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ROSE-HULMAN INSTITUTE OF TECHNOLOGY

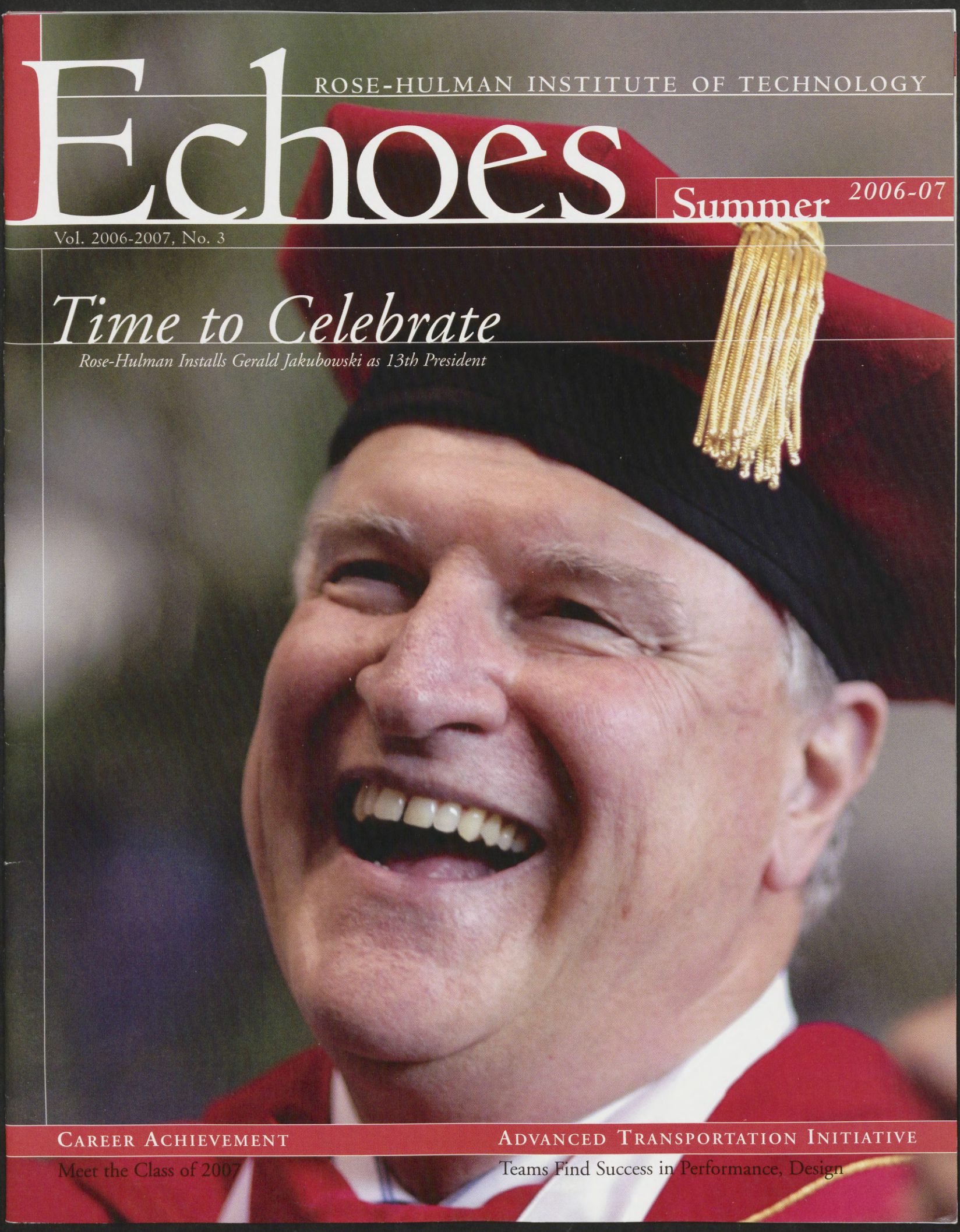
Echoes

Summer 2006-07

Vol. 2006-2007, No. 3

Time to Celebrate

Rose-Hulman Installs Gerald Jakubowski as 13th President

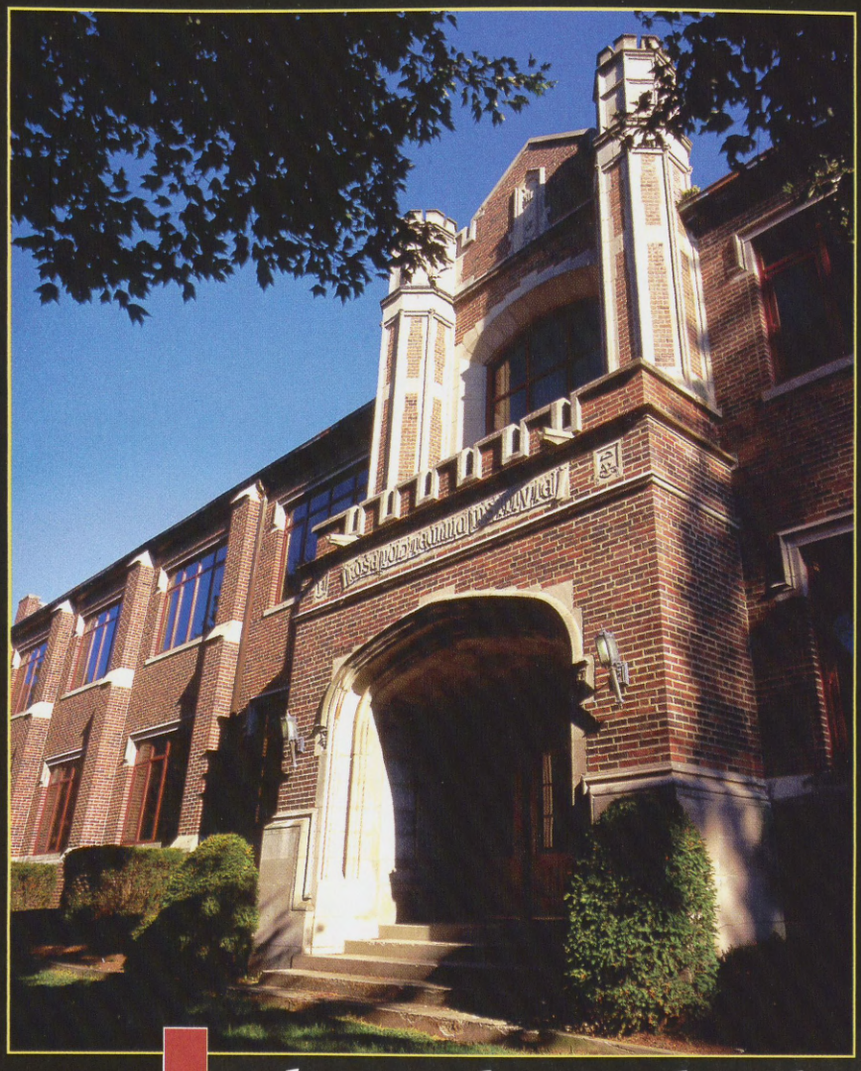


CAREER ACHIEVEMENT

Meet the Class of 2007

ADVANCED TRANSPORTATION INITIATIVE

Teams Find Success in Performance, Design



heard in the halls of Moench

"The ingredients here are in place. Take the leadership to the next level; put the ingredients together and change the culture of engineering education."

— *George Peterson, executive director of ABET, the accrediting agency for engineering education, addressing President Gerald Jakubowski during the installation ceremony of the inauguration*

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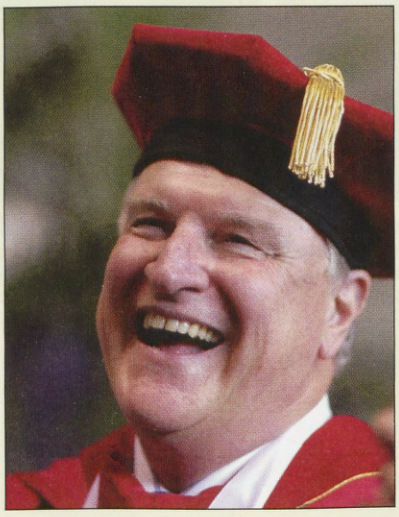

ON THE COVER

President Gerald Jakubowski enjoys a comment during the installation ceremony for his inauguration this spring. The portrait was captured by photographer Chris Minnick.

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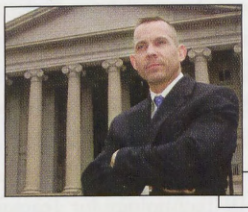

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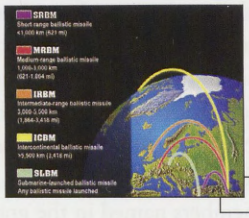

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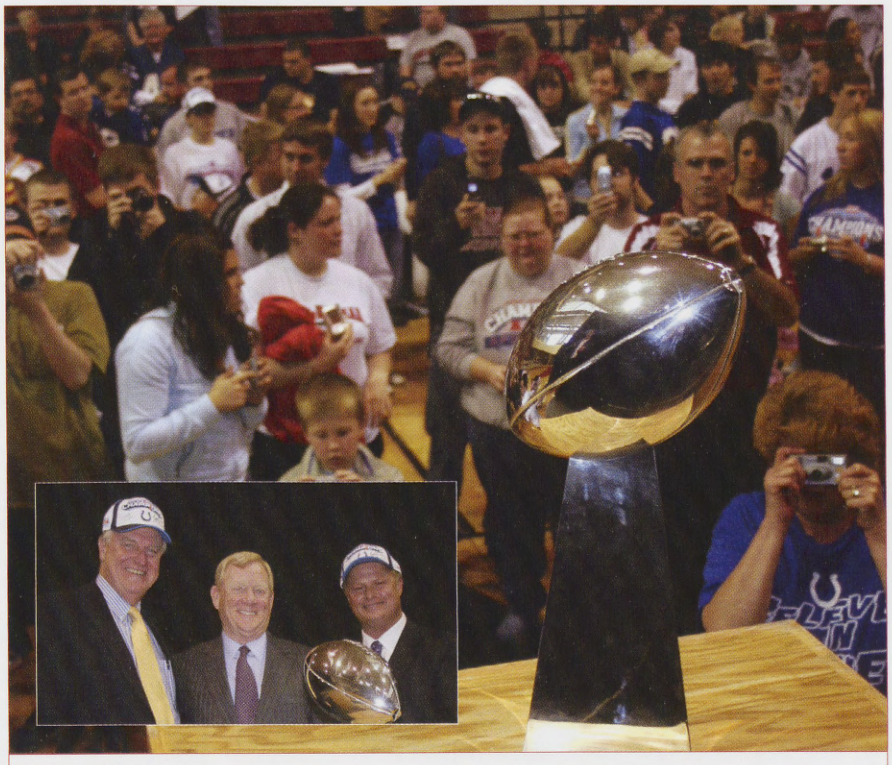
HP & MICROSOFT CONTINUE EDUCATIONAL TECHNOLOGY PROGRAM SUPPORT

Rose-Hulman has received wireless equipment, faculty stipends and technical support from Hewlett-Packard and Microsoft Research to improve student achievement. Support from these two companies continues to recognize the college as a leader in the field of tablet PC and collaboration-facilitating software pedagogies, according to Art Western, vice president of academic affairs.

The HP Technology for Teaching Grant is designed to transform teaching and improve learning in the classroom through innovative uses of technology. The grant provides a set of new tablet PCs and other equipment, as well as summer support for faculty involved in the project. Faculty members named in the grant were Archana Chidanandan of computer science and software engineering, David Fisher of mechanical engineering and Mario Simoni of electrical and computer engineering.

Rose-Hulman has received support from Microsoft Research for the second consecutive year for the "Evaluating the Symbiosis of Pen-based Computing and Collaboration-facilitating Software in the Classroom" project. Faculty members spent the 2006-07 school year assessing the impact of tablet computers and collaboration software on faculty pedagogy and student learning. In 2007-08, faculty will study such issues as "Facilitating Collaboration between Language Teachers and Learners," "Encouraging Student Collaboration in Biomechanics" and "Medical Imaging Virtual System Design with a Tablet PC."

The HP and Microsoft Research projects will involve a substantial assessment component managed by the Office of Institutional Research, Planning and Assessment.



TROPHY TIME
Faculty, staff, students and their families crowd around the Lombardi Trophy which the Indianapolis Colts received for winning the Super Bowl this year. The Colts conduct their summer training camp at Rose-Hulman and shared the trophy during a spring ceremony. Inset: President Gerald Jakubowski, Bill Polian, Colts president, and David Patterson, executive director of the Terre Haute Convention and Visitor's Bureau.

REMEMBERING VIRGINIA TECH

Rose-Hulman students, faculty and staff responded to the April 16th shootings at Virginia Tech by signing a sympathy card and conducting a memorial service. Left: Department of Chemical Engineering Secretary Mary Wade lights a candle to honor one of the victims from the recent shootings at Virginia Tech. Right: Student Natalie Dickman signs a card that was sent to Virginia Tech.

VETERAN HIGHER-EDUCATION FUNDRAISER SERVES AS NEW VICE PRESIDENT FOR DEVELOPMENT

Rose-Hulman Institute of Technology has selected a veteran higher-education fundraising professional as the college's new vice president for development.

Mark Lindemood joined the Rose-Hulman administration on June 1 to manage the Office of Development. He was previously vice chancellor for institutional advancement and chief operating officer, Texas Tech Foundation, Inc. Lindemood also held the vice president's post for eight years at Kent State University and was executive director of university development at Ball State University. In addition, he was director of capital resources at St. Norbert College, and director of development at Regis and Missouri Valley colleges.

"Mark Lindemood brings proven fundraising success to the vice president's position," stated Gerald Jakubowski, Rose-Hulman president. "His knowledge and experience will be vital to our current and future fundraising needs that will be directly linked to the goals outlined in a strategic plan that is nearly completed." Jakubowski noted.

"He has successfully planned and implemented several major fundraising campaigns that have exceeded their goals and helped to increase college or university endowments," he said. Lindemood was selected following a nationwide search.

"This is an exciting time to join the Rose-Hulman staff because of the strategic planning under way, and the leadership and vision provided by President Jakubowski," Lindemood commented.

"I was attracted to Rose-Hulman for many reasons, including its increasing national reputation, the dedication of the faculty, staff and students, and the strong support it receives from its alumni and other friends," he noted.

Lindemood received his bachelor of arts degree from Albion College, the master of divinity from the Methodist Theological Seminary, and the doctor of ministry from the Pittsburgh Theological Seminary.

He has been an invited speaker at national seminars and conferences sponsored by the Council for the Advancement and Support of Education (CASE).

Lindemood has been an active community volunteer which has included serving in leadership roles with economic development organizations, service clubs, and the United Way.

Lindemood and his wife, Deb, are the parents of two daughters: Haley in Willoughby, Ohio; and Abbe Ernstes, Madison, Ind.

ROSE-HULMAN PLAYS ROLE IN ECONOMIC/EDUCATION INITIATIVE

The Terre Haute Innovation Alliance, a new economic development and education initiative, is already beginning to pay dividends, local officials said this spring in announcing its creation.

The partnership between Rose-Hulman, the City of Terre Haute, the Terre Haute Economic Development Corporation and Indiana State University has started providing services to three companies in the process of developing or expanding their products while engaging students in hands-on projects and creating jobs for the local economy, said Steve Witt, president of the Terre Haute Economic Development Corp.

The creation of the Terre Haute Innovation Alliance was announced in April. The partnership was started with $500,000 in federal support garnered with assistance from Indiana Senators Evan Bayh and Richard Lugar.

"This partnership will help new businesses create innovative technologies and prepare students for a new emerging economy. The Innovation Alliance will be instrumental in developing business growth in the life sciences, which is a high priority for the state of Indiana," said Gerald Jakubowski, president of Rose-Hulman Institute of Technology.

The three companies involved — DesAcc, Infraware and Novus Technologies — are all technical in nature with two providing applications and services for the health care industry. All three companies will be utilizing space within ISU's John T. Myers Technology Center for a portion of their operations. Two of the companies have and will continue to benefit from the services provided by project managers and students at Rose-Hulman Ventures.

