



Spring 2002

## Missouri S&T Magazine Spring 2002

Missouri S&T Marketing and Communications Department

Miner Alumni Association

Follow this and additional works at: <https://scholarsmine.mst.edu/alumni-magazine>

---

### Recommended Citation

Missouri S&T Marketing and Communications Department and Miner Alumni Association, "Missouri S&T Magazine Spring 2002" (2002). *Missouri S&T Magazine*. 62.  
<https://scholarsmine.mst.edu/alumni-magazine/62>

This Magazine is brought to you for free and open access by Scholars' Mine. It has been accepted for inclusion in Missouri S&T Magazine by an authorized administrator of Scholars' Mine. This work is protected by U. S. Copyright Law. Unauthorized use including reproduction for redistribution requires the permission of the copyright holder. For more information, please contact [scholarsmine@mst.edu](mailto:scholarsmine@mst.edu).

MSM-UMR

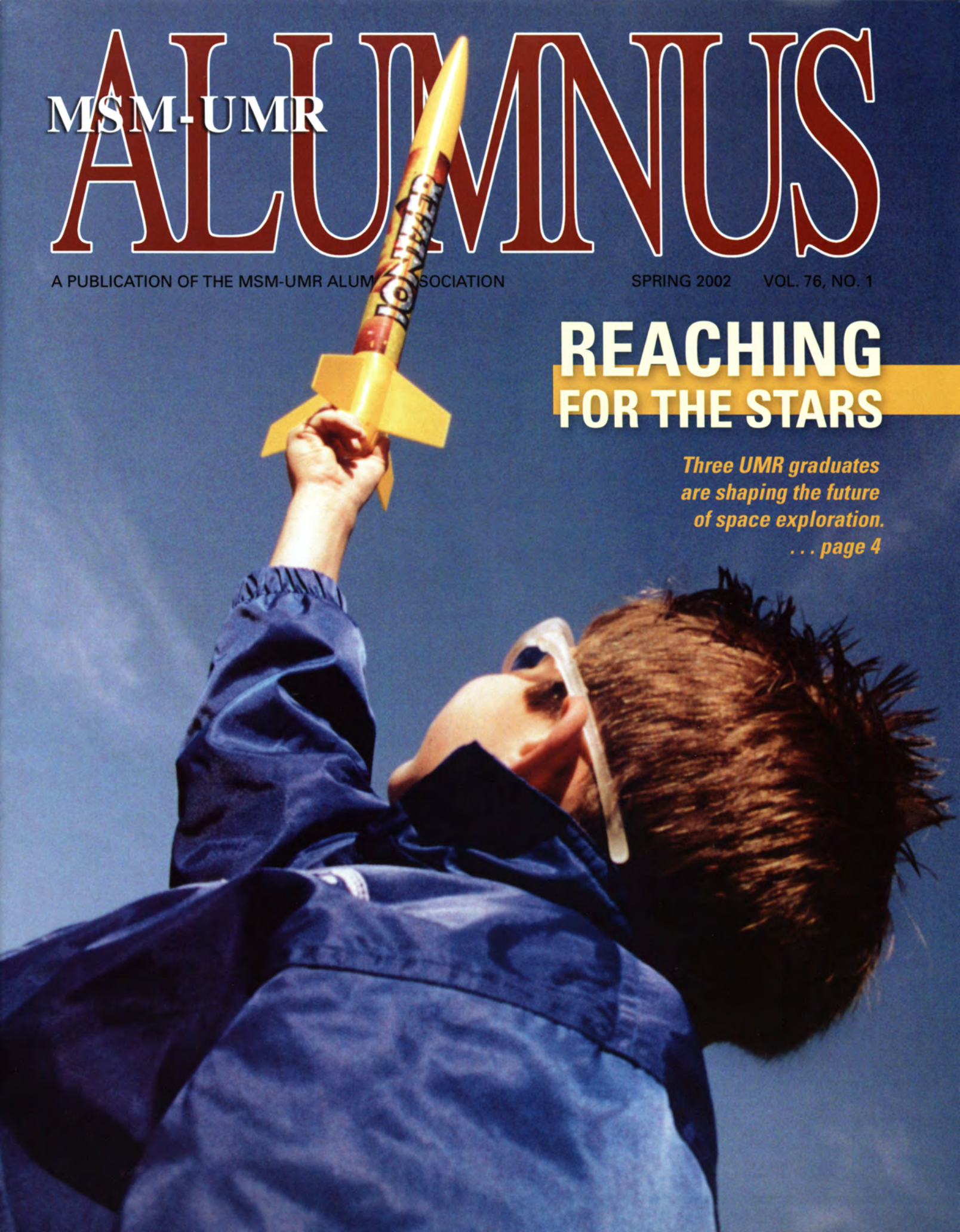
# ALUMNUS

A PUBLICATION OF THE MSM-UMR ALUMNI ASSOCIATION

SPRING 2002 VOL. 76, NO. 1

## REACHING FOR THE STARS

*Three UMR graduates  
are shaping the future  
of space exploration.  
... page 4*



# MSM-UMR Alumni Association

*Representing over 45,000 alumni worldwide*

Castleman Hall • University of Missouri-Rolla • 1870 Miner Circle • Rolla, MO 65409-0650 • Telephone (573) 341-4145 • Fax: (978) 926-7986 • e-mail: alumni@umr.edu • www.umr.edu/alumni

## PRESIDENT

**JAMES E. BERTELSMEYER, '66**  
2403 E 27th Place, Tulsa, OK 74114-5601

## PRESIDENT-ELECT

**ZEBULUN NASH, '72**  
ExxonMobil Corp., 5000 Bayway Drive, Baytown, TX 77522

## VICE PRESIDENTS

**LARRY L. HENDREN, '73**  
Engineering Surveys & Services, 1113 Fay Street,  
Columbia, MO 65201

**K. DANIEL HINKLE, '73**  
4019 Felicia Drive, Sugar Land, TX 77479-2817

**CALVIN M. OCHS, '49**  
1304 Bello Paseo Court, Jefferson City, MO 65109-9765

**DARLENE S. RAMSAY, '84**  
14782 County Road 8160, Rolla, MO 65401

**KENNETH G. RILEY, '56**  
3390 Monterey Road, San Marino, CA 91108

**JON VANINGER, '63**  
1758 Warrington Court, Manchester, MO 63021-5873



## SECRETARY

**LUCIEN M. BOLON, JR., '59**  
902 SW Murray Road,  
Lee's Summit, MO 64081-2355

## TREASURER

**JERRY R. BAYLESS, '59**  
UMR, 101 ERL,  
Rolla, MO 65409-0840

## ASSISTANT TREASURER

**RICHARD L. ELGIN, '74**  
303 E 6th Street,  
Rolla, MO 65401

## DIRECTORS-AT-LARGE

**DAVID L. BEGLEY, '73**, 7656 Crestview Drive, Longmont, CO 80504  
**ROGER A. DORF, '65**, 1000 Beethoven Commons, Fremont, CA 94538  
**JOHN F. EASH, '79**, 73 Greensburg Court, St Charles, MO 63304

