



Chairman's Message

This is our first full edition of the new electronic chapter bulletin. We're still working on some of the formatting and would appreciate any feedback that you might have. The bulletins and chapter meeting minutes are now being maintained on our chapter web site as well.

The executive team is also working on improving the accuracy of the SME chapter database to ensure that all members are informed of chapter activities. If you've recently changed jobs and/or internet providers and have a new email address, please send me an email (kfaith@paccar.com) with the new information so that I can update the database.

We have some very exciting tours and technical meetings coming up in the next couple of months so be sure to check the chapter calendar each week for new updates <http://chapters.sme.org/039/99calendar.html#current>.

Everyone should have received the notice that the Tri-region COC meeting (regions 12, 13, & 14) will be held at the Hyatt in Bellevue beginning September 28 so mark your calendar now.

Our Congratulations to the WWU student chapter on their 2nd place finish at WESTEC Manufacturing Challenge! Please be sure to check the WWU website after spring break for more information and photos.

Ken D. Faith
Chairman

2000 OFFICERS – SME CHAPTER #39

Tim Bond – Chair-Elect (2001 Chair)
James Stockard – Treasurer
Glen Barnett - Secretary
Chapter voice mail (206-781-4207)
<http://chapters.sme.org/039/index.html>

Events and Meetings

Design Manufacturing Validation & The Virtual Factory

WHERE: Silver Cloud Inn
10621 NE 12th St.
Bellevue, WA 98004



[CLICK HERE FOR
MAP/DIRECTIONS.](#)

WHEN: April 11 at 6:30 pm
Social begins at 6:00 pm

Free Pizza, refreshments, and door prizes
For members & students. (Guests \$3)



Visit Our Local Student Chapters





Design Manufacturing Validation & The Virtual Factory

— Submitted by Bill Reiter & Jay Palmer

Through the use of software engineering tools simulate the design, fabrication, and assembly of a product to find and eliminate functional and manufacturing problems before they occur in a new or sustaining product environment.

Bill Reiter, BS Mechanical Engineering, Rutgers, MS Mechanical Engineering, Auburn, PhD Mechanical Engineering, North Carolina State. North Carolina State Mechanical Engineering faculty member for approximately 15 years teaching in the area of machine design and mechanics, conducting research in automation, machine design, vibrations and acoustics. IBM Corporation, 10 years, technical marketing in manufacturing systems to include robots, and supporting software systems, technical consultant to many companies in the implementation of design for automation. Currently, Boeing Professor of Design/Manufacturing in the mechanical engineering department of Oregon State University. Research and teaching in the use of advanced 3-D graphical systems for design manufacturing validation—a new and current direction and philosophy in engineering design education.

Deneb Robotics Inc., a subsidiary of Dassault Systèmes www.dsweb.com, is a worldwide recognized leader of CAD independent digital manufacturing software. Deneb offers an integrated suite of tools that begin at the conceptual phase of product and process design enabling design for assembly, design for manufacturability and design for maintainability. Deneb's suite includes products for: discrete event simulation for factory layout and throughput analysis; workcell tooling design and validation; assembly planning and analysis; human motion and task analysis; robotic off-line programming; CNC program validation; CMM program verification; and simulation-based training. All products can be viewed in a Virtual Reality environment, shared around the world using

Deneb's Virtual Collaborative Engineering environments, and run from a PC on the shop floor or in the field for operator instructions. Deneb Robotics' software is widely used in the aerospace, automotive, defense, environmental, medical, nuclear and research communities.

Upcoming Technical Meetings

May 9: Joint meeting with ASQ

Speaker: Helene Mawyer
Executive Director of Quality - PACCAR Inc

Summary of March 14 Presentation On Patents

— by Steve Kotula

The process of obtaining both US and foreign patent protection was presented by exploring the accompanying definition of a patent in detail. Specific attention was given to events within inventors' control that can inadvertently prohibit them from obtaining US or foreign patent rights. Procedures were recommended to maximally preserve potential patent rights during development of patentable inventions.

Financial Planning and Investment Seminar

Saturday, April 29 from 9:00 am to 11:00 am. Breakfast pastries, coffee and juice will be served.

Michael Christiansen, a financial consultant of Merrill Lynch and a former Boeing engineer, will be hosting a Financial Planning and Investment seminar to answer the following questions:

- How should I invest for the year 2000 and beyond?
- How much money do I need to achieve a secure, worry-free retirement?
- How can I provide for the educational funding of my children?



- How do I properly plan an investment portfolio?
- What investment strategy is appropriate for me?
- What different investment vehicles are there?

Michael specializes in financial planning and also has a background in mechanical and manufacturing engineering. With his financial and technical background, he has chosen to focus on financial planning for individuals and small businesses involved in the engineering and manufacturing fields. This is his first in a series of seminars for the year and he looks forward to discussing many valuable topics with everyone.