In addition to physical space for their product development, the companies selected to participate also receive business development funding as well as services from students and faculty at the two higher education institutions. Providing career-related experiences for students and actively engaging them in the companies' projects may help retain them in the community after they graduate, said Kevin Burke, mayor of Terre Haute.

"This will not only help us attract the students we need but will provide them with the opportunity and the potential of being able to stay and chase their dreams right here in Terre Haute," said Burke.

PROFESSORS, STUDENTS EXAMINE DEVELOPMENT OF "GREEN" BIODIESEL OIL

Professors Michael Mueller and Patrick Cunningham joined four students this summer in assisting the Hoosier Biodiesel Company to evaluate the development of a "green" two-cycle engine oil based on biodiesel that is to be mixed with fuel. The research may lead to making the college a center for research and development of alternative renewable energy resources.

Matt Colchin, Chad Whitaker and Doug Hale examine two-cycle engines being tested in a summer research project on the development of "green" biodiesel oils.

Mueller, head of the Department of Chemistry, and Cunningham, assistant professor of mechanical engineering, have contracted with Imperial Petroleum Inc. to test oil via ASTM standards and engine tests based on National Marine Manufacturers Association (NMMA) standards. More than 100 hours of engine tests will be conducted to investigate the wear and deposits associated with the new oil. The ASTM tests examine the chemical and physical properties of the oil, including viscosity and lubricity.

"The project is at the cutting edge of fuel technology in that it is using a biodiesel as a two-cycle engine oil additive," Mueller said.

The "green" two-cycle engine oil project is significant because it supports renewable oil development as an alternative to fossil fuel oils, according to Cunningham.

Further work may involve fuel design such as an E85 containing biodiesel instead of gasoline, an ethanol-biodiesel blend, and the new two-cycle engine fuel. Two-cycle engines are used in grass trimmers, chain saws and outboard motors.

Students play an integral role to the project and will gain valuable hands-on experience through operating engine tests, tracking key engine performance and operating parameters, and completing engine tear-down and inspections. The research group includes junior mechanical engineering majors Matt Colchin, Doug Hale and Chad Whitaker, and Ben Collins, a junior chemical engineering and mechanical engineering major.

CIVIL ENGINEERING & MATH TEAMS CAPTURE STATE TITLES

Teams of civil engineering and mathematics students once again reaped top honors against peers from state colleges and universities in this year's American Society of Civil Engineers' Indiana Senior Design Presentation and Indiana College Mathematics competitions. This marks the 12th time out of the past 14 years that a Rose-Hulman team has topped the ASCE competition.

Rose-Hulman's award-winning team completed the 10th Street Extension and Modernization Study for the Metropolitan Planning Organization of Bloomington, Ind. The project examined ways to improve the safety and efficiency of multi-modal transportation along the north perimeter of the Indiana University campus with the modernization of key east/west corridors around the city.

Members of the design team included Rob Adolph, Drew Lopshire, David Massey, Ryan Robinson and Todd Stout.

Rose-Hulman's mathematics team earned 58 of a possible 60 points to place first in the ICMC competition, which included 40 teams from throughout the state. Team members were Robert Lemke-Oliver, Hari Ravindran and Amanda Rohde. Rose-Hulman's second team was eighth, while two other teams placed 13th and 14th.

An environmentally friendly snow-and-ice removal system designed for the Indianapolis Airport Authority earned third-place honors in the Federal Aviation Administration's first Airport Design Competition for Universities. Splitting the $1,000 prize were 2007 civil engineering graduates Christopher Armstrong, Mark Johanning, William Kenny, Roy McIlwaine and Robert Wilson.

TWO ALUMNI ELECTED TO BOARD OF TRUSTEES

Two Rose-Hulman Institute of Technology alumni have been elected to the college's Board of Trustees. Attending their first trustee meeting in May were William Olah and Carlton O'Neal.

Olah is a partner in the Terre Haute law firm of Wilkinson, Goeller, Modesitt, Wilkinson and Drummy LLP. He heads the law firm's business section and serves as counsel to business entities and their principals in the areas of small business mergers and acquisitions. He also has extensive experience in real estate development, leasing, zoning issues, and tax abatements. He advises clients about federal and state tax issues including trust and tax planning. Olah has represented clients before a variety of administrative agencies and courts including the United States Supreme Court.

Olah graduated in 1974 from Rose-Hulman with a bachelor's degree in biological engineering. He earned his law degree from the University of Arkansas School of Law. He serves on the Rose-Hulman

William Olah

Carlton O'Neal

Alumni Association Advisory Board as chair of the Student Alumni Association committee. He also has membership in the American, Indiana State, Seventh Circuit and Terre Haute Bar Associations.

O'Neal is vice president of marketing and business development for San Diego-based Proximetry, Inc. He graduated from Rose-Hulman in 1984 with a bachelor of science degree in electrical engineering. O'Neal earned his MBA and law degrees from Southern Methodist University, where he is currently a member of the Cox School of Business Alumni Board.

A WiMax pioneer, O'Neal has over 20 years experience in telecom marketing, and as a leading spokesman for broadband wireless issues worldwide. He began his career with Southwestern Bell and Octel. Prior to joining Proximetry, he was vice president of marketing for Alvarion and also Ensemble Commucations, where he helped build the WiMax market from its very beginnings starting with Texas Instruments.

NEW ACADEMIC DEPARTMENT HEADS ASSUME DUTIES

Two Rose-Hulman Institute of Technology faculty members have been selected as new academic department heads.

Anice Anderson has been named head of the Department of Engineering Management and Michael Mueller has been selected as the new head of the Department of Chemistry.

The Department of Engineering Management offers a master's degree in engineering management and an undergraduate minor in entrepreneurship as well as popular electives that provide management and entrepreneurial skills for the engineer and scientist. Anderson succeeds Prof. Tom Mason, who directed the creation of the department in 1995, and has served as its only department head. Mason will return to full-time teaching in engineering management and economics following a sabbatical during the 2007-08 academic year.

Anderson joined the Rose-Hulman faculty in 2004 as associate professor of engineering management. She teaches courses in organizational management, supply chain management, entrepreneurship, introduction to engineering management, integrated project, graduate seminar and multidisciplinary entrepreneurship design. Prior to joining the Rose-Hulman faculty, Anderson taught at Arizona State University and gained extensive industrial and managerial experience in the United States and internationally with Honeywell International, Boeing Corporation, Raytheon, United Parcel Service and other companies.

Anice Anderson

Michael Mueller

For the past several years, she coordinated national symposia on homeland security technologies. Anderson presented the first symposium on engineering entrepreneurship at the American Association for the Advancement of Science national meeting.

Anderson earned the Ph.D. in industrial engineering from Arizona State University.

Mueller, associate professor of chemistry, has been a member of the Rose-Hulman faculty since 1990. He teaches courses in general chemistry, physical chemistry, chemistry honors, quantum chemistry and molecular spectroscopy, undergraduate research and advanced physical chemistry. Mueller is currently working with undergraduate students on a research project to test a new renewable resource-based two-cycle engine oil. He said the project is at the cutting edge of fuel technology because it is using a biodiesel as a two-cycle engine oil additive. Mueller is being assisted on the project by Pat Cunningham, assistant professor of mechanical engineering at Rose-Hulman.

Before joining the Rose-Hulman faculty, Mueller taught in the Department of Chemistry and Biochemistry at the University of Texas at Austin. He is the author of a textbook titled, "Quantum Chemistry with Molecular Spectroscopy and Electronic Structure Computations."

He earned the Ph.D. in physical chemistry from the University of Texas at Austin, and the bachelor of science in chemistry from Texas A&M University at Kingsville.

Anderson and Mueller were chosen for the department head positions following nationwide searches.

LARGEST GRADUATING CLASS IN SCHOOL HISTORY JOINS ALUMNI RANKS

A record 422 Rose-Hulman graduates received degrees during the college's 129th commencement May 26 and were challenged to use their technical and scientific expertise to take the lead and be proactive in their careers and personal lives.

422
Rose-Hulman graduates received degrees

3,100
people estimated in the 2007 graduation crowd

7
seniors earned a perfect 4.0 during their careers

Rose-Hulman President Gerald Jakubowski, participating in his first Rose-Hulman commencement, presented degrees to 383 bachelor of science graduates and 39 master's degrees candidates. The number of bachelor's degrees and the total number of degrees presented was the largest in the college's history.

Commencement speaker Mike Hatfield told the commencement crowd estimated at 3,100 that the Rose-Hulman class of 2007 should believe in themselves and know that what they have learned is applicable to our country's needs.

"I challenge you to take the lead. You owe it to yourselves and to your community to do that," said Hatfield, a 1984 Rose-Hulman graduate and member of the college's Board of Trustees.

Ten graduating seniors, two professors and a staff member received special awards during the graduation program.

Seven new graduates were presented with the Heminway Medal, which is given to an undergraduate who has earned the highest grade point average during their four years at Rose-Hulman. Each recipient earned a perfect 4.0 grade point average. Recipients were:

- Robert Lauer, electrical engineering and mathematics double major from Dublin, Ohio
- Amanda Rohde, mathematics and chemical engineering major from Fargo, North Dakota
- Thomas Werne, electrical engineering and mathematics major from Ferdinand, Ind.
- Amelia Mae Huehls, chemistry, Indianapolis, Ind.
- Brian Thompson, an electrical engineering major from Gloucester, Va.
- Scott Ruskamp, computer engineering major from Dodge, Neb.
- Gautham Venugopalan, a mechanical engineering major from Franklin, Wis.

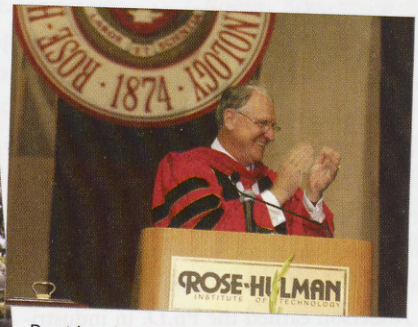
Other students honored were Stephen Lewis, Canton, Ohio, who was presented with the John Tuller Royse Award; Riley Buttry, Middleton, Ind., received the Herman Moench Distinguished Senior Commendation; and Marc Hans-Martin Schneider, Walheim, Germany was named the recipient of the award for the most outstanding master's thesis. He received a master's degree in optical engineering.

Dennis Paustenbach, left, receives his honorary doctorate from President Gerald Jakubowski.

The Dean's Outstanding Teacher Award was presented to Diane Evans, assistant professor of mathematics. Lee Waite, head of the Department of Applied Biology and Biomedical Engineering and professor of mechanical engineering and biomedical engineering, received the Board of Trustees Outstanding Scholar Award. The recipient of the President's Outstanding Service Award was Erik Hayes, director of residence life.

An honorary doctor of engineering degree was presented to Dennis Paustenbach, president and founder of San Francisco-based Chemrisk, Inc., a consulting firm specializing in human and ecological risk assessment and risk analysis of pharmaceuticals and medical devices. He is a board-certified toxicologist and industrial hygienist who has served on panels for the National Center for Environmental Health, the Centers for Disease Control and the Environmental Protection Agency. Paustenbach is a 1974 Rose-Hulman graduate, earning a bachelor of science degree in chemical engineering.

A packed house listens to commencement speaker Michael Hatfield.



President Jakubowski applauds the graduates.

FACULTY FOCUS: ENGLISH PROFESSOR RECEIVES FULBRIGHT AWARD TO LECTURE IN LEBANON

Rose-Hulman Assistant Professor of English **Rebecca Dyer** will lecture and do research at Lebanese American University in Beirut during the 2007-08 academic year as a Fulbright Scholar joining approximately 800 U.S. faculty and professionals that are participating in America's flagship international educational exchange program.

Dyer's research emphasizes works that feature public or private memorials erected to honor those who were among the approximately 150,000 who lost their lives during the Lebanese Civil War of 1975-90. She hopes to pinpoint recurring patterns and uncover the commemorative aspects of these texts, aspects that enable literary and filmic narratives to elicit responses similar to those evoked by architectural monuments, photograph displays, and other primarily visual memorials.

Fulbright Scholars are selected by the U.S. Department of State and the J. William Fulbright Foreign Scholarship Board. Scholars are selected on the basis of academic or professional achievement, as well as demonstrated leadership potential in their fields.

Other Rose-Hulman faculty recognized in their academic fields have been:

Caroline Carvill, head of the Department of Humanities & Social Sciences and Professor of American Literature, received the the American Society for Engineering Education (ASEE) Liberal Education Division's Sterling Olmsted Award for "Innovative Contributions to the Liberal Arts within Engineering Education."

Michael Moloney, professor of physics, was honored for his distinguished service to the Indiana Section of the American Association of Physics Teachers. He has served three different terms as president of the Indiana Section and a section member for more than 35 years.

Patricia Carlson, professor of American literature, was a finalist in the Education Contributions to Technology – Individual category for this year's TechPoint Mira Awards, Indiana's most recognized technology awards. She was recognized for developing the Portal Resource for Indiana Science and Mathematics (PRISM), which is providing valuable digital resources for middle school teachers.

Mark Minster, assistant professor of English, had his poem, "Krasnyi Ugol (The Beautiful Corner)," selected as a finalist for the James Hearst Poetry Prize by Poet Laureate Ted Kooser.

Lee Waite, head and professor of applied biology and biomedical engineering, is author of a new textbook, "Applied Biofluids Mechanics," published by McGraw-Hill. He is also co-editor of a second McGraw-Hill publication, "Applied Cell and Molecular Biology for Engineers."

A cover story in a recent issue of CE News magazine by civil engineering professors **Robert Houghtalen** and **Michael Robinson** showcases the hydraulic forces that cause low-head dams to become hazardous situations for river and stream travelers. The article was titled "Dangerous Dams: Removal or Retrofitting Improves Public Safety at Low-Head Dams."

Kay C Dee, associate professor of applied biology and biomedical engineering, is the founding director for Rose-Hulman's Center for Practice and Scholarships of Education, a faculty initiative that strives to maintain a high quality of teaching and learning on campus. The two-year appointment will have Dee serving as an advocate for quality teaching and learning; developing short- and long-term plans for the center' structure, leadership and activities; seeking financial resources to support the center; and assisting in planning and conducting pedagogical research projects.

Cary Laxer, head and professor of computer science and software engineering, was named one of the Triangle Fraternity's Men of the Century for serving as a model of extraordinary Triangle excellence and inspiration to alumni and current members. The Men of the Century award was created to celebrate the 100th anniversary of Triangle, a fraternity that limits its membership to students majoring in engineering, architecture and the sciences.

Jennifer O'Connor, assistant professor of applied biology and biomedical engineering, was selected a 2006-2007 Scholar-in-Residence by the American Society for Microbiology (ASM), the oldest and largest organization devoted to a single life science in the world.

Glen Livesay, associate professor of applied biology and biomedical engineering, was elected a Fellow for the National Effective Teaching Institute of the ASEE's Educational and Research Methods Division. He was also elected to the directing board of ASEE's Design in Engineering Education Division.

Anthropology professors **Scott Clark** and **Heinz Luegenbiehl** are serving as Visiting Fellows for the Applied Ethics Center for Engineering Education at Japan's Kanazawa Institute of Technology.

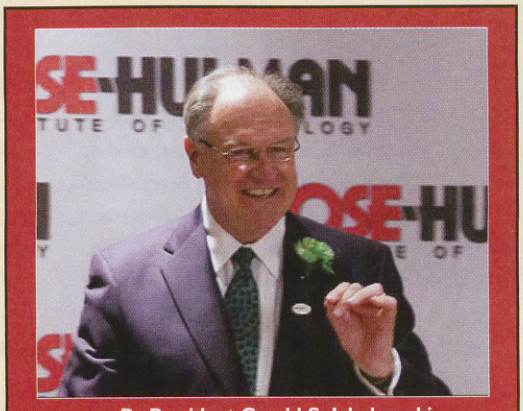
Renat Letfullin, assistant professor of physics and optical engineering, is serving as a Scientific Advisory Board member of Lifeboat Foundation, an organization dedicated to helping humanity survive existential risks and possible misuse of increasingly powerful technologies, including genetic engineering, nanotechnology and robotics. He joins Nobel Laureates Sir Clive W.J. Granger and Wole Soyinka on the board.