**RICHARD W. EIMER, JR., '71**, 33 Dellwood Court, Decatur, IL 62521-5584  
**JORGE A. OCHOA, '85**, 6531 Sweetwood Court, Ft Wayne, IN 46804-0000  
**RICHARD R. PAUL, '66**, 601 Yount Drive, Dayton, OH 45433-1146

## AREA DIRECTORS

Area 1 **SUSAN E. WATSON, '83**, 5 Pond Crest Road, Danbury, CT 06811-2814  
Area 2 **ROBERT J. SCANLON, '73**, 2408 Honeystone Way, Brookeville, MD 20833-3219  
Pittsburgh, PA 15206-4407  
Area 3 **WILLIAM E. STEINKAMP, '64**, 126 Westwood Drive, Clinton, TN 37716  
Area 4 **DANIEL L. CARNAHAN, '68**, 6855 NW 11th Court, Margate, FL 33063  
Area 5 **STEPHEN L. ROBERTSON, '73**, 7460 Pinehurst Drive, Cincinnati, OH 45244-3276  
Area 6 **GENE RAND, '62**, 1100 Lovers Lane, Longview, TX 75604-2801  
Area 7 **GREGORY JUNGE, '65**, 350 N Pilot Knob Road, Galena, IL 61036  
Area 8 **H. EDWARD MIDDEN, III, '69**, Mansfield Electric Co., P O Box 1453,  
Springfield, IL 62705  
Area 9 **PETE LEGSDIN, '70**, 8712 Glenfield Way, Louisville, KY 40241  
Area 10-18 **RANDALL G. DREILING, '81**, 8210 Villaton Drive, St. Louis, MO 63123-3313  
Area 10-18 **GARY W. HINES, '95**, 2329 Cothrell Street, Olathe, KS 66061  
Area 10-18 **RONALD W. JAGELS, '86**, 6211 Nottingham Avenue, St. Louis, MO 63109  
Area 10-18 **AMY LYNN NOELKER, '85**, 1350 NW Jefferson Court,  
Blue Springs, MO 64015-7265

Area 10-18 **STEPHEN R. PULJAK, '92**, 1159 Wildhorse Meadows Drive,  
Chesterfield, MO 63005  
Area 10-18 **JOSEPH F. REICHERT, '59**, 7312 Charlotte, Kansas City, MO 64131-1645  
Area 10-18 **RODDY J. ROGERS, '81**, 2241 E Powell Street, Springfield, MO 65804-4692  
Area 10-18 **SUSAN H. ROTHSCHILD, '74**, 6204 Washington Avenue,  
St Louis, MO 63130-4846  
Area 10-18 **KELLEY A. THOMAS, '91**, 837 Glendower Drive, Kirkwood, MO 63122-0000  
Area 19 **WILLIS J. WILSON, '73**, P O Box 108, Cassoday, KS 66842  
Area 20 **PERRIN R. ROLLER, '80**, 19418 Puget Lane, Spring, TX 77388  
Area 21 **MICHAEL R. MCGATH, '70**, 13676 Coachella Road, Apple Valley, CA 92308-6021  
Area 22 **NORBERT F. NEUMANN, '52**, 4552 Zarahemla Drive,  
Salt Lake City, UT 84124-4000  
Area 23 **KAMILA CRANE COZORT, '85**, 117 Forest Hill Drive Clayton, CA 94517  
Area 24 **H. PAT DUVALL, '62**, 11100 30th Place SW, Seattle, WA 98146-1720

## STUDENT REPRESENTATIVES

**MARTIN RUST**, Student Union Board, 218 University Center-West, Rolla, MO 65409-0770  
**KEITH ZIEGELMAN**, Student Council President, 202 University Center-West, Rolla, MO 65409-0770

## COMMITTEE CHAIRS

**W. R. "PAT" BROADDUS JR., '55**, Associated Aggregates Intl. Inc.,  
PO Box 2545, Dalton, GA 30722-2545  
**GENE W. EDWARDS, '53**, 159 Hillmont Drive, Paducah, KY 42003-8802  
**JILL S. FINKLANG, '87**, 9 Whitmoor Drive, Saint Charles, MO 63304-0562  
**JAMES L. FOIL, '74**, 207 NE Country Lane, Lee's Summit, MO 64086-3111  
**HENRY E. BROWN**, 1005 Burton Avenue, Cincinnati, OH 45229-2205

**J. RICHARD HUNT, '50**, 14913 Hwy 82, Carbondale, CO 81623-9529  
**PHILIP A. JOZWIAK, '66**, 1747 Staunton Court, St Louis, MO 63146-3721  
**ROBERT R. MORRISON JR., '71**, 730 Raintree Drive, Naperville, IL 60540-6330  
**CRAIG S. O'DEAR, '79**, Bryan Cave, PO Box 419914, Kansas City, MO 64141-6414  
**RANDALL L. SKAGGS, '89**, 3262 Mango Drive, St Charles, MO 63301-0100

## PAST PRESIDENTS

**ARTHUR G. BAEBLER, '55**, 17 Zinzer Court, St Louis, MO 63123-2045  
**RICHARD H. BAUER, '51**, 12406 Courtyard Lake Drive, St Louis, MO 63127-1457  
**ROBERT D. BAY, '49**, 673 Princeton Gate Drive, Chesterfield, MO 63017-7056  
**ROBERT T. BERRY, '72**, Burns & McDonnell, 1630 Des Peres Road, St Louis, MO 63131  
**ROBERT M. BRACKBILL, '42**, 11 Sarah Nash Court, Dallas, TX 75225  
**MATTEO A. COCO, '66**, 7115 Aliceton Avenue, Affton, MO 63123-3015  
**PAUL T. DOWLING, '40**, 10144 Winding Ridge Road, St Louis, MO 63124-1158

**RAYMOND O. KASTEN, '43**, 901 W 114th Terrace, Kansas City, MO 64114-5220  
**JAMES B. MCGRATH, '49**, 12425 Balwyck Lane, St Louis, MO 63131-3646  
**MELVIN E. NICKEL, '38**, 10601 S Hamilton Avenue, Chicago, IL 60643-3127  
**J. R. (BOB) PATTERSON, '54**, Show-Me Inc., PO Box 573, Sikeston, MO 63801  
**LAWRENCE A. SPANIER, '50**, 246 Eagle Drive, Jupiter, FL 33477-4061  
**GERALD L. STEVENSON, '59**, PO Box 1629, Highland City, FL 33846  
**JOHN B. TOOMEY, '49**, Starr Management Co., 7110 Rainwater Place, Lorton, VA 22079

