



The American Society of Mechanical Engineers

Central Oklahoma Section Newsletter

Volume 5, Number 7, March 10, 2004

The Section is located at: Oklahoma Engineering Center, 201 Northeast 27th Street, Oklahoma City, OK 73105

The Central Oklahoma Section Newsletter is nominally published nine times per year to convey monthly meeting dates, meeting topics, section activities, and/or other ASME information to its membership.

***** **March Meeting Announcement** *****

Speaker: Dr. Henry Neeman, Director, University of Oklahoma Supercomputing Center for Education and Research

“SUPERCOMPUTING IN PLAIN ENGLISH”

Thursday, March 25

Oklahoma Engineering Center, 201 NE 27th St., OKC

The Oklahoma Supercomputing Center for Education and Research (OSKER) center was proposed in August 2000 by an OU high performance computing interest group. OSKER was formally launched in August 2001 and OU's first supercomputing education workshop was presented. Supercomputers were delivered in April/May 2002, a first annual OU Supercomputing Symposium was held in September 2002, and the first OSKER-related paper was published in October 2002.

“Supercomputing in Plain English” serves as an introduction to supercomputing. OU supercomputing coursework includes Scientific Computing, Nanotechnology, Advanced Numerical Methods, and Industrial/Environmental Transport Processes. OU groups using OSKER include the Data Mining group, the Computational Biology group, and many Engineering and Physics groups.

Current OSKER projects include:

- Integration of High Performance Computing in Nanotechnology
- Turbulent Transport in Wall Turbulence,”
- A Grid-Based Problem Solving Environment for Multiscale Flow Through Porous Media in Hydrocarbon Reservoir Simulation
- A Parallel, Baroclinic 3D Shallow Water Model
- Advanced Weather Data Visualization
- A Real Time Mining of Integrated Weather Data

OSKER Hardware include: IBM Regatta p690 Symmetric Multiprocessor, Aspen Systems Pentium4 Linux Cluster, IBM FAS500 Disk Server, Tape Library, 32 Power4 CPUs, 32 GB RAM, and 218 GB internal disk storage. Peak computation speed exceeds 1 TFLOP/second (TFLOP = trillion floating point operations) and peak memory bandwidth exceeds 800 GBytes/second. Software currently in use include IMSL numerical libraries, Fortran Lint & C LintPlus source code analyzer, Vampir/VampirTrace performance analyzer, MATLAB, FLUENT (computational fluids), and NASTRAN (finite elements).

Schedule and Contact Information

Time: 6:00PM: Registration and Social. 6:30PM: Catered Dinner.
7:15PM: Introductions & Section Business. 7:30PM: Presentation by Henry Neeman.

Cost: \$10 each for all Senior Members & Guests, \$5 each for all Student ASME Members.

PLEASE PLACE RESERVATIONS BY 12:00PM (noon) TUESDAY, March 23

Students please make reservations at your respective university's Mechanical Engineering office.

Members make reservations with **DOUG BROWN**; brownd919@asme.org; Ph: (580) 531-5871
(with each reservation, please include the name of each guest and/or student)

2003-2004 CENTRAL OKLAHOMA SECTION EXECUTIVE COMMITTEE

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Additional March Meeting Information

Dr. Henry Neeman, Director of the Oklahoma Supercomputing Center for Education and Research (OSCER), is also a visiting faculty member for OU's Computer Science department and a research scientist for OU's Center for Analysis and Prediction of Storms (CAPS). Research interests include flow through porous media, environmental hydrology, and prediction of atmospheric dispersion.

Dr. Neeman earned both B.S. and M.S. degrees in Computer Science from the State University of New York, Buffalo, NY. His Masters Thesis was entitled "Visualization Techniques for Three-Dimensional Flow Fields." He then pursued a Ph.D. in Computer Science at the University of Illinois, completing same in 1996. His dissertation title, "Autonomous Hierarchical Adaptive Mesh Refinement for Multiscale Simulations," included development of the "Hierarchical Adaptive Mesh Refinement" system (HAMR). HAMR is an autonomous, general-purpose structured adaptive mesh refinement system for multiscale simulations that implements the SAMR strategy.