Andreas Michel, associate professor of German, continues to serve as president of the Humanities and Technology Association, an interdisciplinary scholarly society that explores interactions of technology, science, the humanities, and the social sciences. He has led the group since 2005.

WE'RE CREATING THE FUTURE AT ROSE-HULMAN

Management guru Peter Drucker has said, "The best way to predict the future is to create it." I am pleased to report the creative process is in full swing at Rose-Hulman. Our future awaits!

As I enter my second year as Rose's 13th president, I am able to share with you that your institution is hard at work developing plans in response to societal needs, including the needs of our future students, the technological professions, and those companies that continue to aggressively seek our graduates.



By President Gerald S. Jakubowski

For more than 130 years, Rose-Hulman has proven its capacity to succeed and to evolve, meeting and leading change in the educational community. Once again, Rose-Hulman must evaluate its options to respond to several external influences, including globalization of the marketplace; new technologies; the need for renewable energy sources such as wind and solar energy; the call for cleaner air and water along with the need to deal with global warming; evolution of engineering content that includes prefixes such as "bio," "nano," "info," and "macro;" more interconnectivity and crossover among traditional engineering disciplines; calls for education reform to attract more people to engineering, science and mathematics education; the increasing importance of lifelong learning; increasing competition from other outstanding educational institutions for students, faculty, staff and resources; and the growing need for well-educated problem-solvers in our society.

At first glance, that list might seem somewhat foreboding, but Rose-Hulman is more than up to the task. During the last six months, we have been crafting a strategic plan to meet those challenges along with others. Students, faculty, staff, academic and administrative leaders, and the Board of Trustees have devoted countless hours to developing the plan.

The planning process has focused on being the best in every aspect of an academic institution. However, being excellent isn't enough. Excellence in the absence of relevance is inconsequential. Rose-Hulman's faculty, staff and graduates must make an impact upon the world. Our plan will maximize that impact by focusing on the leadership traits of the college, faculty, staff, students and alumni.

Fortunately, we have a strong starting point in the planning process. We are able to base our plan upon an educational heritage that continues to graduate individuals who are well-trained and educated, and who emerge quickly within their professions as valuable contributors soon after graduating and entering the work force.

Our alumni are well-rounded, capable individuals who are adept at communicating and at working within team environments. Rose-Hulman alumni understand the impact they have on society both professionally through their careers and personally through contributions to their communities.

Our graduates are special people because they come from a special place. In the last issue of Echoes, I spoke to the characteristics that distinguish Rose-Hulman from its peer engineering, science and mathematics institutions across the country. The six characteristics that set us apart from other similar institutions are exceptional students; top-quality faculty and staff; a strong curriculum; a "hands-on, project-based approach to learning; co-curricular activities; and the spirit of the Rose-Hulman community.

As we plan for the future, we must hold strong to those six characteristics that define this special place we know as Rose-Hulman Institute of Technology.

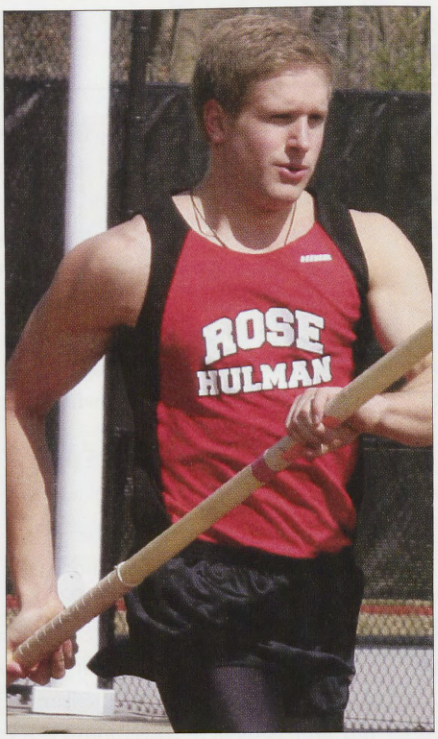
It would be easy to stay where we are, but eventually we would fall victim to our own success by failing to grow and seek new horizons. I find much wisdom in the writing of Lester Thurow, former dean of the MIT Sloan School of Management: "Systems obviously need to be rebuilt when they fail, but they often need to be rebuilt when they succeed. But it is much harder to change if the need for change is generated by success. Success changes the nature of the environment and requires change if success is to continue."

Rose-Hulman must emerge with an overall plan that builds upon its current strengths and capabilities while embracing new practices, pedagogies, and commitments. That approach allows us to meet dramatic and pervasive external forces, challenges, and opportunities that will challenge us to retain our educational leadership.

When completed, this strategic plan will guide Rose-Hulman as it provides our students with the relevant set of skills, values, aptitudes, experiences, and knowledge to realize their complete potential as the problem-solvers and leaders of tomorrow.

Our next step is seeking input from various constituencies, including alumni, business and industrial partners, parents and others. That input is vital to shaping the construction of the plan.

Throughout the summer and early fall months, we will seek conversations with our various constituencies to help complete our plans for the future. When your input is sought, I encourage you to share honestly and openly. We want you to help us create Rose-Hulman's future.



Ryan Schipper

RYAN SCHIPPER CAPTURES ALL-AMERICAN HONORS

Rose-Hulman senior pole vaulter Ryan Schipper capped his career with All-American honors and a third-place finish at the 2007 NCAA Division III Track and Field Outdoor National Championships.

Schipper cleared 15' 9 1/4" on his first attempt, after previously clearing 15' 3 1/2" on his first try. He tied for third-place with two distinguished vaulters, Zach Johnson of Wisconsin-Oshkosh (cleared 17' 2 1/2" earlier in the year) and Matt Novak of Wisconsin-La Crosse (the defending national champion).

"The wind made things a little difficult, and an extra day waiting in the hotel was tough on all the vaulters. I'm real proud of Ryan's accomplishments and this is a great way to cap his career," said Rose-Hulman head coach Larry Cole.

Schipper earned the 34th All-American award in Rose-Hulman's track and field history and became the 35th different student-athlete in Fightin' Engineer athletic history to achieve All-American status.

In addition, Schipper captured the 14th All-American honor in Rose-Hulman's pole vault history that includes two national championships by 1998 graduate Ryan Loftus. Ryan's brother Andrew claimed six All-American honors in his career.

The effort marks Rose-Hulman's highest finishing track and field All-American award since Andrew finished second in the pole vault at the 2003 NCAA Division III Indoor National Championships at DePauw.

The Rose-Hulman athletic department has now combined for 59 All-American awards in its history, counting Schipper's effort. The most recent All-American was third-team football honoree Adam Helmerich earlier this year.

CARLSON, FORSYTH, SCHIPPER WIN RUEL FOX BURNS BLANKETS

The Rose-Hulman athletic department presented Ruel Fox Burns Blankets to seniors Suzy Carlson, Rebekah Forsyth and Ryan Schipper to highlight the 2007 Athletic Honors and Awards Banquet.

The Ruel Fox Burns Blanket, presented to the department's top senior male and female athletes as voted by the coaching staff, has been presented to outstanding Engineer student-athletes since 1968.

Suzy Carlson and Rebekah Forsyth

Carlson graduated with women's basketball career school records in assists (320), three-point accuracy (47.8 percent) and free-throw accuracy (89.0 percent). She ranks third all-time with 1,311 points and 154 steals and is second all-time with 153 three-pointers and 406 free throws made.

Forsyth established women's basketball school records for points (1,779), rebounds (1,062) and steals (185), along with marks for made field goals (663) and free throws (428). She ranks third in school history with 216 assists and 93 blocked shots, and holds the top four individual scoring games in school history.

Schipper earned All-American honors at the NCAA Division III Outdoor Track and Field National Championships in his fourth attempt at a national meet this spring. He finished third overall in the pole vault, after recording placements of ninth, ninth and tenth at title meets in his career.

Rose-Hulman Places 2nd in HCAC Commissioner's Cup

The Rose-Hulman Institute of Technology athletic department earned a strong second-place finish in the 2006-07 Heartland Collegiate Athletic Conference Commissioner's Cup standings.

The Commissioner's Cup is awarded to the institution accumulating the most standings points in the HCAC's 19 league championship events. Anderson University won the 2006-07 Commissioner's Cup with 92.5 points, followed by Rose-Hulman at 92.

Heartland
COLLEGIATE ATHLETIC CONFERENCE

Manchester College placed third in the standings with 90 points, followed by Franklin (86) and Transylvania (82).

"I think it's a testament to the quality of our coaching staff and student-athletes that we came within one-half point of winning the Commissioner's Cup in our first season in the league. We are proud to have accomplished so much as a department this year," said Rose-Hulman Athletic Director Jeff Jenkins.

FRIENDS FORM FOUNDATION FOR SUCCESS AT ROSE-HULMAN

By Robert Bright, Chairman of the Rose-Hulman Institute of Technology Board of Trustees

When Chauncey Rose founded Rose-Hulman Institute of Technology in 1874, he turned to friends and business associates to make his vision a reality. They came together with ideas, energy and financial resources to start what would become one of the nation's leading undergraduate engineering, science and mathematics colleges in the country. That foundation of friendship continues to play a vital role 133 years later.

I would like to extend a big THANK YOU to all the "Friends of Rose-Hulman." Individuals, corporations and foundations are very important members of our family as we educate and build future contributors and leaders in our society. In today's world, no one can do it alone – especially a small, private college. So the willingness of our friends to join with us in providing the best undergraduate education in engineering, science and mathematics is a cornerstone of any success we have.

Obviously we THANK YOU for providing financial support to help the brightest and best students find a way to attend Rose-Hulman. The need for scholarship dollars has never been greater, and we hope your support will continue to help us attract the best high school students from the region, country and world. Also, your economic support of programs and physical assets is a key to our ability to allow students access to the latest trends in our fields of endeavor and prepare them to be productive in your environment as they leave here to meet the needs of the workplace and community and the challenge of realizing their dreams.

We THANK YOU for your willingness to participate in advisory groups at all levels, providing us pertinent information about the trends and needs in your world and giving us the opportunity to be on those leading edges with you. Your input is vital to helping Rose-Hulman maintain an educational experience pertinent to the needs of our society and our students.

We THANK YOU for the opportunities and responsibilities you give our young alumni to contribute to your operations and to your communities. We are extremely proud of their accomplishments because they have an instant impact upon graduation. Their success stems, in part, from the education they received at Rose-Hulman. I am convinced that through their success, the Rose-Hulman "product sells itself." Our audience continues to widen through geographic placement and growing reputation. We have an alumni presence in all 50 states and 38 foreign countries. Our admissions pool is branching out as well. Fifteen years ago, 66 percent of our students came from Indiana. Today that number stands at 42 percent.

We THANK YOU for your willingness to engage with our faculty and staff to provide "real-world" projects and activities which are extremely critical in our practical "hands-on" type curriculum. We are committed to having every undergraduate participate in at least one such opportunity. This enhances the learning process in a way emphasized in the following Chinese proverb:

"Tell me and I'll forget;
Show me and I may remember;
Involve me and I'll understand."

The hands-on nature of our education is a sure path to understanding for our students. Also, we appreciate the interaction our professors have with industry. It is critically important to our success as our faculty bring the real world to the classrooms and labs at 5500 Wabash Avenue.

Most importantly we THANK YOU for just being a "Friend of Rose-Hulman." We hope this provides you a meaningful, positive experience that you will share with others who you think might be able to help us along this continuing journey. The opportunities to share and grow are boundless, and we certainly want to do our part by providing an attitude and environment to work together to create the best young citizens and leaders of the future.

THANK YOU

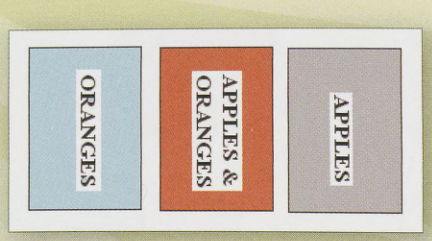
Bailey Challenge

By Professor Emeritus Herb Bailey

Congratulations, you have achieved a modern era record with more than 100 solvers of the previous challenge! On the down side, this represents less than 1% of the number of Echoes sent out each issue. Another bit of data is the number of solvers by decade of graduation. By far the brightest decade must be the 1980's with far more solvers than any of the others. Perhaps the oldsters are tired and the youngsters are too busy climbing the corporate ladder and diapering their children.

Warm-up

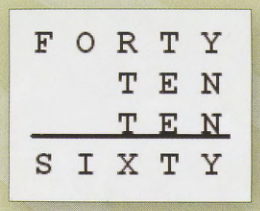
Given three closed containers, one containing all oranges, another containing all apples and the third containing both apples and oranges. Each of the containers has been labeled incorrectly. You are to pick one of the containers and select one piece of fruit therein. Based on the fruit variety that you have selected, you are to move the labels so that the containers are then correctly labeled. How can this be done?



Problem 1

In the addition cryptogram, each letter represents a distinct digit. What digits can be assigned to the letters so that the sum is valid? Half credit for an 'exhaustive' computer search.

Bonus: Prove (convince yourself and me) that there is only one valid solution, or else find another.



Send your solutions to Herb.Bailey@rose-hulman.edu or to Herb Bailey, Math. Dept., Rose-Hulman, 5500 Wabash Ave., Terre Haute IN 47803.

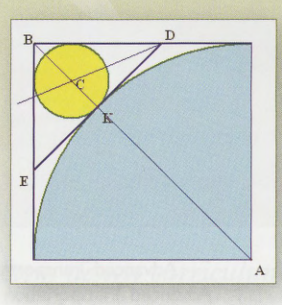
PLEASE include your class year if you are an alum.

Solvers of the Spring problems are listed.

ALUMNI: W. Barrick, 1946; J. Hurt, 1948; B. Rinker, 1951; D. Camp, 1955; C. Cooper, 1956; A. Sutton, 1956; B. Waggener, 1957; H. Brown, 1957; D. Bailey, 1959; C. Sechrest, 1960; R. Ireland, 1961; J. Tindale, 1961; J. Snyder, 1962; M. Taylor, 1962; C. McCoy, 1962; B. Lovell, 1963; J. Born, 1970; D. Jordan, 1971; W. Pelz, 1971; D. Wilman, 1972; D. Radecki, 1972; R. Collins, 1973; F. Simpson, 1973; M. Bailey, 1976; J. Schroeder, 1976; G. Tucker, 1976; G. Matthews, 1977; D. Zona, 1977; M. Denzin, 1979; J. Farrell, 1981; S. Daniel, 1982; J. Whitaker, 1982; D. Elmer, 1983; S. Hall, 1983; B. Wade, 1983; J. McGrew, 1983; D. Spaulding, 1983; J. Marum, 1983; W. Flight, 1984; M. Deuitch, 1984; V. Hasler, 1984; J. Clark, 1985; G. Sharp, 1985; M. Adams, 1985; D. Price, 1986; R. Davidson, 1986; M. Carter, 1986; L. Cramer, 1986; D. Johnsom, 1987; M. Lancaster, 1987; P. Gottfried, 1987; M. Nigrovic, 1987; S. Sarmu, 1988; R. Meckauskas, 1988; J. DeBruler, 1988; D. Kneip, 1989; C. Abdnour, 1989; B. Burger, 1991; D. Hector, 1992; D. Sowder, 1993; G. Simons, 1993; R. Antenini, 1993; W. Mounts, 1993; T. Walker, 1994; F. Thomas, 1994; P. Stoltz, 1995; S. Cao, 1995; M. Ley, 1997; C.Tracy, 1997; M. Pilcher, 1998; J. Boozer, 1999; J. Mathison, 1999; B. Monacelli, 2000; B. Creel, 2000; A. Feyen, 2002; G. Dasbach, 2002; B. Richardson, 2002; Sean Taylor, 2003; M. Mergy, 2004; S. Galler, 2005; T. Perme, 2006; E. Reyes, 2006; J. Przybylinsky, 2006; A. Johnson, 2011; H. Poling, 2011;

FRIENDS: D. Templeton, W. Orr, D. Brown, J. Durlacher, J. Reyes, J. Marks, B. Pipp, Steve Taylor, N. Walker, L. Gaintner, C. Woods, M. Weil, C. Busenburg, M. Rosene, J. Segal, S. Gossert, J. Ley, H. Craft, K. Sosansky, S. Friday, D. Friday, C. Linden, H. Cao, P. Stallman