## STAFF

**DONALD G. BRACKHAHN, '93**, Executive Vice President, MSM-UMR Alumni Association  
**LINDSAY LOMAX BAGNALL, '76**, Assistant Vice President, MSM-UMR Alumni Association  
**MARIANNE A. WARD**, Coordinator of Alumni Sections, MSM-UMR Alumni Association

# MSM-UMR ALUMNUS

A PUBLICATION OF THE MSM-UMR ALUMNI ASSOCIATION

SPRING 2002 VOL. 76, NO. 1

cover story

## REACHING FOR THE STARS . . . 4-11

**THE QUEST FOR ASTRONOMY'S  
HOLE-Y GRAIL . . . . . 9**

**TODAY, AEROSPACE CAMP.  
TOMORROW, THE UNIVERSE? . . . 11**



### CAMPUS NEWS

**CARNAHAN ENCOURAGES GRADS  
TO STEP OUT, PRESS ON . . . . . 12**

**Professor's process to strengthen  
cast iron leads to safer vehicles,  
national recognition . . . . . 13**

**FOOLING THE INTERNET WATCHDOG . . . . . 14**

***People in glass houses* . . . . . 17**

***Solar Miner III* places fourth in Australia . . . . . 18**

**And the band plays on – 75th anniversary . . . . . 22**

**BASEBALL'S 'BIG SHOW,'  
IN THE DAYS OF SHOELESS JOE . . . . . 23**

### DEPARTMENTS

**From the Editors . . . . . 2**

**Campus News . . . . . 12-23**

**Faculty & Staff Notes . . . . 20-21**

**Sports News . . . . . 24-25**

**Association News . . . . . 26-29**

**Alumni Sections . . . . . 30-35**

**Alumni Notes . . . . . 36-43**

**Memorials . . . . . 46-48**

### ALUMNI PROFILE

**RESCUE 9-11 WTC ATTACKS  
bring out the best in  
UMR alumnus . . . . . 44-45**

#### **MOVING? MAKE SURE YOUR ALUMNUS GOES WITH YOU!**

If you're moving, don't forget to send us your change of address, so you don't miss an issue of your alumni magazine.  
Send address corrections to: Records, 112-A Campus Support Facility, University of Missouri-Rolla, Rolla, MO 65409-1320

# MSM-UMR ALUMNUS

The MSM-UMR Alumni Association publishes the *MSM-UMR Alumnus* to communicate and reflect the past, current and future interests of the alumni of the Missouri School of Mines and the University of Missouri-Rolla.

## UNIVERSITY OF MISSOURI-ROLLA CHANCELLOR

Gary Thomas

## MSM-UMR ALUMNI ASSOCIATION PRESIDENT

James E. Bertelsmeyer, '66

## EXECUTIVE VICE PRESIDENT

Donald G. Brackhahn, '93

The *MSM-UMR Alumnus* is written, edited, and designed by the staff of the UMR Publications Department, the UMR Public Relations Department, and the MSM-UMR Alumni Association.

## ART & PRODUCTION EDITOR

Rebecca Frisbee, '90

## EDITORS

(Alumni) Lindsay Lomax Bagnall, '76  
(Features & News) Andrew Careaga

## ASSOCIATE EDITORS

John Kean  
Mary Helen Stoltz, '95  
Claire Denbo

## ALUMNI SECTIONS EDITOR

Marianne Ward

## ALUMNI NOTES EDITOR

Shannon Stites

## PRODUCTION ASSISTANTS

Tricia Murphy  
Joann Stiritz  
Terrill Story

## STUDENT ASSISTANT

Lindsey Davis

## SUPPORT STAFF

Tracy Wilson



*MSM-UMR Alumnus* (USPS 323-500) (ISSN 1084-6948) is issued four times per year (March, June, September, December) in the interest of the graduates and former students of the Missouri School of Mines and Metallurgy and the University of Missouri-Rolla. The *MSM-UMR Alumnus* is published by the MSM-UMR Alumni Association, Castleman Hall, 1870 Miner Circle, Rolla, MO 65409-0650. Periodicals postage paid at Rolla, Mo., and additional mailing offices. POSTMASTER: Send address changes to *MSM-UMR Alumnus*, Castleman Hall, P.O. Box 249, Rolla, MO 65402-0249.

## LETTER FROM THE EDITOR



Growing up in the 1960s, I was among the throng of American kids who hoped to become an astronaut. Like most others in the throng, only my fantasies took flight; I myself remained firmly grounded. But I explored vicariously, via TV's *Star Trek*, and to this day, my interest in space, the final frontier, remains.

So while I watched Captain Kirk and company lay waste to the Prime Directive in every episode, a young girl growing up in southwest Missouri named Janet Sellers was sitting on the front porch with her dad, gazing with awe at the canopy of stars overhead. Her father would point out constellations and tell his daughter that she could one day explore the heavens if she wanted to.

She decided that she wanted to. And she has. Last summer, Janet Sellers (now Kavandi) flew her third shuttle mission, a trip to the international space station. She is one of three alumni who have gone on to soar to great heights as NASA astronauts. All three grew up in the heyday of the space race, and now they are shaping the future of the nation's space program. While UMR is not as well known for cultivating astronauts as, say, Purdue, UMR's NASA connection has gained its share of attention. One of the three UMR grads to enter the astronaut program — Tom Akers, who has since retired from NASA to teach in UMR's mathematics and statistics department — was even featured in the February 2001 issue of *Playboy*. (No, not in the pictorials; he was quoted in an article about the space program, in which he was described as "the prototype of the modern astronaut.")

This issue's main feature is about Kavandi, Akers and the newest UMR grad to wear a NASA uniform, Sandra Magnus. Like their right stuff, rocket-jock predecessors, who are credited with building the U.S. space program during the Cold War era, this troika of space explorers can be counted among the leaders of the new NASA. While they might not be boldly going where no man or woman has gone before, they are still boldly helping to build a presence in space, the final frontier.

A handwritten signature in black ink, appearing to read "Andrew Careaga".

Andrew Careaga  
Features and News Editor

You are cordially invited to attend

# The Retirement Celebration

for

**Donald G. Brackhahn**

Vice President/MSM-UMR Alumni Association

**April 19, 2002**

**Reception 5:30-7 p.m. Buffet Dinner 7 p.m.**

**Centennial Hall, University Center-East**

**University of Missouri-Rolla**

**\$25 per person**

Don and Nancy Brackhahn have been a major force on the University of Missouri-Rolla campus and within the MSM-UMR Alumni Association for many years, giving their time, spirit and total loyalty to the campus and its alumni. We would love to have you join us in celebrating Don's career.