Directions:

1215 Fourth Avenue, Downtown Seattle
Financial Center Building, Floor 26
The building is on the corner of Fourth Avenue and University Street adjacent to the University Bookstore. For added clarification, it is one block east of Benaroya Hall's south end. The best place to park is on Union between Third and First Avenue.

Contact Information:

Michael B. Christiansen
(206) 464-4355
mchristians@pclient.ml.com

The Washington State Engineering, Science and Technology Fair™

—Submitted by James Stockard

For years the SME booth did not seem to attract too much attention during the fair. Per Michael Challenger's, past Chair for chapter 39, suggestion the chapter approached the student chapters, UW and WWU, about helping develop a booth that would attract people to our booth. The audience has generally been parents with their children or children. The children are typically in elementary or just starting middle school. We

provided this information to the student chapters. What the SME students at UW did was develop a sailboat race contest for the children.

It was a simple contest. The children could make their boats from foam, styrofoam, aluminum and toothpicks/skewers. The wind was provided by using a box fan. After each race the students asked the participants how they could improve their boats. This gave them a chance to think about engineering on a simple level. The booth was slow for the first half hour of each day, but was packed with children and parents participating or looking throughout the day. The booth still had plenty of activity an half hour after the fair ended on each day. The booth received many complements from the parents and children as being the most fun or having an activity that they can participate in. It looks like SME has found a winner. I would like to personally thank the students at UW for developing the booth and manning the booth. Professor Ramulu for coming and giving moral support on Saturday.

Our special thanks to all the student volunteers and James Stockard for coordinating the SME booth at the fair.

Scott Bernhardt	George Lo
Mel Capilitan	Luke Nervig
William Hoeijaya	James Stockard
Cherianne Lee	Wina Wichienwidhtaya
Pete Lee	Mark Wong

WWU Tour

— Submitted by James Stockard

On March 4th the students at WWU conducted a tour of their facilities. This gave SME a chance to mingle with the students and see their curriculum. The day started with a social hour in one of the classrooms. The tour began in their machine shop. The participants were able to see older equipment as well as new equipment, such as a 3-axis MAZAK lathe. Since most of the students are working on the SAE cart. We were able to stop by and see



were they develop their fiberglass body. We saw previous models and a mini autoclave. We then got a chance to see the lab where they work on developing most of the SAE car as well as other type of concept vehicles. This was immediately followed by seeing a couple of student projects, which were building a circuit board via a robot and building a light socket via a robot. We were then taken to their plastics lab followed by their rapid prototyping/computer lab. The tour ended with a look at another computer lab, which the students demonstrated Pro-E. The tour took about 3 hours. As always I would like to thank the students of WWU and Erik McKell, faculty advisor for taking the time out in order to host the event.



Left to right: Ed Smith, Bill Forde, Gary Locke and Ted Wright

—Submitted by Bill Forde

On February 10, 2000 Bill Forde, Seattle Chapter 39 of the Society of Manufacturing Engineers (SME), Ted Wright Washington Society of Professional Engineers WSPE Seattle Chapter, Ed Smith, American Society of Military Engineers (ASME) Seattle Chapter carpooled to Olympia WA to Governor Gary Locke's office to be a part of the State of Washington "Engineers Week" proclamation signing at 10:00 in the morning. These gentlemen represented their Society's and the Puget Sound Engineering Council (PSEC) at this event. Engineers week 2000 was from February 20 - 27 which is traditionally the week of

George Washington's birthday who is known as the father of engineering in our country. We all celebrate the accomplishments of the engineering profession at this time. PSEC has charge of the events that happen during Engineers Week.

WWU Competition Update

Student Projects Try to One-Up the Competition and "Lift" the Grand Prize at the Annual WESTEC Manufacturing Challenge

March 20, 2000 at the Los Angeles Convention Ctr

DEARBORN, Mich. - Dec. 7, 1999 - Will there be a new "King of the Hill" at the [WESTEC 2000](#) Manufacturing Challenge? For the past two years, Arizona State University-East (Mesa, Ariz.) has taken top honors for its hydrogen-powered forklift and lawn mower projects, but the competition is sure to be as fierce as ever when the annual event returns to the Los Angeles Convention Center on Monday, March 20, 2000.

Running from 9 a.m. - 6 p.m. in the South Hall, this open-ended, creative engineering contest features manufacturing projects brainstormed, designed and built by college students. Following the competition viewing and judging (9 a.m.- 4 p.m.), there will be a public awards ceremony from 6 - 7 p.m.

"It's amazing how creatively students can apply their collective manufacturing knowledge to design and produce usable products. If the last couple of years are any indication of what's in store for the 2000 competition, the best may yet to be seen," said Mark Stratton, education manager for the Society of Manufacturing Engineers (SME).