Solution for previous issue

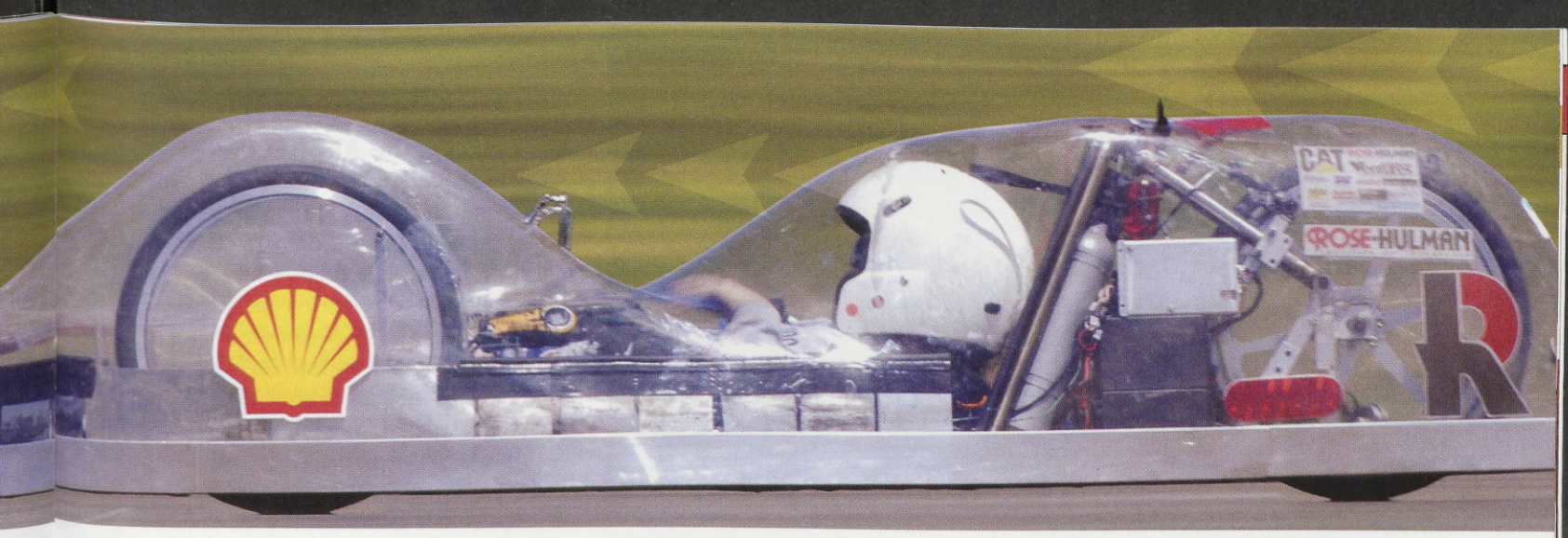


One way to solve the bonus problems of the previous issue relies on the fact that the center of the circle inscribed a triangle is on the bisectors of its vertex angles. (Can you prove this?) In the figure, A is the center of the big circle, B is a corner of the square, K is the intersection of AB and the big circle, D and E are points on the sides of the square such that DE is tangent to the big circle at K. The bisector of angle BDE intersects the bisector BK of angle EBD at the center C of the small circle inscribed in triangle EBD. Since $DK = BK = \sqrt{2}-1$, then $r = (\sqrt{2}-1)\tan(\pi/8) \cong 0.171$.

advanced transportation initiative

Advanced Transportation Group: Student projects in Rose-Hulman's Advanced Transportation initiative showcase their vehicles. The initiative includes the Challenge X team, efficient vehicles team, human-powered vehicle team, Team Rose Motorsports and Design/Build/Fly team.

Mechanical engineering students Steven Schmitz (left) and Steven Vande Lune work on completing the tail section of Rose-Hulman's first entry in the American Institute of Aeronautics and Astronautics' undergraduate Design/Build/Fly competition.



TEAMS EARN TOP HONORS, KEEP STUDENTS & FACULTY ON CUTTING EDGE

BY DALE LONG

Rose-Hulman Institute of Technology students showcased their design and teamwork skills, along with their competitiveness and ingenuity, to earn team and individual honors at national engineering competitions that concluded the 2006-07 academic year. Successes include:

The Challenge X team brought home top honors for community outreach and technical merit after concluding the third year of the Challenge X: Crossover to Sustainable Mobility, North America's premier college-level automotive engineering competition. Rose-Hulman was one of only 17 colleges selected to participate in the event, organized by General Motors Corp. and the U.S. Department of Energy.

The Rose-Hulman Efficient Vehicles team won the collegiate division of the Society of Automotive Engineers' annual Supermileage competition, achieving 1,541 miles per gallon in fuel efficiency to top 30 North American colleges and universities. Earlier, the team placed second in the Shell Eco-Marathon Americas Challenge at the California Speedway (Fontana, Calif.), getting 1,637 mpg with another motor configuration.

The Human Powered Vehicle team pedaled to a second-place finish out of 23 teams in the American Society of Mechanical Engineers' 2007 East Coast championships in Ocala, Fla. The team's sleek, one-person vehicle sped up to 36 mph in the men's sprint race while going 26 mph in the female event.

Rose-Hulman's new American Institute of Aeronautics and Astronautics student organization designed and assembled its first unmanned, electric-powered, radiocontrolled aircraft for the AIAA's undergraduate Desig/Build/Fly competition in Tucson, Ariz.

All four of these teams joined Team Rose Motorsports, a competitive drag racing club, as part of Rose-Hulman's Advanced Transportation System initiative, which strives to give students valuable educational experiences through hands-on classroom and extracurricular programs. This initiative is supported by several technology-driven company and industry sponsors, and individual donors.

Several key components of this year's student competition teams were developed through classroom and independent study design projects, and teams shared technology and design ideas to give them cutting-edge advantages in their competitions.

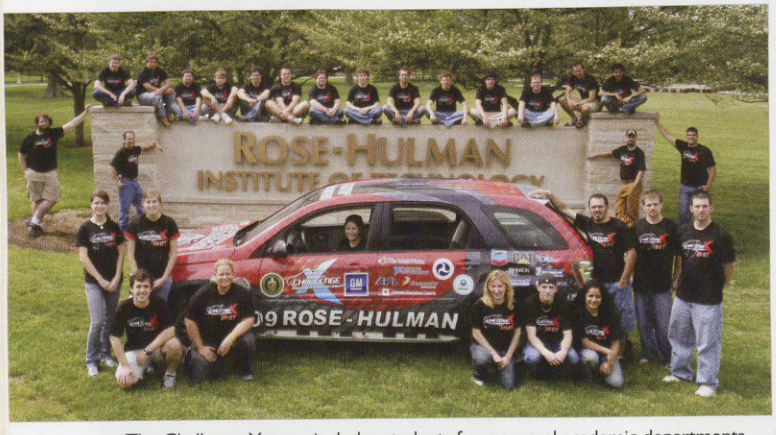
A new model-based system design curriculum is being developed in four key educational areas: software, processor, integrated processor system and integrated subsystems. The curriculum teaches students how to develop a mathematical plant model and system controller using Simulink and Stateflow software, according to Zac Chambers, associate professor of mechanical engineering. He works with Marc Herniter, associate professor of mechanical engineering, on developing the curriculum.

Turn the page for more insight on each student project area in the Advanced Transportation System initative:

STUDENTS MEETING THE 'CHALLENGE'

More than 150 students spent the past three years developing a biodiesel hybrid electric Chevrolet Equniox — from an original gasoline sport utility vehicle — to decrease fuel consumption and emissions production while maintaining stock vehicle performance through the Challenge X competition. The challenge followed General Motors' real-world Global Vehicle Development Process to design, develop and integrate advanced technology solutions.

"Challenge X is different from other competitions because GM has offered students unprecedented access to the world of vehicle design," states Chambers, one of the team's two faculty advisors. "Students have taken an industry-standard design approach to deliver a production-ready vehicle on an accelerated timetable."



The Challenge X team includes students from several academic departments.

The first year of the competition (ending in 2005) focused on the vehicle design. Students developed computer simulations to compare the various powertrain options. Once the teams successfully completed the vehicle design process, at the end of year one, they received the crossover sport utility vehicle.

Years two and three (2006-07) focused on turning the design into reality. In May of 2006, the team presented a proof-of-concept vehicle which demonstrated clearly that the team could fabricate and control the complex powertrain architecture. This year, aspects in the proof-of-concept were extended into a production-ready vehicle.

Rose-Hulman's SUV was the only vehicle to utilize a custom power split powertrain, similar to the system used in the Toyota Prius, to meet performance criteria. The highly efficient diesel engine operates on biodiesel fuels, such as B20 (20 percent biodiesel), representing near-term approaches to improved efficiency.

Comments from Challenge X judges included "Rose-Hulman has developed a real program in hybrid vehicles" and "I can't believe you did this in eight months."

Team Mentor/Rose-Hulman Alumnus Art McGrew (Mech. Eng., '81) of Allison Electric Drives added: "I've been mentoring this team for three years, and I am amazed at what these students have done in such a short period. They have repeated the requirements for the second and third years in about eight months. I couldn't be happier."

Students have been creative and innovative to overcome challenges faced by the use of alternative fuels, according to Herniter, the other co-faculty advisor.

"The competition has uncovered exciting new technologies for our students that will further the world of automotive design and help us cross over to sustainable mobility," he said.

Electrical Integration Systems Team Leader Joseph "Rusty" Berg, a 2007 graduate, stated, "The practical experiences have been enormous. There are a lot of things you learn while turning a wrench or trying to put everything back together again. The Challenge X project has been the capstone of my college education — putting everything together in a comprehensive package."

Rose-Hulman received the Outstanding Outreach Award and The MathWorks' Crossover To Model-Based Design Award, while placing second for Freescale Semiconductor's Silicon On The Move Award and third for National Instruments' Most Innovative Use of Graphical System Design. Team member Kristina Lawyer, a senior mechanical engineering major, earned the Incoming Women In Engineering Award from the Lyn St. James Foundation — the second consecutive year that a Rose-Hulman student has been recognized. The team received $4,750 from Challenge X sponsors for its award-winning efforts.

Challenge X has been extended to a fourth year, giving teams the opportunity to focus on customer acceptability, road reliability and the extended durability of their advanced propulsion systems.

EFFICIENT VEHICLE TEAM GETS 1,637 MPG AT SHELL ECO-MARATHON

The efficient vehicles team lived up to its name this year, topping 1,500 mpg for top finishes in two national competitions. The SAE championship was the first event victory in four years of fuel-efficient vehicle contests, and the 1,637 mpg achieved at the Shell Eco-Marathon Americas Challenge was the best-ever competition performance.

The competitions provide students with a challenging design project that involves the development and construction of a fuel-efficient vehicle. Vehicles are powered by a small one-cylinder, four-cycle engine provided by Briggs & Stratton, or a Honda 25cc taken from a weed whacker. Significant engine modifications are allowed. Rose-Hulman's team added a head piston and camshaft from a Honda XR50 engine, along with a specially designed electric fuel-injection system.

"The exciting aspect of designing an efficient vehicle is squeezing an extra 100 miles out of a drop of gasoline," stated Elliot Goodman, a 2007 mechanical engineering graduate.

Rose-Hulman's three-wheeled vehicle had a lightweight body made from carbon fiber, with honeycombed Nomex core and aluminum framing, covered with a clear PETG body shell. The vehicle was eight feet and four inches long, 26 inches wide and travels one and one-fourth inches off the ground. The driver lies flat on the back and steers the car by adjusting independent front wheel mechanisms. The vehicle is driven by a single rear wheel attached to the motor.

"This year, the car was really reliable so that, as drivers, we were able to concentrate on getting the smoothest route around the track," said Danielle Steinke, a senior civil engineering major who served as one of four drivers this year.

The team, which included 20 students, concluded the year's competition schedule in early July at the Shell Eco-Marathon UK Challenge near Corby, England.

TEAM PUTS PEDAL TO METAL IN COMPETITIONS

In only its second year, the human-powered race team has risen to become a national contender as quickly as its vehicle has raced around the track. Besides its second-place finish in the ASME regional, the team was the only college team that participated in the Nissan One Hour Challenge during Spring Break in Casa Grande, Ariz.

Human-powered vehicles are recumbent bikes with aerodynamic shells. The bikes can go about 45 mph. During competitions, teams are judged in sprints, endurance tests, design reports and oral presentations.

Rose-Hulman earned a perfect score in the design and innovation category of the ASME competition, took second place in the endurance and men's sprint races, and was third in the women's sprint race.

"We had a better overall performance this year because of experience from last year," admitted team project manager Tommy Roberts, a senior mechanical engineering major. "We have made big strides during the first two years of this project, and we're already looking ahead to next year."

Second-year improvements included the installation of a lightweight composite body shell, which improved aerodynamics; familiarity with driving the vehicle, through extensive testing; and experience in vehicle development. The single-rider, two-wheeled vehicle is 9.8 feet long, 23 inches wide and is four inches off the pavement. The driver is almost parallel to the ground while driving. A mechanical landing gear, which helped stabilize the vehicle during turns, earned rave reviews from judges and members of competing teams.

"Our vehicle was more stable this year and that improved our performance," stated lead male rider Danny Sing, a senior mechanical engineering major.

AVIATION TEAM GETS OFF THE GROUND

American Institute of Aeronautics and Astronautics club's Design/Build/Fly project got off the ground — literally — this year. The 15-student team designed and demonstrated the flight capabilities of an unmanned, electric-powered, radio-controlled aircraft to meet a unique mission profile under affordable manufacturing requirements.

The contest, sponsored by Raytheon Missile Systems, provides real-world aircraft design experience for engineering students by giving the opportunity to validate their analytic studies, according to faculty advisor Calvin Lui, assistant professor of mechanical engineering.

1. In The Middle Of Action: Matt Lipkowitz, engines/diesel calibration leader of Rose-Hulman's Challenge X team, helps make a critical adjustment to the vehicle during the reassembly process. **2.** Students work on a Rose-Hulman aircraft as part of the Design/Build/Fly project.

Created from scratch materials in approximately five months, Rose-Hulman's aircraft had a seven-foot wide wing span, had 17 pounds gross take-off weight and carried two payloads: a mock surveillance system (five pounds) and a mock air sampling system (three pounds). The aircraft had to be assembled and ready to fly within five minutes.

"We're entering a world where the top teams have been competing for nearly 10 years and have a lot of experience working in the area of aerodynamics and astronautics," said team co-leader Steven Schmitz, a 2007 mechanical engineering graduate. "It's a difficult design challenge. We certainly learned a lot during the first year."

The team experienced mechanical difficulties at the competition and failed to complete a successful flying attempt. Also, the team learned that this year's design challenge favored small, light aircraft. Massachusetts Institute of Technology's winning two-foot span biplane weighed less than two pounds.

"We invented some new, creative design elements that other teams had not thought about and came away with a lot of ideas that the team hopes to incorporate in the future. We're quick learners, and I suspect that we'll be more competitive in the near future," said team co-leader Michael Richardson, a 2007 mechanical engineering graduate.

TEAM ROSE MOTORSPORTS OFF TO THE RACES

Rose-Hulman's oldest organization for racing enthusiasts and weekend speed demons, Team Rose Motorsports, helps students develop and expand their passion for motorsports while applying engineering skills learned in the classroom. The club has continued to evolve from its roots as Rose-Hulman's Racing Club in the 1970s and 1980s.

Three vehicles are used to compete in area Sports Car Club of America and National Hot Rod Association events. The reconditioned racers are a 1985 Mazda RX-7 GSL-SE, a 1984 Ford Mustang GT and a dragster, with a 5.7 liter (350 cubic inch) Chevy small block engine. Team members also bring their own vehicles to compete in events.

Off the track, team members attended the SAE Conference on Motorsports Engineering in Dearborn, Mich.

FUNDRAISING INFORMATION

The Advanced Transportation System Fund provides financial and gift-in-kind support to all of the initiative's student projects. Individual and corporate donations can be made by contacting Richard Boyce, director of corporate and foundation relations, at (812) 877-8443 or Richard.Boyce@rose-hulman.edu.