We are also preparing a memory book of congratulatory letters and notes. We would be pleased to include your message. Feel free to enclose it with your reservation for the celebration, or mail it under separate cover to Connie Prewett, PO Box 1962, Rolla, MO 65402.

We hope you will join us in making this a wonderful celebration for Don and Nancy!

Thank you,

*The Past Presidents of the MSM-UMR Alumni Association*

**RSVP by April 5, 2002**

*I/We will attend the celebration*

Total number: \_\_\_\_\_ Amount enclosed for meals: \$ \_\_\_\_\_ (\$25 per person)

Name(s): \_\_\_\_\_

I/We would also like to make a gift to the retirement gift fund: Amount enclosed for gift: \$ \_\_\_\_\_

I/We will be unable to attend the celebration but would like to thank Don and Nancy and send the following gift: \$ \_\_\_\_\_

Please cut along dotted line and return this slip with your check to:  
MSM-UMR ALUMNI ASSOCIATION, C/O CONNIE PREWETT, PO BOX 1962, ROLLA, MO 65402

# REACHING FOR THE STARS

cover story



Photo courtesy of NASA





Photo by Brett Coomer

## THREE UMR GRADUATES ARE SHAPING THE FUTURE OF SPACE EXPLORATION

By Andrew Careaga  
acareaga@umr.edu



It's become an American cliché, the familiar answer to a question asked of American schoolkids everywhere in the 1960s and '70s. *What do you want to be when you grow up?* the teacher would ask. The less inspired among us would recite the usual answers: firefighters, doctors, police officers. But there were always other children whose imaginations were less bridled. Those were the kids whose thoughts reached for the stars — the kids who wiped their Tang mustaches on their sleeves and answered, *I want to be an astronaut.*

The vast majority of boys and girls who gazed up into starry night skies with visions of space exploration in their heads have grown up and settled for a more down-to-earth occupation. But others pursued the dream and really did become astronauts. Three UMR graduates — **Thomas D. Akers**, AMth'73, MS AMth'75, **Janet Kavandi**, MS Chem'82, and **Sandra Magnus**, Phys'86, MS EE'90 — are among that elite group. Growing up during the heyday of the U.S. space program, they watched from below with the rest of us while pioneering "right stuff" astronauts accomplished astonishing feats. Their heroes — now household names like Alan Shepard, Chuck Yeager, John Glenn, Neil Armstrong, and Shannon Lucid — were larger-than-life characters who orbited Earth, walked on the moon, lived in space, broke down barriers, and inspired an entire generation of dreamers.

Today, Akers, Kavandi and Magnus are helping to usher in a new era in space exploration, one that could turn the stuff of science fiction into reality — much as the pioneering astronauts did in their era. While NASA's chief goal is to complete work on



# "THE WHOLE IDEA OF EXPLORING AND BEING ON THE EDGE, THAT WHOLE SENSE OF ADVENTURE, IT JUST APPEALED TO ME."

cover story

the \$60 billion international space station, a job that is scheduled for completion in 2006, the work of today's astronauts could lead to even greater achievements: inhabiting Mars, routine commercial flights into space, perhaps even the discovery of intelligent life on other planets. Akers, Kavandi and Magnus have all played a part in the construction of the space station, and are part of a bridge between NASA's storied space race past, fueled by the competition between the United States and the Soviet Union, and the more cooperative present, in which American astronauts work with Russian cosmonauts to build the international space station.

Akers, the first UMR graduate to enter the astronaut corps, joined NASA in 1987. It was an auspicious juncture in the program's history — just one year after the *Challenger* disaster claimed the lives of seven astronauts, including teacher Christa McAuliffe. Kavandi entered the program in 1995 and Magnus in 1996. Both Kavandi and Akers, who is now retired from NASA, are veterans of space flight. This summer, Magnus is scheduled to leave Earth's orbit for the first time.

Akers, who now teaches in UMR's mathematics and statistics department, can be counted among NASA's legends. He once held the American record for logging the most time walking in space, and the press has described him in heroic terms, as "the prototype of the modern astronaut, the Chuck Yeager of the new ziggurat." Kavandi, too, is gaining recognition for her time in space. She has embarked on three shuttle missions; the most recent was last summer's voyage on the shuttle *Atlantis* to install a new passageway for the international space station. And while Magnus has yet to fly into space, she was instrumental in getting the space station off the ground. Once she completes her forthcoming mission on STS-112, which will deliver equipment to help spacewalkers move around the space station's exterior, she too will enter the fraternity of space explorers.

## NO LIGHT BULB WENT OFF

For Sandra Magnus, the idea of becoming an astronaut crystallized while she was in junior high school. "It's not like I saw a film or anything to make me want to become an astronaut," she says. "No light bulb went off. It's just something I latched on to. The whole idea of exploring and being on the edge, that whole sense of adventure, it just appealed to me."

But even in the mid-1970s, just a few years after NASA astronauts first landed on the moon, the idea that a girl could grow up to become an astronaut was little more than a pipe dream. In 1978, however, something happened that made Magnus' dream suddenly more of a possibility. "I can clearly remember in 1978, when I was in high school, there was a newspaper article about the first women who were admitted into the astronaut corps," she recalls. "I remember reading that and being really happy." One of those women was Shannon Lucid, who lived in space for a record 188 days back in 1996. Until



**ON A MISSION: CLOCKWISE, FROM LEFT, SANDRA MAGNUS, JANET KAVANDI, TOM AKERS. BELOW, MAGNUS IN TRAINING. OPPOSITE PAGE, AKERS CAPTURING A WAYWARD INTEL SAT.**



Photo by Brett Coomer



recently, Lucid and Magnus, very much the astronaut she dreamed of becoming, shared an office in NASA's Johnson Space Center. Lucid is now NASA's chief scientist.

"She's just a spectacular person," Magnus says of her mentor. "She comes from a generation that had to knock down a lot of walls" to make it into NASA's elite cadre of astronauts. "She made it easier for my generation. Hopefully, I'll be able to make it easier for the next."

Prior to her current assignment, Magnus was a "capcom," or capsule communicator, in Mission Control at Houston's Johnson Space Center. The term is a holdover from NASA's early days, when staffers in Houston actually did communicate with capsules — the *Gemini*, *Mercury* and *Apollo* space capsules. Today, Magnus explains, "Capcom is the voice of the control center" to the astronauts and cosmonauts aboard the space station.

Prior to her capcom assignment, Magnus spent a lot of time from 1998 through 2000 shuttling between Houston and Russia's Star City outside of Moscow, where she helped Russian cosmonauts prepare for their trips to the space station.