Henry is married to Dr. Teri Murphy, who is an assistant professor in OU's Mathematics Department. To learn more about OSCER, check <http://www.asme.org/education/disted/examprep.htm>.

24th ASME/AIAA Oklahoma Symposium Wrap-Up

P. W. Whaley, Ph.D., P.E., Student Section Adviser, Oklahoma Christian University

The 24th ASME/AIAA Oklahoma Symposium was held Saturday, 28 February, 2004, at Oklahoma Christian University, Oklahoma City. This annual event, co-sponsored by the ASME Central Oklahoma Section and the AIAA Oklahoma Section, helped stimulate technical interchange between Oklahoma's engineers, engineering professors and engineering students. **Over 90 participants registered to hear 52 technical presentations** covering a range of topics from nanotechnology to aerodynamics to space travel. The luncheon speaker was **Dr. Earl Renaud of TGV Rockets** who spoke on the topic "Walk before You Run, the Suborbital Road to Space."

OKC Junior League Needs Help with Zoo Jungle Gym

by: Deanne Hughes, Tool Committee Co-Chair



The Oklahoma City Zoo **Jungle Gym** project, cosponsored by the Junior League of Oklahoma City, is fast approaching. We are in the final stretch of procuring tools for this 20,000 square foot, community-build playground. Approximately 5000 volunteers, with tools, are needed to build this facility! Entire families are encouraged participate! **Please loan us the use of your tools! We promise to return tools in as-good or better condition!**

Tools will be needed from approximately March 19th through April 7th. Drop off can be at the OKC Zoo Guest Relations office between March 19th and 22nd, or I will be happy to come get them from you at a more convenient time. Tools will be available for pickup between April 7th and 9th at the Zoo. I will mark each tool with a number for inventory purposes.

If you can help with any of these tools, please let me know as soon as possible. The tool loaner form is located at http://www.zoofriends.com/tool_request.doc with needed quantities listed in parenthesis. Free to forward this email to others that might be willing to participate. Thanks so much for your help!

If you would like more information on the project or would like to volunteer to help with its construction, please visit the www.zoofriends.com website and follow the "Jungle Gym" link. Child care is provided for children over 3 (and potty trained) while children over 10 can work with their parents on the site. Lunch and dinner are provided as well to the volunteers. Volunteer sign up (and child care sign up) is available on line. **Deanna Hughes may be contacted** at (405) 721-3806 or (405) 202-9605 or by e-mail: 4dhughes@cox.net.



HALLIBURTON ANNOUNCES 2004 SUMMER JOB PROGRAM

ASME-COS Student Members Note: A Halliburton-Duncan Summer Job Program has been approved for 2004 although the number of available positions has not yet been finalized. Below is some program information.

Applications are available from the HES Employment Office located at 1015 Bois D'Arc, Duncan 73533 from March 10 to April 23rd. Office hours are 8AM to 5PM Monday through Friday. Students unable to come to Duncan to complete an application may contact Curtis Vickery for assistance ((580) 251-3573; vickeryc1@asme.org). All applications and/or resumes **MUST** be received by the Employment Office **NO LATER** than April 23, 2004.

To be eligible, applicants must (a) be at least 18 years of age, (b) be a high school graduate currently attending College/Vo-Tech or planning to attend the 2004 Fall term, (c) have successfully completed pre-employment testing & company drug screen. Dependents of full-time Halliburton employees are given preference, but interested student engineers may apply nonetheless.

Other criteria may also affect applicant eligibility. All Summer Job offers will be made by the HR/Employment Office. Please contact Human Resources associates Cynthia Myers ((580) 251- 4193) or Debbie Buben ((580) 251-4672) for more information.