Nearly 200 engineering and technology students and their instructors from technical schools, community colleges, and universities across the United States will enter their unique manufacturing projects to compete for a total of over \$100,000 in cash prizes and computer software and hardware.

The students' projects consist of displays, working models or systems, robotics, material applications, or a combination of all of these.



For additional information, contact Katie Ferrell, SME Education Department, (313) 271-1500, ext. 1704, or Eva Korzeniewski at ext. 1703.

[WESTEC 2000](#) is co-sponsored by SME, rated in the Tradeshow Week Data Book 1998 as a top-10 tradeshow producer, the American Machine Tool Distributors' Association (AMTDA), and AMT-The Association For Manufacturing Technology. WESTEC is part of the Advanced Productivity Exposition (APEX) series produced by SME. APEX events bring together builders, distributors and users of machine tools and metalworking equipment in key U.S. manufacturing centers. There are four APEX events scheduled in 2000.

SME, headquartered in Dearborn, Mich., is an international professional society dedicated to serving its members and the manufacturing community through the advancement of professionalism, knowledge and learning. Founded in 1932, SME has over 60,000 members in 70 countries. The Society also sponsors some 295 chapters, districts and regions, as well as 275 student chapters worldwide.

SME Databases Link Qualified Professionals With Quality Employers

SME's Manufacturing Jobs Database and Resume Database summarize professional and personal information required by both job hunters and prospective employers. These databases are free and available to SME members.

The Manufacturing Jobs Database serves as a resource by posting engineering, technical and professional job openings. Members search the job openings by visiting the Jobs Database, under the Membership heading, on the SME Home Page (www.sme.org). SME members interested in submitting resumes should contact the SME Customer Service Department at (800) 733-4763 (U.S.A. only) or (313) 271-1500 and request a Resume Database Information Sheet. Employers, who are searching for qualified engineers, technicians and manufacturing professionals are asked to call Resume Link at (614) 923-0600 or e-mail at socmember@resume-link.com.

Welcome New Members

Bruce K. Anderson
Paula M. Ballard
Paul N. Bates
Joshua Boyd
Greg Hall
James G. Lazarus
Krizan Livic

Cinda McClure
Christopher J McGrath
Paul John Risch
Sam Visaisouk
Jerry Walton
Michael J. Yamamoto

SME Member Profile Dwayne Eiford



Dwayne is the Compliance Manager for Korry Electronics Company located in Seattle, a division of Esterline Technologies. Korry is a manufacturer of Illuminated Switches, Bezels, Panels, Keyboards, Displays, and Subsystems for the Aerospace and Defense Markets. He

is responsible for assuring Korry's compliance to all customer and regulatory requirements including safety and environmental. During Dwayne's nine years at Korry he has also held Positions of Lead Auditor, Manager of Quality Engineering and was the Project Manager for their ISO 9001 implementation, which resulted in Korry's registration by Det Norske Veritas (DNV) in April of 1997.

Prior to joining Korry, Dwayne worked at FMC Corporation for 15 years for both the Marine and Rail Division in Portland, Oregon and the Ground Systems Division in San Jose, California. At FMC his career included; Supplier Quality Assurance Manager, Field Quality Engineering Manager, Field Quality Engineer, Purchased Material Inspection Requirements Program Manager, Quality Engineer, Quality Analyst, and NDT Level III Inspection Technician.



Dwayne started his career as a Certified Welder in 1967 with an Associates Degree in Welding Technology from Clark College in Vancouver, Washington. He completed his Bachelors Degree in Business Administration from Portland State University while working fulltime in 1980. Dwayne is currently continuing his formal education at nights in the MBA program specializing in Technology and Innovation Management (TIM) at Pacific Lutheran University. In addition to his formal education, he holds a number of Certifications from societies like SME. These include:

American Production & Inventory Management Society (APICS) - CIPM & CIRM
American Society for Quality (ASQ) - CQA, CQE, CRE, & CQMgr

Institute of Internal Auditors (IIA) – CIA,
National Association of Purchasing Management (NAPM) – CPM

Society of Manufacturing Engineers (SME) – Cmfge, & working on CIE,

Dwayne is also active in a number of State, National and International Organizations that include:

American Electronics Association for Washington State (AEA) – Quality Network Chairman, Executive Committee Programs Chairman, Member of the Higher Education Task Force

Aerospace Industry Association (AIA) – Member of the Supplier Management Council and the Aerospace & Defense Quality Management Council

America's Aerospace Quality Group (AAQG) – Non-Voting Member currently working on the Quality Management Systems Teams for AS9100: 2000 (OEMs) and AS9110 (Maintenance Facilities aka Repair Stations)

International Aerospace Quality Group (IAQG) – Non-Voting Member

Washington State Quality Award – 2000 Judge, 1998 – 1999 Senior Examiner, 1994 – 1997 Examiner

Malcolm Baldrige National Quality Award – 1999 Examiner

Boy Scouts of America (BSA) – Scoutmaster Troop 172 – Sumner, Washington

Dwayne is a Viet-Nam Veteran who served in the Army's 198th Infantry (1967 – 1969).