Magnus came to UMR from her hometown of Belleville, Ill. She describes her studies at UMR as broadening, introducing her to engineering and a host of other disciplines. "The physics curriculum was very open to the things that interested me," she says. In addition to studying Russian, she also took courses in German, computer science and electrical engineering. After earning her bachelor's degree in physics — "a spectacular foundation" for her future at NASA — Magnus joined McDonnell

Douglas Aircraft Co. in St. Louis as an engineer. She worked on stealth technology by day, studying the effectiveness of radar signature reduction techniques, and went to graduate school at night, pursuing her M.S. in electrical engineering through UMR's Engineering Education Center in St. Louis. All the while, she kept alive her dreams of joining NASA, then gaining knowledge and experience that would benefit her next career. After earning her master's degree in 1990, she went on for her doctorate from Georgia Tech, then landed her dream job with NASA.

Although the public still thinks an astronaut's job consists solely of riding a shuttle into space and tinkering on the space station, Magnus stresses that it involves much more. "It's a combination of training, systems integration, the technical job, and dealing with the public," she says.

Still, the allure of space flight is undeniable. Magnus is looking forward to her first shuttle mission, but is already thinking about her next goal: living in space for an extended period, as Lucid did in 1996.

When asked why the public should continue to support the space program, many astronauts point to the tangible benefits that have come about as a result of space exploration — technology that gave us heart defibrillators, portable medical equipment, ultraviolet coating for sunglasses, microwave ovens and lightweight materials. But Magnus, ever the explorer, points to other aspects. "Philosophically, I think the space program represents our desire to explore as a species. I've felt a need to be a part of that exploration."

*Continued on page 8*

## MOONSTRUCK

Janet Sellers (now Kavandi) was 10 years old and visiting her grandmother in tiny Cassville, Mo., when she watched Neil Armstrong take those famous first steps onto the moon. “I remember thinking it was one of the most momentous events in world history,” she says. “I remember thinking it would be interesting to fly to the moon and look back to Earth to see what it looked like.”

Three decades later, the image of Earth as a blue marble suspended in black space — an image first captured and transmitted by the *Apollo 11* moonwalkers — is a familiar one. But Kavandi still would like to see it for herself, from the same perspective as Neil Armstrong, Michael Collins and Buzz Aldrin. “I would love to walk on the moon,” she says. “That would probably be my ultimate goal... I haven’t given up hope. I think someday we will go back to the moon.”

Kavandi completed her third flight into space last July. It was a 13-day, 5 million-mile journey to the space station to install a new air lock on the station. Kavandi was at the controls of the shuttle *Atlantis*’ robot arm, which maneuvered spacewalkers James Reilly II and Michael Gernhardt as they installed the new passageway. She also was in charge of transferring supplies and equipment within the shuttle. “The transfer was a lot like moving day at your house,” she says. “You had to make sure everything was boxed in the right box and labeled properly.” That allows staffers to transfer items in such a way that “you’d know where to find it whenever you got to your new place.”

Like Magnus, Kavandi became interested in space exploration at an early age. “It was at the elementary school level” when space first captured her attention. As a girl, she and her father would sit on the front porch of their Cassville home to stargaze and talk about space. “My father put into our minds that we could be whatever we wanted to be, regardless of gender,” she says. Also influential was an uncle who worked for NASA’s Marshall Space Flight Center in Huntsville, Ala. There, Kavandi got her first glimpse of the space agency’s inner workings and met test pilots. Back in the classroom, astronomy and space exploration were never far from her mind. “Any time that we had a choice of subjects to write about, I would choose either space or archaeology,” she says.

Space exploration proved to be the more attractive subject. But it would be several years later before she made a career of it. At Carthage (Mo.) High School, “I had a very good chemistry teacher who encouraged me to pursue chemistry.” After graduating with honors in 1977, she enrolled in Missouri Southern State College in nearby Joplin, Mo., where she earned her bachelor’s degree in



chemistry. She then headed to UMR to pursue her master’s degree in chemistry. Following graduation from UMR in 1982, she returned to Joplin, joining Eagle-Picher Industries as an engineer in new battery development for defense applications. In 1984, she went to work for Boeing in Seattle, continuing work in the energy storage area. She continued her education, getting a Ph.D. in analytical chemistry from the University of Washington-Seattle in 1990. For her doctoral dissertation, she used a pressure-indicating coating to test the aerodynamic properties of models in wind tunnels. The work led to two patents and a host of technical papers and presentations.

Despite her success in academia and with Boeing, Kavandi’s heart was set on going into space. “The more I learned about the jobs at NASA and how the training encompassed so many interesting and varied fields, the more I wanted to be an astronaut,” she says. She was among the 122 applicants selected for the astronaut corps in December 1994 and reported to NASA’s Johnson Space Center in Houston the following March. Her first shuttle assignment, in June 1998, was aboard the shuttle *Discovery*. The flight was a historic one, the ninth and final docking mission with the Russian space station *Mir*. That flight concluded the joint Russian/U.S. Phase 1 space station program. (While Kavandi was aboard *Discovery*, Magnus was helping to coordinate the Phase 1 program from Earth, shuttling between Moscow and Houston.) Between flights, Kavandi has served as a capcom in Houston’s Mission Control and in NASA’s robotics branch — where she trained on maneuvering the robotic arm for last summer’s *Atlantis* mission.

Like all astronauts, Kavandi also devotes her time to telling the public about the space program. She’s a frequent visitor to UMR, where she has spoken to participants in the 2000 Expanding Your Horizons (EYH) Conference, a university outreach to get middle school-age girls more interested in science, and UMR’s summer Aerospace Camp (see story on page 11), which she visited virtually by teleconference during the camp’s first session, in 1998. Magnus, too, has been involved in the EYH Conference — she was the keynote speaker for the 2001 meeting — and also has participated in the UMR Honors Academy. Kavandi, Magnus and Akers all have logged countless hours speaking to schools and civic groups, all in the name of promoting NASA’s mission.



"I REMEMBER THINKING IT WOULD BE INTERESTING TO FLY TO THE MOON AND LOOK BACK TO EARTH."

Being an astronaut has lost some of its luster, now that there are so many of them. The club of space travelers is not as exclusive as it once was, as a *USA Today* article — "Quick: Name an astronaut" — noted last May.

That fact is not lost on Kavandi, who thinks the media has largely lost interest in NASA missions — unless disaster strikes. "We feel that if we're not in the news, we're doing things right," she says. "A lot of kids don't see (shuttle missions) on TV like we did when we were kids.

It's certainly not as publicized as it used to be, when we were going to the moon."

Still, Kavandi and her NASA colleagues work hard to get the word out to schools, in hopes of capturing the imagination of a future space explorer. One way she does that is by showing a video that depicts the challenges of even the most mundane activities — eating, for instance — in zero gravity. Once kids see astronauts trying to catch peas floating in mid-air, they're hooked. "By the end of a presentation they're very interested. They all want to be astronauts then."