RAC and C&C TOWNHALL MEETING REVIEW

Brian Dietz, Region X Vice President ; submitted by Doug Brown

The memo below was sent to ASME President Reggie Vashon as feedback following the Regional Administrative Conference (RAC) and Continuity & Change (C&C) meetings held February 7, 2004 in Houston TX. The RAC/C&C meetings sought to: (a) maximize broad regional leadership attendance and participation in the Continuity & Change General Assembly; (b) provide the opportunity for RAC delegates to think about and discuss how their unit (section, subsection, group) operates, interfaces, and functions within ASME's current organizational structure, and identify the most important and/or critical items; (c) conduct a workshop maximizing the opportunity everyone's participation; and (d) utilize the efforts of the RAC delegates workshop input as the basis for our Region X feedback to ASME executive leadership. Here is Brian Dietz's letter:

Region X Feedback to Continuity and Change

The **Region X** Operating Board (ROB) **is in favor of and will be fully supportive of the proposed changes to ASME** outlined in the C&C presentation given on February 7, 2004. The ROB does wish to provide these observations and comments as its feedback to the changes proposed by C&C.

The ROB feels that the organization charts presented in C&C are too broad to fully understand. It was pointed out by President Vachon that the proposed organization is in essence an **overall performance specification** for ASME and **not a detailed specification for organization**. We concur with that view. The devil is, however, in the details.

Region X believes that a **detailed specification** needs to be **generated by volunteers representing all major elements and levels** of ASME including all councils, boards, committees, and also including representatives from technical divisions, regions, and units (sections, subsections, etc.). This should be a **volunteer driven** activity to assure that diversity of ASME activities are adequately served and represented by the resulting organization. The best way to achieve this is to have the detailed specification generated at a **special conference** (perhaps this conference could be in lieu of SAM). This detailed specification needs to be generated **as soon as possible**.

To assure that **no essential functions are lost**, Region X feels that each of the councils, boards, and societal committees should have the opportunity to **review and comment** on the resulting detailed organizational specification. The specification also needs to have a **milestone schedule** for implementation that has windows for this review and comment. The proposed C&C implementation period of 15 months may not be achievable. The review and comment process could be done through **web cast** meetings to minimize potential delays in implementation.

The units of Region X held a workshop prior to the C&C presentation. In the workshop, the units said they strongly believe that the **Region X and the Southern Field Office are both essential to for their units' success**. The units feel that **regional conferences** provide training, interaction with other units, networking with experienced regional volunteers, and motivation that is essential. They also feel that the ROB provides a major **link / liaison to the society's** boards and committees. They also feel that the Region X joint RAC/RSC and joint MTS/RSLs provide them with **greater opportunity to interact with students**. Region X **strongly believes** that the **regional organizations** and activities as well as the **field offices** functions **be retained** and funded in the revised C&C organization even if they have "matrix" as opposed to "line" organizational responsibility.

Region X also believes that the **ROB service** provides an excellent **training ground for future officers** of the society. Serving on the ROB gives motivated volunteers who are interested a **broad exposure** to the ASME organization beyond the local unit. Region X also has a number of **regional awards** that provide recognition for distinguished achievements in education, society service, technical accomplishments, and contributions to society. Such recognition is important.

Although the proposed organization will **cut the layers of bureaucracy**, the Region X ROB is concerned that the proposed C&C organization may **not provide an adequate voice** for the enterprise and interest groups to the society's governing organization. Mechanisms must be put in place to provide information transfer and exchange both up and down the organization. The ROB feels that **links and organizational ties** need to be formalized from the enterprise and interest groups to groups that comprise "centers" and to groups that comprise the strategic management organization. Such links and ties will prevent the formation of organizational silos.

We in Region X **offer our assistance** to ASME in the generation of the detailed organization specification and look forward to its implementation.

Respectfully submitted on behalf of the Region X Operating Board,

J. Brian Dietz, Vice President, ASME Region X (dietzj@asme.org)

Chair's Chatter

Dear ASME-Central Oklahoma Section Members:

National Engineer's Week has come and gone and it's almost spring. **Stay safe and healthy** during YOUR spring cleanup, fix-up, yard work, car maintenance, etc, efforts. **Remember -- don't overdue it !!!**

The 24th Annual AIAA / ASME Symposium – another outstanding event !!! **CONGRATULATIONS** to all of you, both ASME and AIAA, who put this successful event together and conducted it. And **THANKS** to Oklahoma Christian University for hosting the Symposium. And **CONGRATULATIONS** to all the participants presenting papers.