Dwayne has been married for 29 years to his best friend Betsy. Together they have two great children; Allison a Washington State Promise Scholarship Freshman at Western Washington University, and Michael an Eagle Scout & Sophomore at Sumner High School.

Dwayne also has a small Quality Consultant business for work that doesn't conflict with his responsibilities at Korry. He can be reached at (253) 863-2740 or through his website at www.e-qualitymanual.com or e-mail him at dwayneleiford@worldnet.att.net

IN MEMORY

—Submitted by Greg Ripley

Harvey E. Buffum, CMfgE died on Friday March 3, 2000. He was a Life Member, having joined the Society (American Society of Tool Engineers) in April 1943. In the early 90's Chapter 39 devoted a whole technical meeting to presenting Mr. Buffum with his 50 Year membership award and enjoying a brief description of his long and eventful career in manufacturing and his views on industrial productivity and the state of the manufacturing art at that time. Harvey started the Manufacturing Research and Development organization at the Boeing Company. He was dedicated to the idea of continuous improvement and constituted MR&D to operate in that mode long before it became the flavor of the month. In addition to starting MR&D, he developed an organization headquartered at North Boeing Field for supporting all of Preliminary Design, Structural Test, Systems Test as well as the Flight Test and Delivery organization. He reported directly to the BCA Vice President of Engineering.

Hank Fenbert and I worked for him prior to his retirement. He always drove a '55 Chevy that he had completely restored. He was a great guy and a great supporter of SME and all his subordinates who were members.



Included below is his obituary as it appeared in the Skagit Valley Herald:

HARVEY EDWIN BUFFUM

Harvey Edwin Buffum, 81, of Anacortes died at his home Friday, March 3, 2000.

He was born in Tacoma, Washington, February 9, 1919, the son of Manville E. and Edith K. (Bechtel) Buffum.

He attended the University of Washington and while in school worked on patent drawings for Reynolds and Beech Patent Attorneys.

During World War II he worked for the Boeing Company and started a fishnet float manufacturing business from one of his designs. Harvey served in the Army from 1946 through 1948 in the Alaska Communications Service.

On March 20, 1949 he married Helen Reimers.

He worked for the Boeing Company for 38 years, retiring as Director of Operations Technology for the Commercial Airplane Division.

Though he traveled extensively and visited many areas, he loved the Pacific Northwest best. Harvey was always very active, his interests included boat building, sailing, experimental aircraft, computers, and building and working with machine tools. He had the ability to repair or remodel just about anything and did a major part of designing and construction on two family homes.

Baptized and confirmed as a member of the Lutheran Church on January 14, 1951 he was an active member of various Lutheran churches, most recently the Anacortes Lutheran Church, after moving from the Seward Park area of Seattle to Anacortes, in 1984.

Harvey participated in the National Academy of Sciences, and was a member of the Experimental Aircraft Association, the American Society of Manufacturing Engineers and the Fidalgo Yacht Club. Most recently he enjoyed community service work through the Kiwanis Sunrisers of Anacortes and the West End Watch Patrol.

Harvey is survived by his wife, Helen, at the family home; his two daughters and sons-in-home, Kathryn and Dennis LisSette of Kirkland, WA, Carole and Ken Davis of Mt. View, CA; two sons

and daughters-in-law, Edwin and Holly Buffum of New York, NY and Kenneth and Kim Buffum of Issaquah, WA; three grandchildren: Michael, Shawna, and Daniel; his two brothers: Warren and Glenn Buffum; as well as numerous nieces, nephews and cousins.

Memorials are suggested to the Anacortes Lutheran Church or the Kiwanis Sunrisers of Anacortes.

Services were held at 2:00 p.m., Tuesday, March 7, 2000 at the Anacortes Lutheran Church.

Arrangements under the care of Evans Funeral Chapel, Anacortes, WA.

Western's SME Student Chapter Takes 2nd Place in the 4-year University Category

—Submitted by Eric McKell

It is official, Western's SME Student Chapter took 2nd place in the 4-year university category. All members of the team put a lot of hard work and time into making this project a success. They are very close to getting the first engine running. We can still use any support any of you are willing to give to the team to finish the project and we are very grateful for the support we have received to date. What the students have accomplished is very impressive when you consider that they are doing the work. We will be posting pictures and information on our website once the students return from spring break. We hope you all get the chance to stop by and wished you had been able to attend our chapter meeting we held in March. We will keep everyone up-to-date on our progress.



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