## THE QUEST FOR ASTRONOMY'S HOLE-Y GRAIL

By Mary Helen Stoltz  
mhstoltz@umr.edu

For nearly three decades, physicists and astronomers have suspected that a huge black hole lies at the center of our galaxy, near the constellation Sagittarius. While there is evidence of a massive "dark object" out there, until recently the only proof that it's a black hole has been circumstantial at best. Now a UMR graduate is leading a team of researchers on a quest that has dug up the most convincing evidence yet.

**Frederick K. Baganoff**, Phys'85, a research scientist at the Center for Space Research at Massachusetts Institute of Technology, is leading a project using NASA's Chandra X-Ray Observatory to detect X-ray emissions from what is believed to be the black hole. Baganoff's research was reported in the Sept. 6, 2001, issue of the scientific journal *Nature*.

"Either we've found a black hole, or this is a coincidence of cosmic proportions," says Baganoff. A "supermassive" black hole is one with a mass "ranging from millions to billions of times the mass of our sun," he explains.

Because some of the billions of galaxies out there have supermassive black holes at their centers, it seemed plausible to scientists that one might exist at the center of our galaxy, the Milky Way. In 1974 researchers discovered a radio source, which seemed to support that idea. Named Sagittarius A\* because it is the brightest point-like radio source in the constellation Sagittarius, this source is believed to be powered by the energy released by matter falling into a black hole.

Further evidence came in the mid-1990s, when astronomers in Germany and at UCLA watching the motions of stars at the center of the galaxy saw them moving around a large amount of mass that emitted no light. That non-luminous mass or "dark object" was determined to have 3 million times the mass of the sun.

This evidence seems to suggest all the mass is concentrated into a single, supermassive black hole; but another possibility, according to Baganoff, is that the mass could be distributed among many smaller objects in a cluster of dark stars.

NASA's Chandra X-Ray Observatory, designed to observe X-rays from high-energy regions of the universe, was launched and deployed by Space Shuttle Columbia in July 1999. The most sophisticated X-ray observatory built to date, Chandra is the X-ray equivalent of the Hubble Space Telescope, Baganoff says.

In September 1999, Baganoff's team of 11 researchers from MIT, Pennsylvania State University and UCLA used the telescope for a 14-hour look at the center of the galaxy. They detected a faint point-like X-ray signal that coincided with the location of Sagittarius A\*, only one-third arcsecond from its previously documented radio telescope location. "This was closer than anyone had ever seen, 30 times better agreement than had ever been achieved with an X-ray telescope," Baganoff says.

In October 2000 the researchers again used Chandra's telescope to search for the black hole — for a 10-hour observation. This time they hit the jackpot. Baganoff's group recorded a variation of 50 times more X-rays emitted per second. "This flare was a much larger variation than we expected," Baganoff says. Even more significant, they recorded a drop in emissions during the peak of the flare within a period of just 10 minutes. In a method similar to using the time between sonar pings to judge distance in underwater exploration, this time period allowed Baganoff to determine the size of the region of space from which the X-rays are being emitted.

"The time scale tells us it is emitted from a region of space no larger than the distance light can travel in 10 minutes — exactly where it would be expected, according to theory," Baganoff says.

Baganoff's research group is planning to try again for definitive proof of the black hole's existence this spring. "In May 2002 Chandra will look for a week at the center of the galaxy," he says. On each day they will aim an array of telescopes on the ground at the same spot to compare the X-ray signals to radio and infrared signals.



NASA/MIT/PSU



NASA/MIT/F. Baganoff et al.

**COSMIC COINCIDENCE?**  
X-ray telescope images  
of Sagittarius A\*

NOTE: Baganoff will return to campus April 25 to present a lecture on his research as part of the UMR Physics Colloquium.



## BACK TO SCHOOL

Growing up in Eminence, Mo., in the 1960s, Tom Akers wasn't one of those youngsters who dreamed of launching into outer space. He had his mind set on being a teacher. The route was circuitous — he started out as a high school principal, then became an Air Force test pilot, then a shuttle astronaut — but Akers eventually landed in the classroom. Today, he teaches in UMR's mathematics and statistics department, where he puts his NASA and Air Force experiences to good use in the form of practical problems for calculus classes. When Akers asks students to calculate the angle of flight of an F-4 flying at 40,000 feet, 60 miles away from its landing target, he is not just another math professor at the chalkboard. He's someone who has had to figure out that trigonometry problem on the fly. "Especially in the Calc 3 classes, where it's three-dimensional calculus, I have a lot of real-world examples I can show students," Akers says.

When he enrolled at UMR in 1969 to study mathematics, Akers was planning on pursuing a teaching career at the community college level. But after earning his bachelor's and master's degrees, he returned to his hometown of Eminence, along the Ozark National Scenic Riverways southeast of Rolla, where the public school superintendent "ended up talking me into becoming his high school principal." Akers pursued that job for four years. Then one day, an Air Force recruiter dropped off some literature, and piqued Akers' interest. At age 28, he joined the Air Force.

Akers was no stranger to the Air Force life. His wife, Kaye, is the daughter of a career Air Force officer, so she knew what they were getting into. His first assignment after officer training school was to Eglin Air Force Base, Fla., where he was an air-to-air missile data analyst. There, he caught the bug to fly. "I got a ride in the back of an F-4 one weekend and absolutely fell in love with it." The Air Force selected him for test pilot school in 1982. After a year of training, he was reassigned to Eglin as a test flight engineer and worked on a variety of weapons development programs, flying backseat in F-4s, F-15s, T-38s and other aircraft.

It didn't take long for Akers to want to fly higher. While at test-pilot school, he saw the walls covered with photographs of former Air Force pilots who went on to greater glory as astronauts, and he decided to follow the same trajectory. He applied for the astronaut program in 1985 and was interviewed but not selected. He applied again in 1987, and this time made the cut.

All four of Akers' shuttle missions were historic. The first, in October 1990, sent the *Ulysses* spacecraft on its

four-year journey to investigate the polar regions of the Sun by way of Jupiter. His second mission, the maiden voyage of *Endeavour* in May 1992, had him and two crew members conducting the first three-person spacewalk in NASA's history — all to capture and repair the wayward Intelsat (International Telecommunications Satellite). In December 1993, Akers was again floating in space, this time to repair the Hubble Space Telescope. His fourth and final shuttle mission, in September 1996, was a rendezvous with the Russian space station *Mir*, and to return Shannon Lucid to Earth after her record six-month stay in space.

Akers has gained his fair share of acclaim for space exploration. An article in the February 2001 issue of *Playboy* portrayed him as one of the heirs to the early astronauts, those "single-combat knights of the sixties' rocket-jock corps," as the article described them. But Akers is quick to brush aside comparisons to Chuck Yeager and company. His favorite astronaut, in fact, is John Young, a former Navy test pilot who joined NASA in 1960 and flew aboard the first space shuttle mission in 1981. Now an associate director at NASA and a technical advisor to shuttle missions, Young is very much the team player that to Akers personifies the NASA organization.