All of our Engineer's Week activities were outstanding. Highlights of these activities are covered in this newsletter. **I hope that each of you made the opportunity to participate is some outreach activity during E-Week, and had FUN doing it !!!**

Put this on your long-range calendar now – 2005 is ASME's 125th Anniversary, and ASME is the lead engineering society for E-Week activities. Lots of activities will be happening throughout the year, and especially during E-Week. You'll be hearing about it from Albert Janco, our Section Coordinator for activities for the year-long celebration.

Progress on ASME's Continuity & Change restructuring initiative. A letter from Brian Dietz, Regional Vice President, to Reggie Vachon, ASME President, **included in this newsletter**, summarizes comments and recommendations on behalf of all of us in Region X. The letter is the result of Section leaders input at our RAC, our Regional Operating Board meeting, and Continuity & Change General Assembly, all in Houston February 7th and 8th.

ELECTION TIME – **PLEASE VOTE** and **SEND IN YOUR BALLOT !!!** And while you're at it, **PLEASE** think about and consider getting involved YOURSELF, maybe helping out with some Section activity. YOU'LL likely **have fun** and want to do a little more !!! Just mark on the ballot that you're interested, or call one of the officers or directors.

Upcoming programs YOU won't want to miss – check the dates, and mark YOUR calendar – **YOU'LL be glad YOU did.**

THANKS for the opportunity to share my thoughts with YOU.

Doug Brown – Chair

NOTICE -- DEADLINE APPROACHING FOR CENTRAL OKLAHOMA SECTION AWARD NOMINATIONS

Below are descriptions of ASME-COS' awards for recognizing outstanding section and student members. Award recipients will be recognized at the April 22nd Central Oklahoma Section Meeting.

Outstanding Engineer Award – To be presented for outstanding professional and technical organization activities and achievements. Also considered will be community and civic activities along with awards received. The nominee must be a member of ASME.

Minority and Women Engineer-of-the-Year Award – To be presented for outstanding professional and technical activities by a minority or woman engineer. In addition, community and civic activities will be considered as well as awards received. The nominee must be a member of ASME.

Outstanding Engineer-in-Management Award – To be presented to the engineering manager deemed by the nominator to have done an outstanding job in furthering the goals of ASME and the engineering profession. The ability to select and develop engineers as well as to communicate with and motivate engineers will enter into the selection of awardee. The nominee must be a member of ASME.

Outstanding ASME Student Member Awards – Four awards will be made in recognition of academic achievement and outstanding service to an ASME student section. Student awards are the Jerald D. Parker Award (OC), the James H. Boggs Award (OSU-MAE), the Tom J. Love Award (OU), and the Outstanding Student Award (OSU-MET).

For application and/or additional information contact: Ed Reynolds, 6507 N.W. 96th Street, Oklahoma City, OK 73162, Phone: (405) 721-6753, E-mail: edwin_c_reynolds@yahoo.com . **Nomination deadline is March 19, 2004.**

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Future ASME-Central Oklahoma Section and Other Events

Date	Location	Program Topic and Speaker
March 25, 2004 (Thursday)	Okla. Eng. Center 201 NE 27 th St., OKC	March ASME-COS Section Meeting -- Speaker: Dr. Henry Neeman, OU Supercomputing Center for Education and Research. Presentation: <i>"Supercomputing in Plain English"</i>
March 25-27, 2004 (Thurs. – Sat.)	STUDENTS NOTE LeTourneau University, Longview, TX	 Region X Regional Student Conference Region X Grad. Student Technical Conference (http://www.asme.org/regions/region_x/)
April 16-17, 2004 (Fri. – Sat.)	Check http://www.pels.state.ok.us/ for locations	 Fundamentals of Engineering Exam (FE) (http://www.pels.state.ok.us/forms/apps_EI.html) Professional Engineering Exam (PE) (http://www.pels.state.ok.us/forms/apps_PE.html)
April 22, 2004 (Thursday)	Okla. Eng. Center 201 NE 27 th St., OKC	April ASME-COS Section Honors and Awards Meeting
May 27, 2004 (Thursday)	TBA	May ASME-COS Section Meeting