WEB RESOURCES

Learn more about each of Rose-Hulman's student projects teams through the following Web sites:

Challenge X Team	www.rose-hulman.edu/challengex/
Efficient Vehicles Team	www.rose-hulman.edu/rhev/index.html
Human Powered Vehicle Team	www.rose-hulman.edu/hpv/
Team Rose Motorsports	www.rose-hulman.edu/Users/groups/TeamRose/HTML/index.html

"Never before has the mission of this college been more important to our students, to Terre Haute, to our state and to our nation than it is today and will be tomorrow."

President Gerald S. Jakubowski, Inaugural Address, April 27, 2007

BY DAVID PIKER

The increasing national reputation Rose-Hulman Institute of Technology has earned the past two decades has created expectations of the college to achieve a higher level of educational leadership, overall excellence and increased impact on the world, Rose-Hulman President Gerald Jakubowski said during his Inaugural Address.

Jakubowski urged the Rose-Hulman community to "dream and to dream big. We are not limited by our ideas, we are only limited by time and resources," he told a crowd of 1,100 who attended his official installation as the 13th president of Rose-Hulman. Among those attending the ceremony were 32 delegates representing colleges and universities ranging from Harvard University in Boston to Loyola Marymount University in Los Angeles. Speakers included representatives from national education organizations; Rose-Hulman faculty, staff, students and alumni; as well as members of the Terre Haute community. Former Rose-Hulman President Samuel Hulbert was among the honored guests and spoke at the ceremony.

Jakubowski dedicated his inauguration to his deceased parents, Chester and Pauline. He noted that he was the first person in his family to attend college after being urged throughout his formative years by his parents to become an engineer.

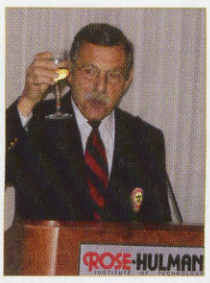
The installation ceremony was the highlight of a three-day schedule of events to mark the installation of a new Rose-Hulman president and celebrate the college's past and current successes as well as the people who were leaders in achieving those successes. The inauguration theme was "Continuing Our Legacy of Excellence."

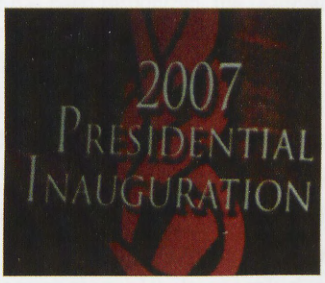
"Rose-Hulman has never been shy at trying new things," he noted. "Without change and continued evolution, Rose-Hulman would not be the outstanding educational institution it is today," Jakubowski told the audience gathered in the Sports and Recreation Center.

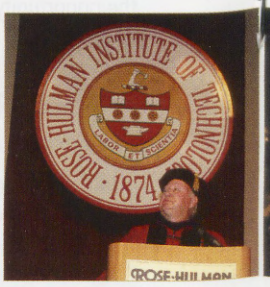
He said the future of Rose-Hulman will be guided by a strategic plan that is near completion. "It will be a dynamic plan that will guide us to the 140th anniversary of this institution in 2014. Excellence, leadership and impact must be at the very heart of our strategic plan," Jakubowski emphasized during his 30-minute speech.

"The technical and scientific talents of students like those in our audience today, and those we will educate in the future, will be critical to the future quality of life in America including our economic strength, prosperity, health, security and our role as a global leader," he remarked.

2007 PRESIDENTIAL INAUGURATION
ROSE-HULMAN INSTITUTE OF TECHNOLOGY
Continuing our legacy of excellence







1. Alumni Wesley Bolsen, Kelly Kozdras and Bryce Clark discuss "Science, Technology and Social Needs" during the Inauguration Symposium. **2.** William Fenoglio, vice chair of the Board of Trustees, toasts President Gerald Jakubowski during a faculty/staff dinner. **3.** The inauguration logo glows on the Hatfield Hall stage during the inauguration symposium. **4.** The Jakubowski family – from left, wife Lynn, son Jerry, daughter-in-law Kristen, and daughter Jami **5.** Former President Samuel F. Hulbert addresses the inauguration crowd.

He said Rose-Hulman should adapt its educational programs to changes occurring in the engineering and science professions. Trends that include sustainable, renewable sources; continued globalization; and broader career options for graduates.

Jakubowski said Rose-Hulman has an obligation to continue "our legacy of excellence created by past contributions made by many others during the history of this college." He cited Chauncey Rose, the Hulman family, Carl Mees, Herman Moench and Samuel F. Hulbert to whom he directed special praise.

"Sam, your devotion and leadership to this institution will forever be remembered for the incredible impact you had on making Rose-Hulman what it is today, and the extraordinary influence you continue to have on Rose-Hulman and its people," Jakubowski stated.

Jakubowski said Rose-Hulman must give serious thoughts to its role as a leader. "In many aspects, we have been a leader in engineering and science education, and we are seen as an educational leader by other institutions. However, our leadership role has to expand and grow. Leadership should be at the core of everything we strive to accomplish," he emphasized.

A post-inauguration reception packed Hulbert Arena.

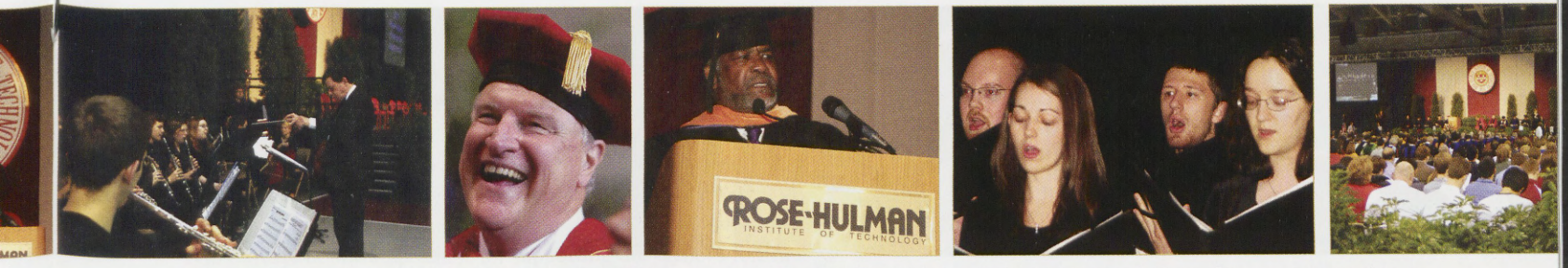
He cited the leadership of alumni, faculty, staff and students. Jakubowski singled out alumni who have been honored at the White House as some of the nation's most important engineers or scientists, and young alumni who are working on the latest missions to explore Mars. Faculty and staff were praised for not only being exceptional professionals, but for their deep concern for the well being of Rose-Hulman students.

He described as "amazing" the talents of Rose-Hulman students that go beyond their academic abilities to the excellent talents they exhibit as singers, actors and actresses, and their concern for helping others in this country and internationally.

Jakubowski concluded his 30-minute inaugural speech by saying, "Together we have much to do. Together we have many dreams to achieve. If we think big, big things will happen.

"I'm very optimistic about the future of this institution. We have an exceptional team here at Rose-Hulman. It's my privilege and honor to be a part of this team and this community."

A video of the entire 90-minute installation ceremony and photos highlighting the event can be accessed at Rose-Hulman.edu/president



1. The Rose-Hulman Concert Band provide music for the installation ceremony. **2.** President Gerald Jakubowski at the inauguration **3.** George Peterson, executive director of ABET, addresses attendees at the ceremony. **4.** Members of the Rose-Hulman Chorus helped provide music for the ceremony. **5.** The Sports and Recreation became a special place when decorated for the inauguration.

Time to reflect on Rose-Hulman's rich history

A three-day Presidential Inauguration schedule of events provided activities for faculty, staff, students, alumni and the Terre Haute community.

President Gerald Jakubowski noted in his Inaugural Address that the inauguration events were "not a celebration about a single individual, but a time to reflect on the college's rich history, to enjoy our current successes and as an inspiring, exciting opportunity to further discuss Rose-Hulman's future."

Events included a day-long Inauguration Symposium featuring nationally known educator George Peterson, executive director of ABET, and best-selling author and technologist Steven Johnson. ABET is the accreditor for college and university programs in applied science, computing, engineering and technology. Johnson has been described by Newsweek as being one of the 50 people who matter most on the Internet. His presentation was sponsored by the Department of Humanities and Social Sciences with funding from the Elsie Pawley Fund.

Jeff Ready and ('96) Marcie Morrison ('99)

Greg Holler ('79) and Roseanne Forgione ('00)

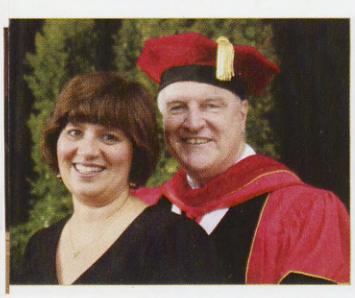
The symposium also included three panel discussions featuring 10 Rose-Hulman alumni. Panel discussion topics included "Entrepreneurial Skills and Technical Careers," "Careers in the Global Marketplace," and "Science, Technology and Social Needs — Responsibilities and Rewards."

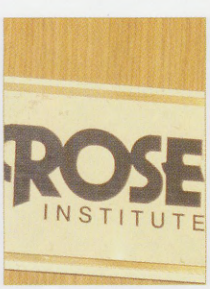
Faculty and staff were guests at an inauguration dinner the night before President Jakubowski's official installation ceremony.

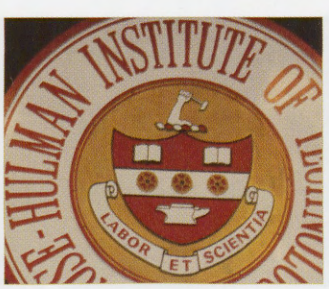
Students enjoyed a wonderful menu during a reception prior to a show by engineer-turned-comedian Don McMillan.

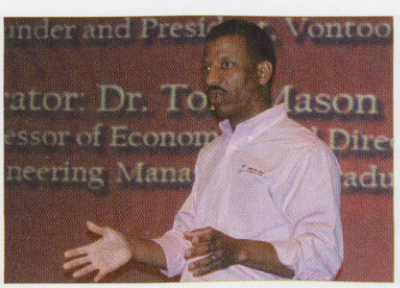
Delegates from other colleges and universities as well as trustees and other special guests attended a dinner to honor President Jakubowski and his wife, Lynn, immediately after the installation ceremony.

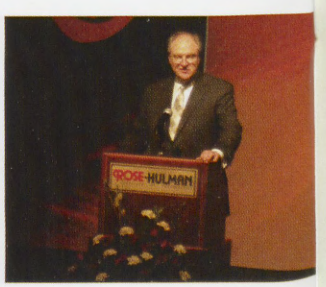
A 16-member Inauguration Planning Committee consisting of alumni, faculty, staff, students and community representatives was responsible for creating and coordinating the events.











1. Lynn and Jerry Jakubowski **2.** Alumnus Damon Richards addresses the symposium about the topic of entrepreneurial skills. **3.** President Jakubowski opens the inauguration symposium with welcoming remarks.

ALUMNUS ED ROBACK OVERSEES INFORMATION TECHNOLOGY AT TREASURY DEPARTMENT

BY DAVID PIKER

As a student at Rose-Hulman Institute of Technology, Ed Roback ('84) decided that he wanted to combine his interests in computer science and mathematics with a career in government service. More than 20 years later, Roback is fulfilling that goal in an information technology management role that is vital to our nation's cyber security.

Roback now provides leadership in all areas of information technology management and security for the U.S. Department of the Treasury. In January, Roback was named Acting Chief Information Officer. His management responsibilities are extensive and include a $3 billion information technology (IT) portfolio. Roback is responsible for capital planning, information management, enterprise architecture, headquarters IT support, the department-wide telecommunications system and cyber security.

Ed Roback in front of the U.S. Department of Treasury in Washington D.C.

Roback is also involved in the E-Government program to leverage IT solutions to modernize and web-enable government services to increase government response to citizens and business, and enhance government-wide efficiency and effectiveness.

With such an extensive list of responsibilities, Roback says his day-to-day schedule varies, although a few areas are always given priority. "Security, privacy, investment management, and headquarters IT support tend to be at the top of the list," says Roback, who earned his bachelor's degree in mathematical economics and computer science.

Roback's introduction to government service came at the end of his junior year at Rose-Hulman during a summer internship with the U.S. Department of State's information systems office. After earning a master's degree in political science from the University of Illinois in 1985, Roback returned to the Department of State as a Presidential Management Intern.

"I began my Federal career by accepting an offer in the Department of State's information systems security office, which was still a rather novel idea at the time," Roback recalls."In many ways it was an ideal blend to use my computer science education from Rose in the arena of international affairs in government \service. While there I wrote computer security policy for the department and conducted computer security assessments overseas," said Roback.

After four years at the State Department, Roback joined the staff of the Commerce Department's National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland. Roback would become chief of the Computer Security Division at NIST where he was responsible for supporting the agency's role in protecting sensitive Federal information and promoting security in commercial information technology products.

During his tenure at NIST, Roback also worked to promote security in commercial information products which resulted in improvements to encryption standards that strengthened cyber security for ATM banking transactions and improved security for information on laptop computers. Roback was part of a team that was presented with a Gold Medal from the Secretary of Commerce for creating of the widely acclaimed Advanced Encryption Standard to enhance the security of E-Commerce and E-Government applications.

In 2005, he joined the Department of the Treasury as Associate Chief Information Officer for cyber security. In this capacity, Roback served in an IT leadership position responsible for formulating security policy and procedures for protecting classified and unclassified systems, addressing the security challenges of the President's Management Agenda, promoting cyber security training and awareness, managing the classified IT security program, supporting cyber critical infrastructure protection, and operating the Treasury Computer Security Incident Response Center.

Roback said rapid changes in technology as well as its ever-increasing complexity create daily challenges to his responsibilities in the cyber security area. "With security it's not only important that the security in an IT product operate as intended, but also that the product not operate in unexpected ways that could harm security," Roback advised.

"One can readily see the challenge of this by looking at operating systems which have lines of code. How can one possibly know that it won't do something unexpected?" he asked. "That is still a great challenge and, in many cases, we just have to rely on past experience in use of the product to help assess its security risk."

Roback says two of the lasting benefits of his Rose-Hulman education are the value of effective communication and the need to be a lifelong learner. "One of the key things I learned at Rose was the importance of clear writing and being able to present information, findings and recommendations in a sound, logical and persuasive manner. I also learned about the need to continually stay on top of developments in one's field. This was something professors at Rose sought to accomplish and demonstrated by example," he noted.

JOHN LUEKEN

Directs construction for McDonald's Restaurants

The famed Golden Arches aren't added to McDonald's restaurants across America before the involvement of John Lueken (Civil Eng., '87), director of construction for the nation's largest chain of quick-service restaurants.

Since 2005, Lueken has led the U.S. Construction Department and helped establish profitability strategies for over 13,000 current locations, including assisting with the redesigning of restaurants for the introduction of the "Forever Young" brand — the first major redesign since the 1970s. He leads the development and implementation of construction technologies for 22 regional development teams including costing systems and web-based project management tools. He also assists in setting global procurement strategies in his leadership of the construction purchasing group; leads corporate Americans with Disabilities Act efforts; and serves as corporate counterpart for the Ronald McDonald House Charities initiative, Asian Business Vision and Hispanic Business Vision Place Teams.

Lueken's efforts haven't gone unnoticed. He has earned six company awards in his 13 years with McDonald's USA, including the "Circle of Excellence Award" in 2005 and the President's Award and U.S. Regional Construction Manager of the Year, both in 2003. He worked as an area and regional construction manager for the Phoenix and Southern California regional offices before joining the corporate leadership team.

Lueken's engineering career started as Projects Department Manager for MasterBrand Cabinets, from 1987-1994.

"I love to build things," said Lueken, a native of Ferdinand, Ind. "I am thrilled to have seen so many projects start with a barren piece of real estate and experience the transformation into a functioning development."