"To me, he is the ultimate astronaut," Akers says. "I admire him because he's still right there at NASA, unlike others who went on to capitalize on their fame."

When Akers delivered the address at UMR's winter 1992 commencement ceremony, he let graduates in on a little NASA secret: while spacewalkers and shuttle crews grab all the headlines, it takes a cast of thousands to ensure a single space mission's success. Six months removed from his mission to rescue the Intelsat, Akers described that effort as "not only... an example of the power of teamwork, it also illustrates how many times a few people get all the credit for a team effort."

"You'll experience this someday," he told the new grads, "but good team players don't sweat it. Indeed, an important element of being a team player is the ability to be content with your team's success and not require personal recognition. Of course a good team leader will make sure every contributor on the team gets recognized."

Today when asked about his NASA experiences, Akers stays on message. "NASA is the epitome of teamwork," he says. "We astronauts get all the attention from every shuttle mission, but there are thousands of engineers, scientists, janitors, secretaries — all doing their part. Everybody has

# HE'S SOMEONE WHO HAS HAD TO FIGURE OUT THAT TRIGONOMETRY PROBLEM ON THE FLY.

to do their part to make it successful.”

One decade as an astronaut was plenty for Akers. Today, he's living his own down-to-earth dream: teaching at his alma mater and planning his eventual retirement to a 12-acre homestead in Eminence. “I retired from NASA to come back here and have a life,” he says. “I'm doing what I've always wanted to do.”

On campus, Akers tries to keep a low profile. He doesn't talk much about his space days. Often, students in his class don't even know their instructor is a former astronaut. “Sometimes it's a month or two into the semester when someone says, ‘I didn't know you were an astronaut,’ and I say, ‘Well, I used to be,’ and leave it at that.”

Akers still performs many of the public relations functions on behalf of UMR. Every fall, he appears at the St. Louis Engineers Club's Rolla Night to speak to prospective UMR students, and he works with UMR's Aerospace Camp program in the summer. “The space camp kids — you have a captive audience with them. They're all interested in space and they're very knowledgeable. Whenever I talk to a group of kids, I always get a question

that teaches me something.” But the instruction is mutual. When describing an astronaut's job to Aerospace Camp kids, Akers offers them a glimpse into the less glamorous aspects of shuttle missions. “Everyone thinks that the only thing astronauts do is go into space,” he says. “I only went four times in 10 years. I spent a lot of time training, a lot of time on technical assignments.”

In his hour-long presentations to schools and civic groups, Akers describes some of the lesser-known duties of an astronaut: cleanup duty in space, talking to the media, and making presentations to the public. “I tell them every job has things that aren't always fun.”

But when the time comes for Akers to begin his slide show of images from his four shuttle missions, kids' eyes light up as the house lights go down. “The minute you start showing pictures, it gets quiet,” he says. “They're enthralled.”

At that moment, cleaning toilets in zero gravity seems a small price to pay for a shot at adventure. At that moment, everyone in the audience imagines living the dream — of being an astronaut.

## TODAY, AEROSPACE CAMP. TOMORROW, THE UNIVERSE?

By Mary Helen Stoltz mhstoltz@umr.edu

Could Missouri's next crop of home-grown astronauts have the same UMR connection as Tom Akers or Sandra Magnus? Organizers of UMR's Aerospace Camps hope so. Last summer, 144 kids between the ages of 10 and 13 were on campus to learn about space and aeronautics during two three-day Aerospace Camps. The campers launched rockets, flew paper airplanes, designed images on the computer, took a virtual tour of NASA's Johnson Space Center, and visited with Akers during the events. They conducted experiments focused on aeronautics and space flight and learned about the history of flight, astronomy and space exploration through computer simulations, interactive teamwork projects and hands-on experiences.

The camp is in its fourth year at UMR, and the summer 2001 event, “Explore: Space 2001,” was the first camp aimed at an older audience. “Explore” gave students ages 13 to 15 the chance to learn about aerospace engineering through participating in space flight simulations. The campers learned how to apply engineering knowledge and skills to engineering analysis. They worked with flight simulation and design, and built and flew their own model aircraft.

The aerospace camps were sponsored by UMR in association with University Outreach and Extension and Missouri 4-H. “Explore: Space 2001” was sponsored by UMR along with Columbia Aeronautics and Space Association and the NASA Missouri Space Grant Consortium.



*Wet propulsion: Aerospace Camp kids use H<sub>2</sub>O to send a plastic bottle skyward. If you're interested in learning more about UMR's summer programs, see page 27.*

Photos by Bob Phelan/Photomasters



# WINTER COMMENCEMENT 2001

Photo by Bob Phelan/Photomasters

## CARNAHAN ENCOURAGES GRADS TO STEP OUT, PRESS ON

Taking the podium at UMR's Winter Commencement ceremony, Missouri Sen. **Jean Carnahan** likened herself to St. Simeon the Stylite, who spent 40 years of his life perched atop a column from which he dispensed wisdom to passers-by. Calling Simeon "the patron saint of commencement speakers," Carnahan noted that "standing on a platform, telling others about the meaning of life, has a long and illustrious history."

But the freshman senator returned to her hometown to dispense more down-to-earth advice. "Much of

what we need to know... does not come from those of us standing on platforms," she said. "It comes from learning the hard way, in what many call the 'School of Hard Knocks.'"

Carnahan's brief speech covered a lot of ground — from a baby's first steps and first stumbles, to the terrorist attacks of Sept. 11 and the United States' response. Mixing references to Simeon with quotations from Winston Churchill and Martin Luther King Jr., Carnahan ended her speech by reciting the words of a more familiar saint, St. Paul. "He wrote these words from a prison cell:

'Putting the past behind me, and reaching forth for the things that are before me, I press on.' And so must we."

No stranger to difficulties in her own life, Carnahan was appointed to the Senate seat won posthumously by her husband, the late Missouri Gov. **Mel Carnahan**, who died in a plane crash on Oct. 16, 2000, along with their oldest son, **Randy Carnahan**, Econ'77.

Also during commencement, UMR posthumously awarded an honorary doctorate to Mel Carnahan.