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

<http://www.asme.org/Sections/CentralOK>

ALSO VISIT THE ASME SOUTHERN FIELD OFFICE, DALLAS, TX AT

<http://www.asme.org/regions/sro/>

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Mechanical Engineers
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<p>DATED MATERIAL – PLEASE DO NOT DELAY</p>
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**The American Society of Mechanical Engineers -- Central Oklahoma Section
Ballot for 2004-2005 Executive Committee Officers & Directors**

<u>POSITION</u>	<u>NOMINATING COMM. NOMINEE</u>	<u>VOTE</u>	<u>YOUR WRITE-IN NOMINEE</u>	<u>YOUR VOTE</u>
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Chairman	Ed Reynolds, P.E.	_____	_____	_____
First Vice-Chairman	Frank Parker, P.E.	_____	_____	_____
Treasurer	Michael Frey	_____	_____	_____
Secretary	Tom Betzen, P.E.	_____	_____	_____
Vice-Chair, Programs	Albert Janco, P.E.	_____	_____	_____
Vice-Chair, Membership	Albert Janco, P.E.	_____	_____	_____
Vice-Chair, Prof'l Dev't	Frank Parker, P.E.	_____	_____	_____
DIRECTORS				
	Jon Akins	_____	_____	_____
	Frank Chambers, Ph.D., P.E.	_____	_____	_____
	Wendell Cavin, P.E.	_____	_____	_____
	Bill Green, P.E.	_____	_____	_____
	John Heaton, P.E.	_____	_____	_____
	Tommy Lear, P.E.	_____	_____	_____
	Ed Root	_____	_____	_____
	Jamal Siddiqui	_____	_____	_____
	Curtis Vickery, Ph.D., P.E.	_____	_____	_____
	Nathan Weber	_____	_____	_____
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TO VOTE FOR COMPLETE NOMINATING COMMITTEE SLATE, CHECK HERE

EX-OFFICIO MEMBERS OF THE EXECUTIVE COMMITTEE (for information only)

Past Chairman (03-04): Doug Brown, REM

STUDENT SECTION FACULTY ADVISORS AND DEPARTMENT HEADS:

<u>UNIVERSITY</u>	<u>FACULTY ADVISOR</u>
Oklahoma Christian University	Wayne Whaley, Ph.D., P.E.
Oklahoma State University-MAE	Hongbing Lu, Ph.D.
Oklahoma State University-MET	Rick Beier, Ph.D.
University of Oklahoma	Rong Gan, Ph.D., P.E.

DEPARTMENT HEAD

Byron Newberry, Ph.D.
Larry Hoberock, Ph.D., P.E.
James Bose, Ph.D., P.E.
Sub Gollahalli, Ph.D., P.E.

It's Our Election Time !!!

Below is the 2004-2005 Exec Committee Officer/Director election ballot that needs your careful consideration and action. A terrific slate of candidates has been identified to lead our Central OK Section for the next program year, but we need additional interested members to serve as Directors to fill and/or help with various committees. Serving on the Section Executive Committee is challenging and personally rewarding. If interested in serving as a Director, feel free to nominate yourself! If you or any potential candidate have any questions regarding Exec Committee service, please contact Doug Brown at (580) 531-5871 (brown919@asme.org). Most importantly – **PLEASE VOTE !!!** Mail your ballot to **Frank Parker** at 4924 NW 26th St., OKC 73127, **OR** fax it to **Frank Parker** at 405-739-1999 **OR** bring it to our March Section Meeting, by **March 25th**.