Career Achievement AWARDS

DARIN MOODY

Eli Lilly leader stresses importance of communication

Rose-Hulman English Professor Richard House couldn't have been happier when Darin Moody (Ch.E., '87) told House's students that one of the most important skills they would need as engineers or scientists was the ability to be an effective communicator. "Poor decisions can result from poor communications," Moody told students in House's technical communications class.

Whether it's the need to communicate effectively to comply with government regulations or to teach employees complicated procedures for the production of pharmaceuticals, Moody's message was clear — writing and speaking effectively is vital to having a successful career.

Moody knows from experiences during his 20-year career with Eli Lilly and Co. that communications is an important characteristic of being a leader. "Today's leader must be effective working and communicating in a team environment," said Moody, who is executive director of Six Sigma, Global Manufacturing and Quality at Eli Lilly. "The pace of technical change is staggering. The ability to communicate change to others so they can adapt to it is critical," he stated.

Moody's career began as a process engineer contributing to the design, construction and start-up of manufacturing facilities in Indianapolis, Clinton and Lafayette in Indiana. He moved to assignments in environmental controls, manager of bulk manufacturing in Indianapolis and biochemical manufacturing. Moody was promoted to general manager of the Lilly production facility in Liverpool, England in 1999. Two years later, he returned to Indianapolis in another site leadership role before becoming executive director of global process and maintenance engineering where he was responsible for engineeering and maintenance activities at Lilly's facilities worldwide.

He's now communicating with over 11,000 employees worldwide in his responsibilities which are focused on implementing the Six Sigma approach to improving operational execution in the areas of manufacturing and quality. Lilly has honored Moody for being a successful coach and mentor to numerous individuals in the organization and for executing a key strategic initiative in the bulk insulin manufacturing division. Well-deserved recognition that illustrates his effectiveness as a communicator.

MICHAEL RADOMSKY

At the forefront of pharmaceutical, biotechnology products

Michael Radomsky (Chem. Eng., '87) has been at the forefront in the development and manufacturing of a wide range of new pharmaceutical and biotechnology products for large and small companies. It has been an exciting and rewarding ride.

"Research and development may be a tedious process, but the discovery of how things work and interact is why I became an engineer. It still fascinates me," he says.

Since 2004, Radomsky has served as associate director of pharmaceutical sciences for Theravance, a 10 year-old pharmaceutical company based in South San Francisco that develops market-leading medicines. He currently focuses on the final stages of Federal Drug Administration product approval for telavancin, a novel treatment for resistant Gram-positive infections. He has had primary responsibilities for the preparation, review and editing of a range of regulatory documents.

Radomsky's technical expertise also includes the chemistry, manufacturing and controls for pharmaceutical products, along with current Good Manufacturing Practices (cGMP). His name is on four patents, and he has authored and co-authored several publications and made presentations at scientific conferences.

After graduating from Rose-Hulman, Radomsky earned a Ph.D. in chemical engineering from Johns Hopkins University in 1991. He has worked for Syntex, Orquest, Epicyte Pharmaceutical and Arc Engineering -- all based in California – before joining Theravance.

"Twenty years ago, I thought I would become a college professor. However, in graduate school, I fell in love with research. Right now, research and helping develop new pharmaceutical discoveries is where I can make a difference."

GREG SMITH

Revving up strategies for the future of Harley-Davidson Motor Co.

The Harley-Davidson brand is one of the best known in the world. Its customers are well known for their loyalty to Harley-Davidson products. So, how do you improve upon the products that have such a strong brand and market share? That's one of the questions Greg Smith (E.E., '87) ponders each day. As director of operations strategy for Harley-Davidson Motor Co., Smith is creating the strategies to guide future decisions about manufacturing, assembly and supply chain investments.

Smith describes his work using the words cross functional, flexibility, corporate circles and vision. "The company must be adaptive and responsive to customer needs," says the Illinois native, who was president of the student body during his undergraduate days and a member of Lambda Chi Alpha.

"We have to plan for operations flexibility," he stated. "As an example, how flexible must our manufacturing be to meet customer demands?" Smith asks.

Smith's career has taken him from manufacturing management posts at GE Aerospace and GE Aircraft Engines to a return to the classroom when he earned master's degrees from MIT in management and electrical engineering. After a three-year stint at Motorola, where he contributed to the launch of cell phone products in the European market, Smith was hired by Harley-Davidson in 1996 to provide leadership for supply/materials purchasing that amounted to $1.4 billion annually.

A move to powertrain program director gave him the opportunity to impact product development. He led a cross-functional team that launched the 2006 and 2007 Big Twin powertrains, which included the Twin Cam 96™ engine with the Six-Speed Cruise Drive™ transmision. He managed the creation of new processes to introduce the product at considerable savings.

It's not easy trying to determine future corporate strategy. Smith advises to stay customer focused. "While developing strategy, you've got a lot of information to consider. But while doing that, you've got to keep close to the customer," says Smith.

Rose-Hulman alumni who were instrumental in predicting a North Korean missile launch are (l-r) Rebecca Levinson, Glenn Gersch, Mike Engle, Jared Augsburger, Alan Sobecki and Autumn Faith. Their work earned them the Commander's Award for Merit in Large Team Analysis.

Alumni team key in predicting North Korean ballistic missile launch

Efforts earn the Commander's Award for Merit in Large Team Analysis

BY GAIL HAYES

On July 4, 2006, as Americans grilled burgers and made ready the bug spray and pyrotechnics for the evening's festivities, North Korea set off a test launch of six missiles, including a long-range Taepodong-2 (TD-2), which failed shortly after takeoff and fell harmlessly into the Sea of Japan. While North Korea insisted it had a right to stage the launch, the rest of the world believed it was in defiance of international warnings and numerous expressions of concern.

Was the United States surprised by the Independence Day test launch? Not in the least, thanks to a team of engineers at the National Air & Space Intelligence Center (NASIC) at Wright-Patterson Air Force Base near Dayton, Ohio. These professionals, under the direction of Rose-Hulman alumnus and Division Chief Michael Engle ('86), tirelessly scrutinized the North Korean activities for months preceding the event, providing Washington with intelligence reports predicting the test.

The team included five Rose-Hulman alumni, in addition to Engle, each bringing his or her own specialty to the tremendous task at hand. They are Glenn Gersch ('94), Alan Sobecki ('97), Autumn Faith ('03), Rebecca Levinson ('05), and Jared Augsburger ('05). The Ballistic Missile Division is a group of 60 scientists and engineers within NASIC, a 2,200-person organization at the base.

Sobecki was the Division's lead analyst for the launches and briefed White House senior staff members a number of times during the months prior to the launch. Sobecki remembers sleeping on a couch in the Division Office as he spent 26 straight hours at work prior to the test launch. "It was physically and mentally draining," he recalls. "But when you hear your words being echoed by the Secretary of Defense and you see and hear snippets and phrases of the work you've prepared, that was most satisfying." Sobecki also received a personal note from a four-star general whom he had briefed, commending him for NASIC's outstanding work.

The pre-launch work performed by the Ballistic Missile Division team was unprecedented and allowed the president and vice president to make decisions about our national posture both pre- and post-launch. The work went from Wright-Patterson "straight to the top," Engle was told by one of the White House senior staff members.

Because of their groundbreaking work, the NASIC team led a number of post-launch presentations to senior-level government officials. Engle was the face of the organization in front of the Senate Select Committee on Intelligence. Nine days after the event, the senators saw a movie created by the NASIC team to explain the details of the event. Judging from the senators' words, they were spellbound. In addition to explaining the events to the Washington officials, the NASIC team also provided much of the information that was released to the press.

Normally the Ballistic Missile Division works 6 a.m. to 6 p.m. Starting mid-June 2006, however, they ran a 24-hour-a-day operation with two to three shifts per day. During that time, they would receive numerous questions from military commanders and government officials, including as many as a half dozen calls per day from the Senate Select Committee and the White House.

For their work, the team topped numerous other applications to earn the National Intelligence Meritorius Unit Citation for the Ballistic Missile Division. "What that really means is that it's the team MVP award," Engle proudly explains. Among the accomplishments cited in the award were the following:

- Authored numerous key policy support answers, including presidential daily brief items
- Authored more than 40 analysis reports and technical documents that were crucial to decision-making actions taken by the president
- Supported a brief to White House senior staff members, which was hailed as "absolutely first-rate analysis!"
- Assembled a decision book, which enabled engagement with key coalition partners.

Engle said the national leaders called the team a "national treasure" for their excellent work, and the way he speaks of his team shows he agrees. "I'm very proud of them," he beams.

USING "REVERSE ENGINEERING" TO PREDICT THE TEST

"Because North Korea is one of the most secretive and isolated countries, our ability to predict or understand their actions is limited," Engle explains. While other countries sometimes announce when they're going to test missiles, North Korea keeps to itself.

To unravel the North Korean plans, the team performed what they called "reverse engineering." Other countries have an understanding of U.S. capabilities, so they attempt to hide things and even put out erroneous information to try to trip up the intelligence teams. "We work backwards," Levinson, a chemical engineer, explains. "It's the toughest process, but you use the same skills as you would in regular engineering."

It's truly an interdisciplinary work atmosphere. In other words, people from a number of disciplines work together to solve the puzzles. Among the Rose-Hulman alumni, for example, are mechanical, chemical and aerospace engineers. Sobecki, Levinson and Faith work as systems analysts, each specializing in a certain country. Augsburger and Gersch study propulsion and performance to make both digital and dynamic models to predict how far a certain missile will be able to go.

Another way the team describes its work is to equate it to trying to put together a 100-piece puzzle with 50 to 70 pieces missing. They use every piece of information they can find, from magazine articles to data available through national technical means. After all, no matter who produces a weapon, the laws of physics are the same. As a result, sometimes the team finds those missing "puzzle pieces" from other puzzles.

The intelligence reports from the NASIC division not only helped the U.S. government, but our key foreign partners as well. "The U.S. government has the best intelligence apparatus, so we make the largest investment," Engle explains. "We leverage each other's skills, expertise and knowledge, because our foreign partners have key pieces to the puzzle, too."

While the North Korean project was made very public, the large majority of the Ballistic Missile Division's work is highly classified. In fact, most of the time they can't even tell their families what they do at work. All employees must have Top Secret Clearance, which can take a long time to obtain. As a result, many future NASIC employees now start in a co-op program so the clearance process can start earlier in their career.

Because more than 20 countries have ballistic missile systems, it is likely that these weapons will be a threat into the future for U.S. forces. They are attractive because they can be used effectively against a country with a strong air-defense system and they can be loaded with chemical, biological or nuclear warheads.

ROSE-HULMAN PREPARES STUDENTS WELL FOR NASIC WORK

Engle says he loves to recruit new employees from Rose-Hulman because the curriculum promotes and provides such well-rounded people. "They can do the nuts and bolts of their job, and they can also interact with people and provide the information well." As you read above, those communication and interpersonal skills are extremely important when one is reporting to such high-level government officials.

While Gersch received his bachelor's degree elsewhere, he appreciated his overall learning experience at Rose-Hulman while earning a master's degree. "I really learned how to deal with problems," he recalls.

Engle remembers how willing the professors were to take their time and talk with students. They really helped him uncover what he wanted to do with his career and then steered him toward the classes that could take him there. For his role as Division Chief, Engle also believes his minor in sociology was at least as important as his major.

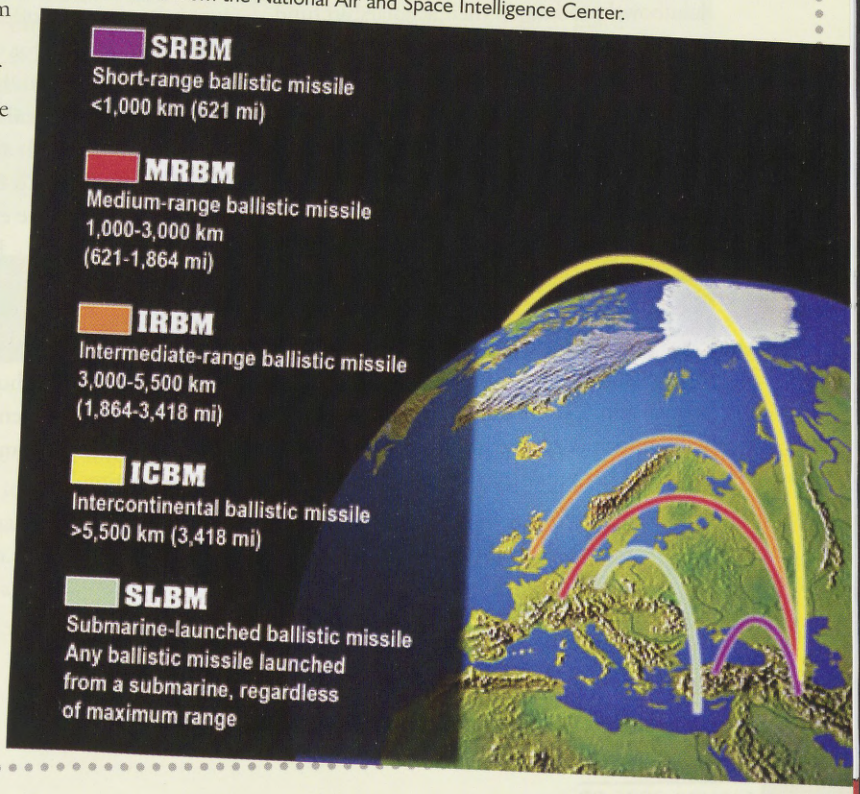
Faith was pleased with Rose-Hulman's focus on the Humanities, remembering that she took 32 credit hours in that department. "Those classes make us able to communicate better," she believes. Her communication skills and her groundbreaking work at NASIC helped her to be chosen from among thousands of candidates as the 2004 Air Force Intelligence Award Program winner for mid-level analysts.

Augsburger remembers modeling rocket engines in an advanced modeling class. "I predicted how high it would go and tested it," he says. That was one of the key experiences that led him to his NASIC position.

Rose-Hulman, too, is proud of this team of alumni putting together those seemingly unsolvable puzzles to boldly protect our country from foreign threat.

Gail Hayes is a writer with WilliamsRandall Marketing Communications.

The North Korean TD-2 falls into the category of ICBM. Missile chart is from the National Air and Space Intelligence Center.



CLASS SCHOLARSHIPS ENABLE COLLEGE TO CONTINUE RECRUITING THE BEST STUDENTS

BY DAVID PIKER

Seven Rose-Hulman Institute of Technology graduating classes have reached or exceeded a financial goal that will have a positive impact on Rose-Hulman students and the reputation of Rose-Hulman for many decades. Their efforts are creating new scholarships to enable the college to successfully compete for the nation's best students. Each class has achieved the goal of raising at least $50,000 or more to establish an endowed scholarship fund in honor of their class. Four classes have a scholarship fund value of over $130,000. Thirty-three classes have started raising funds to endow a scholarship. The market value of the three largest funds are the classes of 1940 ($994,724), 1954 ($608,000) and 1952 ($276,247) as of December, 2006.

"Almost all of us received some type of financial help when we were students, and we should honor those who assisted us by providing scholarships to ensure that Rose-Hulman can continue to recruit outstanding students," stated Hal Brown, a Rose-Hulman trustee, who is involved in planning the 50th reunion for the class of 1957 at homecoming Sept. 28-29. At their reunion dinner, the class will present a $57,000 check to President Gerald Jakubowski to launch their scholarship fund.

Fred Goetsch, who is chair of the class of 1957 reunion, says getting a few early gifts is important to a successful effort. "You need to identify a core group in your class to 'seed' the fundraising effort," he recommends. "In our case, Ron Meredith was the leader. Then it takes personal contacts and continued follow-ups to seek support."

In addition to the class of 1957, graduates of 1977 have reached their goal in time for their - reunion at homecoming.

"We have received fairly broad based support," notes '77 class member Jeff Burgan, who along with classmate Warren Mickens has coordinated efforts to raise funds for their class scholarship. "The next class reunion will be interesting since we will honor the first recipient of our class scholarship," says Burgan, past president of the Rose-Hulman Alumni Association.

"It took our class five years for the most part to get to where we are. The real key is whether we can push to double the amount over the next few years," Burgan said.

Mark Lindemood, vice president for development, encourages classes to plan early and to use a reunion year, especially the 25th or 50th, as a timeframe to achieve the $50,000 goal or significantly add to an existing class scholarship fund.

