/Education/College/FinancialAid/Scholarships.cfm>

### 2. ASME Auxiliary:

[http://www.asme.org/Education/College/FinancialAid/Auxiliary\\_Scholarships.cfm](http://www.asme.org/Education/College/FinancialAid/Auxiliary_Scholarships.cfm)

### 3. ASME Central Oklahoma Section:

The application is being finalized at this stage. The February newsletter will have further details for the application deadline. Four \$500 scholarships will be awarded for the 2007 fall semester.

## Old Guard Early Career Engineering Award Deadline

Nominations are now being accepted for the Old Guard Early Career Engineering Award, which recognizes outstanding early career engineers who actively involve themselves in their profession, their communities, and the work of the Society.

The award is open to current ASME members who have maintained continuous membership since first becoming ASME student members. Applicants should have received their baccalaureate degrees in mechanical engineering between four and six years prior to the application deadline, which is March 1, 2007.

The winner will receive \$5,000 cash, plus an ASME prepaid life membership. Two runners-up will receive ASME prepaid life memberships.

For more information, visit <http://files.asme.org/asmeorg/Communities/EarlyCareer/8026.pdf>, or contact Cheryl Hasan, (212) 591-8239, e-mail [hasanc@asme.org](mailto:hasanc@asme.org)



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## Joint Engineering Banquet Information:

**When:** Thursday February 22nd

6:30pm Social

7:00pm Dinner

**Where:** Oklahoma Christian University

2501E Memorial Rd

Edmond, Ok 73013

**Cost:** \$15.00 please contact SheriBoekman, OSPE office Sheri@OSPE.org or (405) 528-1435

### Abstract:

With over 35 years of aviation experience, Bill Khourie joined ASIDA in 2002 and became Executive Director in 2004. He has played a leadership role for aerospace in Oklahoma, having served on the Governor's Aerospace and Education Taskforce, Oklahoma Aeronautics and Space Commission, National Transonic Wind Tunnel Taskforce, and the Governor's Taskforce on New Airline Service for Oklahoma. He was a program manager and crew member for Delta Air Lines Historic DC-3 Ship 41 Restoration Project. Bill's flying career includes corporate and airline operations.

Bill Currently serves as the National Chairman of the Aerospace States Association's Aeronautics Committee and is a member of the Board of Trustees for the Delta Air Lines Museum. He received a B.S. degree from the University of Oklahoma and a M.A. degree from Murray State University in Kentucky in 1975.

## Micro and Nano Forum will return to 2007 Congress

With nearly 70 poster presentations and some 200 attendees, the first-ever ASME Micro and Nano Forum at the 2006 ASME International Mechanical Engineering Congress and Exposition in Chicago was a big success — thus ensuring that the program will continue at this year's Congress in November.

The forum, sponsored by ASME's Nanotechnology Institute, brought together for the first time micro- and nanotechnology researchers from the Society's Institutes, and the Knowledge and Communities sectors. The corporate sponsor for the event was Pacific Nanotechnology Inc., whose financial support funded the two best poster awards.

Sang Kim, lead organizer of the event, called the forum "a huge success with very high turnout," especially considering that the forum was organized in only two months.

Kim, a professor at the Massachusetts Institute of Technology, said he realized that, typically, more than a quarter of the technical sessions at Congress have some connection to micro- and nanotechnologies. A single forum, he realized, would provide ASME members a good opportunity for technical dialogue and to meet socially.

At the event, cash prizes were awarded to two of the 68 poster presentation teams. A \$200 gold prize went to the team of M.L. Chan, G.M. Jaramillo, and D.A. Horsley of the University of California-Davis, Berkeley, Sensor and Actuator Center, for their poster, "Novel Magnetic Micro-Tweezers Leveraging on Magnetic Hard-Disk Drive Technology."

The \$100 silver award was given to C.H. Ke, O. Loh, and H. D. Espinosa of Northwestern University for their presentation, "Bistable Nanoswitch."

The session was open to all Congress participants. To find out more about this and other ASME Nanotechnology Institute programs, visit <http://nano.asme.org>.

## Future ASME-Central Oklahoma Section and Other Events

DATE	LOCATION	DESCRIPTION
January 25th	Engineering Center	Joint meeting with AIAA
February 20th	Omniplex	E-Week Fair
February 22nd	Oklahoma Christian University	E-Week Banquet
March 22nd	Engineering Center	Ethics in Engineering
March 31st	University of Tulsa	Symposium
April 27th	Engineering Center	Honors and Awards Banquet
May 24th	Field Trip	TBD

FOR UPDATES ON THESE AND OTHER EVENTS, VISIT OUR SECTION WEB SITE AT

<http://sections.asme.org/CentralOK>