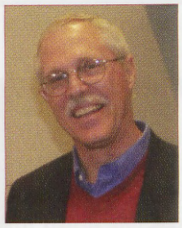
"A reunion year is a time when graduates gather to reflect about how Rose-Hulman had a significant, positive impact on their lives. It is an ideal time to give a very special gift to their alma mater," he said.

Lindemood encouraged classes that have started their funds to increase their efforts to exceed their goal. "Providing the excellent engineering and science programs Rose-Hulman offers with a low student-to-faculty ratio requires additional resources to maintain and enhance," he emphasized. "Increasing our scholarship programs is vital to ensuring the college's leadership position," Lindemood stated.

Rose-Hulman is not able to provide the level of financial aid offered by other colleges and universities it is competing against for outstanding students, notes Jim Goecker, dean of admissions and financial aid. "We're competing against the best colleges and universities in the country who are able to meet a student's financial need which is something we are not always able to do. To continue to be the best, we must be able to recruit the best," he emphasized.

If your class has a scholarship effort under way, you can find out the value of the fund at www.rose-hulman.edu/development/acscholarship.htm

To discuss beginning a fundraising effort to create a class scholarship, contact Jessica Callahan, coordinator of development activities, 812-877-8217, or at Jessica.Callahan@rose-hulman.edu



EXCITING DAYS AT A TRULY SPECIAL PLACE

BY TOM CURRY, PRESIDENT OF THE ROSE-HULMAN ALUMNI BOARD

These are exciting days at Rose! In March, the Indianapolis Colts Super Bowl Trophy traveled to Rose-Hulman, the summer camp host to the Colts. In April, Dr. Gerald S. Jakubowski was inaugurated as the 13th president of Rose-Hulman. In May, Rose graduated the highly talented Class of 2007 in the Sports and Recreation Center. The things that are happening at Rose make me proud to be an alumnus.

There are many ways for you, as a Rose alumnus, to get involved and have fun! On the Fourth of July, Rose-Hulman hosted "A Day at the Ball Park" at an Indianapolis Indians baseball game. It was a fun afternoon for the entire family with a Rose-Hulman picnic complete with food and refreshments before the game followed by the game and fireworks at the beautiful Victory Field. The "Vic," as it is called, is one of the most fan- and family-friendly minor league ball parks in America.

Rose-Hulman is truly a special place. As an alum, you know that. But, perhaps, you have forgotten how special it really is. Plan to come to some of the many Rose-Hulman events. You are always welcome. Go to the Web site to see what they are and when they happen. We know that you will enjoy yourself!

I hope to see you at one of these events.

Robert Fuller ('88), construction manager for Hunt Construction which is the lead construction firm on the new Lucas Oil Stadium in Indianapolis, provides an update to more than 60 alumni who gathered for a meeting in Indianapolis this spring. The meeting was sponsored by the Office of Alumni Affairs.

Hoosier Motorcyclists Now Can Plate With Pride

Indiana motorcycle enthusiasts have been asking for a way to show their Rose-Hulman pride, and now they can with the Rose-Hulman Motorcycle License Plate. Just like the plate for passenger vehicles, the motorcycle plate is available directly from the Bureau of Motor Vehicles. Just stop by your local license branch and ask for the Rose-Hulman motorcycle license plate. No authorization form is required from the alumni office at Rose-Hulman. With your purchase of any Rose-Hulman license plate, you are making a difference in the lives of students. The license plate program typically raises $40,000 annually for student scholarships! A $25 tax-deductible contribution is given to Rose-Hulman for each plate ordered per year. An additional $15 special recognition plate fee along with your annual vehicle registration fees are assessed by the Bureau of Motor Vehicles.

ARMED SERVICES UPDATE

Rose-Hulman is proud of its men and women serving in the armed forces. To that end we maintain a web page where information can be posted about our alumni in the various services. If you or a loved one connected to the Rose-Hulman community are serving in the U. S. Armed Forces, please share your experiences for possible posting on the Rose-Hulman Web site. You can access the site at http://www.rose-hulman.edu/alumniaffairs/troops.htm to learn about the happenings of our alumni serving around the world and to post an update.

ALUMNI Class Notes

1965

Rich Reeves (E.E. and M.S.E.E. '66) retired in 2003 from Lockheed Martin-Orlando after a 25 year industrial career and 14 years as Air Force civil servant. He then joined a small military electronics company located in Melbourne, Fla., as vice president of business development. Last year, that company was acquired by Northrop Grumman and this last March he retired. Rich and his wife, Rose, plan to continue to reside in Orlando.

1977

John R. Laswell (M.E.) has taken a job as lead engineer-mechanical for Foth Production Solutions, LLC in Lake Elmo, Minn. Moving to the position from Wisconsin, John has resolved that he will not become a Vikings fan. In other news, John was named a Silver Beaver award recipient by the Bay-Lakes Council of the Boy Scouts of America.

1978

David A. Whiteley (E.E.) has been elected to the office of executive vice president for the North American Electric Reliability Corp.

1979

Martin Seffrin (E.E.) has been named director of the Trident Life Extension Programs, a major weapon system upgrade for the U.S. Navy Trident Nuclear Weapon System.

1981

Jim Renfro (E.E.) has been promoted to the level of engineering fellow at Raytheon Network Centric Systems in Marlborough, Mass.

RACE BACK TO ROSE
HOMECOMING 2007
SEPTEMBER 28-29
ROSE-HULMAN INSTITUTE OF TECHNOLOGY

HOMECOMING REUNION CHAIRS NAMED

Chairs for this year's Homecoming reunion classes are:

1957 - **Fred Goetsch**
1962 - **Vern Fellows**
1967 - **Pat Cahill**
1972 - **Tom Dinkel**
1977 - **Dick Neal**
1982 - **Ben Brian**
1987 - **Jeff Myers**
1992 - **Ken Koziol**
1997 - **Erik Hayes** and **Shawn Eads**

For more information about reunion activities, contact the alumni office at 812-877-8976 or visit the Homecoming web site at www.rose-hulman.edu/homecoming.

1982

Chris A. Mack (Ch.E., Chem, E.E., Phy.) has accepted a role as advisory scientist for Invarium, Inc., a leading provider of advanced patterning synthesis solutions to the global semiconductor industry. He was described as "Lithography Guru and Gentleman Scientist."

1983

Joseph L. Krupa (M.E.) has accepted a position as senior associate in the Singapore patent firm of Ella Cheong Spruson & Ferguson.

1984

Greg Gibson (C.E.) has been appointed to serve on the Indiana Port Commission by Gov. Mitch Daniels.

1985

Cary Bledsoe (E.E.) has been appointed director of the Midwest region of Avineon, Inc. Working in the company's defense systems division, he will lead efforts in support of Avineon's defense contracts and assist with business development in the Midwest.

1989

James M. Blackburn (M.E.), lieutenant colonel in the U.S. Marine Corps has been given command of MWHS-1 in Okinawa, Japan, beginning in January of 2008. He has served in the Marines for 17 years and has flown the AV-8B harrier for 15 of those years. In 2004, he was named "Harrier Pilot of the Year."

John Leonard (Ch.E.) has been promoted to president of DSM Resins US, Inc., in Augusta, Ga.

1990

Kevin "Uncle" Fesler (M.E.), a lieutenant colonel in the U.S. Air Force, has taken command of the 94th Fighter Squadron, one of only 2 operational F-22 squadrons. The 94th Fighter Squadron is the famous WW1 squadron called the "Hat in the

Ring Gang", and our Top Ace of all time is Captain Eddie Rickenbacker. As a side note, Eddie Rickenbacker actually sold the Indianapolis 500 race track to Tony Hulman in the 1940s after he left the US Army Air Corps and founded the Rickenbacker Motor Company.

1991

Rodney J. West (M.E.) and his wife, Laurie, announce the birth of a fourth daughter, Julia. She joins big sisters Alyssa, Nora and Vanessa in Liberty, Ind. Rod is employed with Square D/Schneider Electric in Oxford, Ohio.

1993

Rhett T. Harper (C.E.) and **Kyle T. Harper ('95, C.E.)** have opened Harper Engineering in Lakeland, Fla. The civil engineering business specializes in commercial and residential site development.

1994

Matthew Anderson (C.E.) reports that twins Brent and Bryn were born Dec 10th, 2006. Big Brothers Blake, Connor and Parker are wonderful help to Matthew and his wife, Deana.

Kevin Hayes (M.E.) received his PE license in the State of Texas last December.

Kevin C. Ketzler (E.E.) has celebrated his 10-year anniversary with Affiliated Resource Group where he is a senior developer-analyst and project leader.

Mark Young (C.E.) has accepted a position with the Vecellio Group in West Palm Beach, Fla. The Vecellio Group is a conglomerate of construction, construction material, mining, and energy companies.

1995

Carlton Brown (E.E.) married Marinelli Valencia Jan.13. They reside in Royal Oak, Mich.

Andrew Nuxoll (C.S.) updates Echoes that since we last heard from him he married Sarah Elizabeth Nehrt and they have two children: Isaac and Josephine. After a six-year career in the software industry, he returned to graduate school at the University of Michigan and he will defend his Ph.D. thesis in July. He has accepted a position as an assistant professor at the University of Portland, beginning in August of 2007.

Charles W. Weko III (E.E.) has been selected to attend the Naval Postgraduate School to study for a master's of operational research. He is a major in the U.S. Army.

1996

Frederick Schurger (E.E.) has graduated from Palmer College of Chiropractic and has opened a practice in Springfield, Ill. He and his wife, Jeanne, were married April 14.

John Callan Hale (C.O.) and **Abigail Garrett Hale (E.E., '99)** welcomed their second child on Jan. 7. Samuel Martin was in a hurry to join big Sister Tamsyn as he was born in the front seat of the car outside the hospital.

1997

Mark Andrew Morgan (E.E.) married Amy Kathleen McCarthy last November.

Ryan Shaw (C.S.) and his wife, Kami, announce the birth of twin daughters, Olivia and Aliya, born last December.

Vince Valenzuela (M.E.) married Saleena Persaud March 25 in California.

Robert Zembrodt (M.E.) and **Sara Brown Zembrodt (M.E., '99)** welcomed their second child, Tobias Joseph, Jan. 20. He joins brother Jacob.

1998

Benjamin Cotton (M.E.) married Sylwia Sieczkowska on Feb. 10. On the career front, he has moved from Chicago to Phoenix to take an in-house position as the intellectural property attorney at ASM America.

1999

Angela Anderson (Ch.E.) and **Christopher Anderson (M.E.)** recently had their third child, Logan, born last October.

Mark D. Bessler (M.E.) has started a new job with BP Exploration Alaska as a flow station facility engineer. He and his family have relocated to Anchorage, Alaska.

Hanna Pekinpaugh Fortwendel (M.E.) and her husband, Philip, announce the addition of Max Mathew, born Jan. 10. He joins sister Sydney Rae. Hanna is a project engineer with Domtar in Hawesville, Ky.

Marco Morales (C.O.) updates Echoes that since we last heard from him, he has returned to Kokomo, Ind., after a two-year assignment in Japan for Delphi Corp. He also completed his manufacturing management master's degree from Kettering University. He recently received a promotion to project manager and continues to support Toyota

Internet search reunites couple who dated five decades ago

It took half a century and a Google search, but two college flames recently rekindled their romance into a marriage. Tom Pebworth, a 1957 chemical engineering alumnus, dated Lynn Hollis for two and a half years when he was a student at Rose Poly. Upon his graduation they amicably parted ways – he to a job in St. Louis and she continuing her studies at Hanover College. Both moved on with their lives, marrying other people and becoming parents. Each of them became widowed – Lynn in 1997 and Tom in 2005. He later decided to see if he could track down Lynn on the Internet using the Google search engine. He found her name on the staff page of the First Presbyterian Church in Youngstown, Ohio. An e-mail of inquiry led to confirmation that it was the same Lynn he knew in college. Other e-mails followed and soon they were meeting face-to-face at a Cracker Barrel Restaurant in Ohio. They married about a year ago and now live in Canfield, Ohio.

BORGWARNER HONORS TWO ALUMNI

Two Rose-Hulman alumni were honored by BorgWarner earlier this year with the BorgWarner Product Leadership Innovations Awards. Christopher Lanker, class of 1992, M.E., was recognized in the area of product development, and Keith Martin, class of 1978, M.E., was honored for customer excellence. Lanker is with the BorgWarner TorqTransfer Systems, in Auburn Hills, Mich., and Mart is with BorgWarner Transmissions Systems, also in Auburn Hills. The awards were given for exceptional contributions in their respective areas along with recognition for leadership.

GAMBRELL TAKES ON ADDITIONAL DUTIES AS PART OF DOW'S EXECUTIVE LEADERSHIP TEAM

Mike Gambrell, a 1976 chemical engineering graduate, has taken on additional responsibilities in his role as executive vice president of basic plastics and chemicals for Dow. He has taken additional line responsibility for Dow's global manufacturing and engineering organization. He also has executive oversite for Dow's activities in India, Middle East and Africa. Gambrell is a member of Dow's four-person executive leadership committee, which is responsible for corporate strategy and financial performance. He also is a member of the company's business operations committee and management committee. In 1996, he received the Rose-Hulman Distinguished Young Alumnus Award.

programs for Delphi. He and his wife, Elizabeth, welcomed a new member to the family, Joshua, who joins siblings Jacob and Tessie.

Matthew Simon (Ch.E.) and his wife, Heather, had a baby girl, Morgan, born in February. She joins siblings Shawnie, Madison and Aiden.

Malcolm Talbot (Ch.E.) married Holly Clifton on March 17.

2001

Michael Case (M.E.) married Christina Xia this spring in Newark, Del.

2002

Robert F. Guratzsch (C.E.) married Joana X. Borges last February.

Chris Small (M.E.) has been promoted to global product manager for GGB Bearing Technology's metal-polymer bushing product line. His responsibilities include product development support and global sales growth.

Kyle James Spontak (Ch.E.) and his wife, Natalie, welcomed their first daughter, Hannah Rose, last year.

2003

Aaron Burke (C.E.) married Catherine Mohr last fall.

Dan Gallagher (M.E.) and his wife, **Marcy (Ch.E., '05),** have moved to Brownsburg, Ind. Marcy has taken a process engineering position with National Starch in Indianapolis, and Dan is a systems engineer with Beckman Coulter.

Tim (M.E.) and **Amy (A.O.) Kibbey** announce the birth of their first son, Reed Joseph. Tim works for ATK Lunch Systems in Promontory, Utah, were he has been researching and designing the solid propulsion for NASA's new Crew Launch Vehicle.

Manish Lodaya (M.S., Ch.E.) received an MBA finance degree from the University of Houston in December of 2006. He relocated to Dubai-United Arab Emirates at that time.

Grant Byron Miller (Ch.E.) married Anne Elizabeth Fitzenberger Dec. 2.

Steve Hoelle (C.S.) married Audrea Bailey last fall.

2004

Michael W. Shipley (M.E.) and **Katherine M. Herber (Ch.E.)** exchanged wedding vows last year.

2005

Brian T. Meyer (M.E.) was the distinguished honor graduate from the U.S. Army Aviation Warfighting Center at Ft. Hacker, Ala. Lt. Meyer currently is stationed with the 101st Airborne Division at Fort Campbell, Ky. And pilots the OH-58D helicopter. This note was submitted by proud brother Jason Meyer, Class of '03.

2006

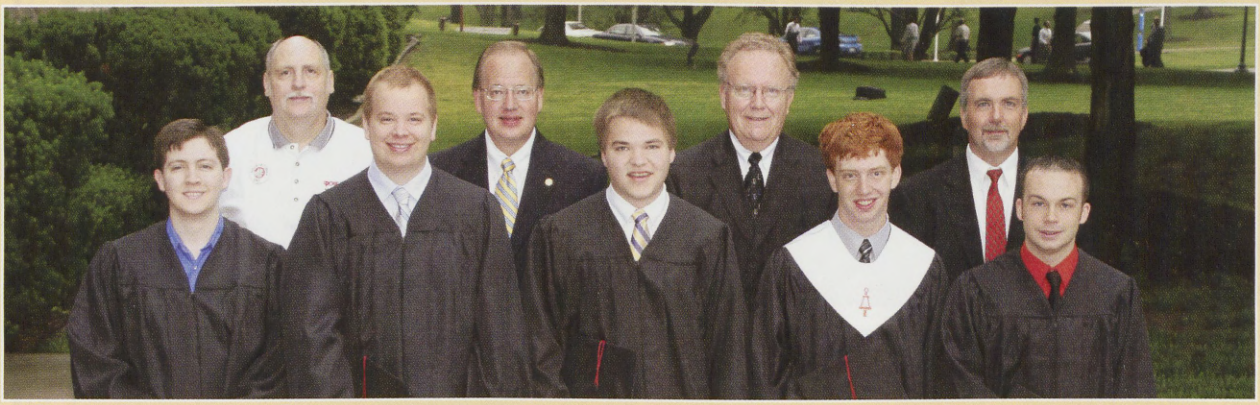
Alicia Gehlhausen (Ch.E.) and **John Harmon (M.E.)** married July 1.

SURVEY COMING

An *Echoes* survey readership survey will be conducted later this summer. If you receive a copy of the survey, please take time to respond. The survey allows us to make sure we are meeting the needs of our readers.

LEGACY GRADUATES

Each year, Rose-Hulman is proud of its legacy graduates. Unless otherwise specified, the alumni listed are fathers of the graduates pictured.



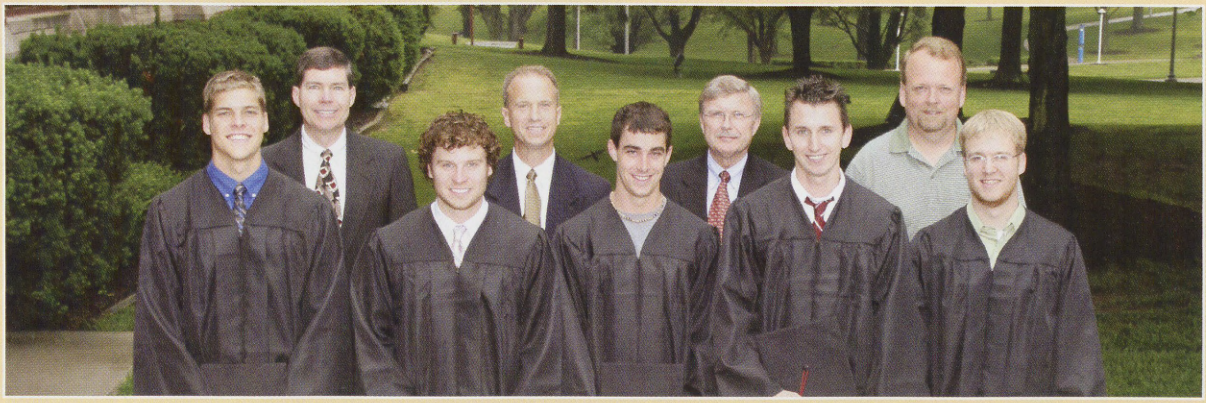
From left: Robert Herbig, Paul Herbig '75, Christopher Meyer, Doug Meyer '73, Jonathan Myer, Mike Haughey '75, Michael Haughey, Cole Buttry '80 and Riley Buttry.

From left: Kenneth Rich '66, (uncle), Dixon Rich '77, Joe Ringwald '76, Joshua Rich, Dave Schue '04 (brother) Eric Schue, Rick Schue '75, Andrew Johnson, Ron Andrews '74 (uncle) and Bob Schwier '49 (great uncle).

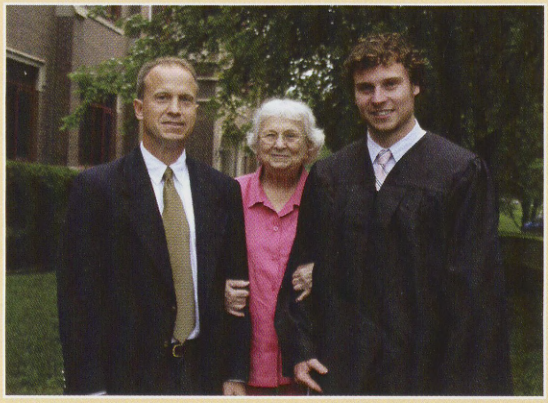
From left: Susan Hannum (widow of the late Kenneth Hannum '56 [grandfather]), Carl Garmong '62, Rachael Hannum, David Hannum '81, Brad Otto nephew of Gus Pelson '75, Sam Hart '55 (great uncle) and Brandon McKiernan.

LEGACY GRADUATES

From left: Dixon Rich '77, Joshua Rich, Paul Georgas '77, Adam Georgas, Ralph Wagle '83, Jake Wagle, Graham Hacker '67 (uncle), Adam Hacker, Robert Johnson '52 (great uncle), Catherine Walker, Jeff Martin '78, and Berandon Martin.



From left: Scott Decker, Steve Decker '77, Robert Wilson, Robert Wilson '83, Brad Pickett, Randy Potts '71, Eric Lucas (grandson of the late Harold Lucas) Greg Spurgeon '82, and Garrett Spurgeon.



From left: Robert Wilson '83, Ann Wilson (widow of the late Robert Wilson '43 grandfather) and Robert Wilson

The Ray Family Legacy from left: Marge Schwier (daughter of the late Fred Ray '20), Bob Schwier '49, Dorothy Tipton (daughter of the late Fred Ray '20), Nina Ray (granddaughter of Fred and daughter of the late F. Perry Ray '48) Andrew John)(great grandson of Fred Ray) and Ronald Andrews (grandson of Fred Ray).

OBITUARIES

1928

Wendell Watkins (M.E.) died on his 101st birthday April 3. He had celebrated 75 years of marriage to his wife, Mary, in 2004. Survivors include daughters Nancy and Barbara. At the time of his death, he was Rose-Hulman's oldest living alumnus.

1929

John A. Derry (E.E.) died March 13 at the age of 99. He was retired from the U.S. Atomic Energy Commission. He also was a senior life member of the Institute of Electrical and Electronic Engineers, and a recipient of the Rose-Hulman Honor Alumnus Award (1968). Survivors include his wife, Jane, and three children and one stepchild: Josephine Ferrusi, Stephen, Brian and Cindy Balkham.

1935

Francis "Red" Richardson died April 13 at the age of 94. He is survived by his children John, Patricia Thuer and William and his stepchildren Barbara Livsey and Steven Grubbs. He was a retiree of the Indiana State Highway Commission where he served as head of bridge design. Up to the last week of his life, he visited an Indianapolis gym where he worked out two or three times a week.

1942

Dwaine L. Woolsey (E.E.) died April 9 at the age of 86. He was retired from Indiana Bell and AT&T. Survivors include his daughters Linda Pratt and Peggy Campbell.

1947

John F. King (C.E.), 85, died March 29. He was retired from the Tennessee Valley Authority. Survivors include his sons, John and James.

1949

Richard G. Fairbrother (Ch.E.) died April 24 at the age of 78. For most of his career, he worked at the American National Can Company as a chemical engineer. He is survived by his wife, Martha, and children Stephen, Helen and Barbara.

Milton O. Hambrock (M.E.), 84, passed away on March 19. He was a retire from Allis Chalmers. Survivors include children Carol Bieber and Craig.

Richard E. Hoggatt (C.E.) died last August. He worked from 1950 to 1980 at the U.S. Geological Survey.

Harold W. Monroney (C.E.) passed away Jan. 21. He was retired from the State of Illinois Department of Transportation where he served as deputy secretary. He is survived by his wife, Dorothy, and daughter Mary Kay.

1953

Edwin Blanford (E.E.) died Feb. 18. His career included stops at Bell Labs and General Electric, where he worked on Saturn and Apollo projects. Survivors include children Bruck, Mark and Lynn.

1957

Ronald D. Freiberger, 72, died April 11. He was retired from Delco Electronics where he served for 22 years. Survivors include his wife, Martha; four daughters – Eleanor Ridge, Mary Haney, Rhonda Wagner and Lisa; and son James.

1960

William T. Brummett, Jr. (E.E.) died last October. He worked for Emerson Industrial Controls for 33 years before taking an early retirement to pursue his passion of cooking. He bought Etienne's Restaurant in San Clemente, Calif. Survivors include his wife, Dee; father William T. Sr.; daughters Tia, Joni Amy and Jill; and son, Willie

1980

David A Caudill (C.E.) died April 24 at the age of 48 in Kansas City, Kan. He was a project manager of water services at HNTB in Kansas Cityu. Survivors include his parents Mr. and Mrs. Del Caudill; a brother Anthony; and grandfather Homer.

Faculty

Former Rose-Hulman Institute of Technology chemistry professor **Oran Knudsen** died April 6 in Terre Haute at the age of 97. He retired from the Rose-Hulman faculty in 1975 after a 29-year teaching career at the college.

He served as chairman of the Department of Chemistry from 1952 until 1960. Knudsen was the first recipient of the Dean's Outstanding Teacher Award presented by the institute in 1968.

He served as chairman of a committee at the institute which recommended expansion of the curriculum to include degree programs in chemistry, physics and mathematics.

Knudsen earned his B.S. in chemistry at the University of Wisconsin and the Ph.D. in chemistry at New York University.

His family requests that memorial contributions be made to Rose-Hulman.

CARL LEO MEES: MORE THAN A NAME ON A DORM

Daily students pass through Mees Hall and walk by the portrait of the man for whom the hall is named, Carl Leo Mees. His painting holds little immediate relevance to the current Mees Hall residents and their world of classes, projects, pizzas, and instant messaging. However, for students and alumni who passed through the doors of Rose between 1887and 1919, Mees cast a long and impressive shadow. He helped shape and expand the project-based curriculum laid down by CharlesThompson, the first Rose president, and he had a great role in ensuring the importance of integrating theory with application.

The son of a Lutheran minister who emigrated from Germany, C. Leo Mees (as he signed his name) was born and reared in Columbus, Ohio in 1853. Mees graduated from Columbus High School where he was assistant to his physics teacher, Thomas Corwin Mendenhall, who became Rose's second president in 1887. Mees claimed it was Mendenhall who inspired him to study chemistry and physics. In 1871, he earned a B.S. degree from what became Ohio State University, again studying under Mendenhall, who had become OSU's first professor. He entered Starling Medical College (later to become part of OSU) and took the medical and the chemistry curricula in parallel, graduating with an M.D. in 1875, never to practice medicine.

Mees's most significant scientific work began at Starling where he was mentored by Dr. Thomas Wormley, an international expert on poisons. Mees worked with Wormley in perfecting methods for the detection and identification of human blood and tissues in suspected murder cases. He was the first to succeed in photographing different kinds of blood for comparison and exhibition to juries.

He left the world of poisons and forensics in 1875 to become professor of chemistry and physics at the University of Louisville. Beginning in 1880, he invested two years in post-graduate work, first at Frederick William University of Berlin, where he studied under physicist Herman Helmholtz, famed for his theory of electro- and thermodynamics, and later at the Royal College of Science (now Imperial College of London), where he studied under England's foremost microbiologist and physicist, John Tyndall.

Returning to America, his formal education completed (in 1893 the Board conferred upon him the Ph.D.), Mees spent 1882-1887 as professor of physical science at Ohio University before coming to Rose in the fall of 1887 as adjunct professor of physics (the department consisting of himself and the new President Mendenhall). After Mendenhall left Rose in 1889, Mees served as acting president for a year, until President Henry Eddy arrived. With Eddy's departure four years later, Mees again became acting president and, the following year (1895) entered into the presidency in his own right, a post he was to fill until his retirement in 1919.

It fell to Mees to lead the school through America's worst recession prior to the Great Depression. Enrollment fell and income from the endowment, meant to be sufficient to operate the school (with free tuition for Vigo County students) decreased while costs rose. He was able to keep the school afloat and never wavered from the Rose mission of providing a first class engineering education. He took as his responsibility to be the kind but strict father for the Rose family, not unlike Dr. Hulbert. Dr. John Peddle, former student and long-time professor, wrote that "…perhaps it was the preacher in him which gave him a personal interest in the salvation of each boy."

He would use his own funds to keep a good student in school, 'loans' rarely remembered or repaid. Students having a hard time buying textbooks or covering an unexpected lab equipment breakage would come to him. Once, when a student considered to be lacking in self-discipline went to Chicago for a good time, Mees got on a train and brought him back, such was the nature of the sense of '*in loco parentis*' in those days.

He took it upon himself to write the first history of Rose, entitled *Rose Polytechnic Institute Memorial Volume*, in 1909. Mees took a major role in our first capital campaign in 1916 to raise the $150,000 needed for the planned new campus, to be built on land purchased from the Hulman family. He traveled throughout the country speaking to alumni chapters about the need for the new campus and labs. The exertion of the campaign no doubt contributed to his being granted a leave for health reasons for the 1916-17 academic year.

Mees returned to his duties to see Rose through the strains of World War I – the elimination holidays and vacations and advancing the June 1918 graduation to January to help the boys being called up for wartime military needs. The curriculum was expanded to cover topics of vital need to the Army including ballistics and communications. The school, provided at the request of the War Department, specialized training for selected troops. The demands for housing strained Institute resources as never before (but did add needed revenue). In all 400+ men were housed and received special coursework and 30 percent of alumni served in the military.

In July of 1919, the war effort was history and Mees, now in his 67th year, tendered his resignation. His health was failing. He wrote to the faculty stating one last time his educational philosophy that methods must be continually examined, that content must reflect the best of the various disciplines "…but integrated from the experience and views of many as forth in educations societies, discussed in learned and professional association." The Rose faculty in 2007 still embody that philosophy.

He died in his 80th year, April 19, 1932 at his residence. School was dismissed so students, alumni, and Institute employees might attend the services, also held at his home. President Donald Prentice and Dr. John White escorted his body to Columbus, Ohio for burial.

A window of opportunity MAY BE CLOSING

Make an IRA withdrawal & support Rose-Hulman

EXTRA BENEFITS

Alumni may receive added benefits by giving Rose-Hulman a portion of their IRA withdrawals, thanks to 2006 legislation. Under the new law, such gifts can count toward your required IRA distributions for 2007 and be excluded from your gross income (a tax-free rollover).

TO QUALIFY FOR THE 2006 LEGISLATION

- You must be 70 1/2 or older at the time of the gift
- Transfers must go directly from the IRA to Rose-Hulman
- Your total IRA gift(s) cannot exceed $100,000 in 2007
- Gift(s) must be outright

RECENT GIFTS TO ROSE-HULMAN USING THE PENSION PROTECTION ACT OF 2006

- Members of the class of 1957, in celebration of their 50th reunion year, have strongly encouraged classmates to take advantage of the PPA and roll gifts from their IRAs into the Class of '57 Scholarship Fund.
- A Class of 1956 electrical engineering alumnus made a gift of $50,000 to the Rose-Hulman Diversity Initiatives Fund by distributing this amount from his IRA.
- A physician and friend of Rose-Hulman helped endow the Samuel F. Hulbert Chair in bio-medical engineering by taking maximum advantage of the PPA with his generous gift from his IRA.
- A 1958 mechanical engineering alumnus made a $20,000 gift to an endowed scholarship fund in memory of a relative and by doing so, he increased his total giving to Chauncey Rose Society status and will soon be donning the Rose tartan blazer emblematic of his generosity. He said, "I couldn't pass this up!" in referring to the advantages of making this gift from his IRA.

THANK YOU FOR YOUR IMPORTANT PART IN BUILDING AN EVEN STRONGER ROSE-HULMAN.

Although legislation is pending to extend the benefits of the Pension Protection Act, there are no guarantees that it will pass. If you meet the qualifications outlined on this page, please consider a gift from your IRA before year-end. Please contact us to find out how you can benefit from this special opportunity available in 2007.

David D. Haynes, Director of Planned Giving
812-877-8453 • David.Haynes@Rose-Hulman.edu

PARTING SHOT

Commencement 2007 brought out the confetti as members of the Class of 2007 were declared graduates of Rose-Hulman Institute of Technology this May. A record-sized class received diplomas this year.

ROSE-HULMAN INSTITUTE OF TECHNOLOGY
Echoes

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Terre Haute, IN 47803

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