### 16 receive professional degrees

Sixteen alumni and friends of UMR received honorary professional degrees during Winter Commencement in December. They are:

- **Bruce Boyd**, EMgt'85, of Kingwood, Texas, vice president of gas supply and processing for Kinder Morgan Texas Pipeline L.P. in Houston.
- **Michael Bratcher**, Psyc'81, of Bentonville, Ark., vice president and general merchandise manager for Sam's Club, a subsidiary of Wal-Mart Stores Inc.
- **Dennis Brauer**, MetE'65, of Brighton, Ill., vice president of quality and product development at Olin Corp., Brass Division.
- **Randy Carnahan**, Econ'77, served as managing partner of Carnahan, Hickle & Calvert, a general practice law firm in Rolla (posthumous).
- **Philip Chen**, MS ME'65, of Rolling Hills, Calif., chairman of Avison Inc., a Taiwan/U.S. company he co-founded in 1990.
- **Bipin Doshi**, ChE'62, MS ChE'63, of Mishawaka, Ind., chairman, president and CEO of Schafer Gear Works Inc.
- **Avery Drake**, MGeo'50, MS MGeo'52, of Washington, D.C., scientist emeritus for the U.S. Geological Survey.
- **Robert A. Kruse Jr.**, EE'81, of Pontiac, Mich., executive director at General Motors Corp.'s GM Powertrain Engineering.
- **Donald L. Packwood**, Phys'63, MS Phys'65, of Palo Alto, Calif., retired from Hewlett Packard's Semiconductor Business Group.
- **Jennifer Wang Posda**, CerE'76, of Flemington, N.J., associate director of the New Jersey Commission on Science and Technology.
- **Col. Eric R. Potts**, CE'73, of Houston, Texas, deputy director of planning design and construction for the Houston Airport System and former executive director of civil works for the U.S. Army Corps of Engineers.
- **Stephen W. Rector**, PetE'72, MS PetE'73, of Greenwood Village, Colo., the co-founder, owner and president or chairman of nine separate companies in the oil and gas industry.
- **David A. Rice**, GeoE'74, of Richardson, Texas, senior vice president and senior petroleum engineer at the Bank of Texas.
- **Mariana Rodriguez Risco**, CE'80, of Lima, Peru, the administrative vice president of the Universidad Peruana de Ciencias Aplicadas (UPC), one of several educational institutions which she has co-founded in Peru.
- **Mark X. Stratman**, CSci'73, of Dallas, a vice president at Cap Gemini Ernst & Young in Dallas.
- **Thomas R. Voss**, EE'69, of St. Louis, senior vice president for customer services for AmerenUE, a St. Louis-based utility company.

## Braking news

# Professor's process to strengthen cast iron leads to safer vehicles, national recognition

The next time you have to brake suddenly to avoid crashing into another car on the road, your safety could be due in part to the work of a UMR professor. Today's longer lasting disc brakes are one of the outcomes of research conducted by **Von L. Richards II**, the Robert V. Wolf Professor of Metals Casting at UMR. Richards' studies on "age strengthening" gray cast iron to make the alloy more durable and machinable has led to recognition from the American Foundry Society. In May, Richards will receive the society's 2002 Howard Taylor Award for a paper he wrote describing his work.

The award, named for the pioneering metals casting professor at the Massachusetts Institute of Technology, is presented to those whose research is deemed to have the greatest technical significance to the industry. Richards first presented his paper, "Age Strengthening of Gray Cast Iron, Phase 1: Statistical Verification," at the AFS's 103rd Casting Congress in 1999. He will receive the Taylor Award at the 106th Casting Conference in May.

Richards' paper proves the existence of an age strengthening behavior in gray cast irons, which are used to create a variety of automotive parts, including disc brakes and transmission parts. The age strengthening occurs after the casting process.

"We discovered that if you let the metal sit around for a while at room temperatures, it actually gets stronger over time," Richards says. "We've demonstrated that gray cast iron can be strengthened considerably over just a few hours of treatment at temperatures you can achieve in your home oven." A key ingredient in the process is nitrogen, which is abundant in Earth's atmosphere. "What better alloying element can you find?" Richards says. "It's in the air that we breathe."

Follow-up research into the process revealed that age strengthening not only increases the strength of cast iron, but also improves its "machinability," Richards says. For this reason, the process meets one of the metal casting industry's biggest challenges: developing alloys



Photo by Bob Pheasant/Photomasters

**More brakes for your buck: Vehicle owners won't need to worry about replacing worn disc brakes as often in light of a new strengthening process for gray cast iron.**

that meet car manufacturers' specifications. "One of the problems in terms of meeting automotive specifications is meeting both the strengthening and machinability requirements," Richards says. In the past, manufacturers have had to trade off between strength and machinability for certain cast iron parts, such as disc brakes. The result was disc brakes that wore down quicker than today's brakes on certain vehicles.

Richards' process is already being used by some auto manufacturers. But the age strengthening has benefits to other aspects of the metals casting industry. The process has environmental benefits, Richards says, because it allows for "dry" machining of cast-iron parts, without the use of environmentally harmful coolants. It also allows manufacturers of castings to use less metal in the process.

Richards joined the UMR faculty last August. The Wolf Professorship was created by an anonymous donor in honor of **Robert V. Wolf**, ME'51, MS ME'52, a longtime metallurgical engineering faculty member at UMR.





Photo by Bob Phelan/Photomasters

# Fooling the Internet watchdog

**Taking a bite out of cyberspace: Ian Downard discovered a flaw in a popular computer network security system.**

In Greek mythology, a three-headed canine named Cerberus guarded the underworld from intruders. But a popular computer network security system that takes its name from the mythological watchdog may not be so reliable when it comes to protecting Internet sites from denial-of-service attacks. That's the conclusion of **Ian Downard**, a computer engineering student at UMR who has analyzed the password-protection technology, Kerberos.

Kerberos (a variation in the spelling of "Cerberus") is a network-security system developed by the Massachusetts Institute of Technology and distributed for free over the Internet. This system makes networks more secure by rejecting unauthorized users from protected services, and by protecting passwords from "sniffing," or malicious eavesdropping on network traffic. Microsoft incorporated Kerberos security in its Windows operating systems, and the technology is used on many corporate and university networks.

As part of an undergraduate research project, Downard, who is from Union, Mo., tested Kerberos' stability by using two different security-testing software tools. He found that on the Internet, Kerberos may not safeguard corporate and academic networks from denial-of-service attacks, the same class of

attacks that shut down Yahoo!, eBay and other major Internet portals in the spring of 2000. Downard, now a graduate student at UMR, also demonstrated how Kerberos may be vulnerable to systematic password-guessing attacks by computer hackers.

In a paper analyzing Kerberos' authentication system, Downard points out two "major points of vulnerability" with the software program:

- "Password-guessing" attacks, in which hackers write programs that repeatedly guess a system's passwords. "The password guessing vulnerability is of concern because a well designed password-guessing algorithm can quickly guess poorly formulated passwords," Downard writes.

- Denial-of-service attacks, which could refuse authorized users access to network services such as e-mail.

Downard first reported his discovery in November 2000 on two MIT Internet forums for Kerberos

users and programmers. His posts on those forums generated a lot of interest from programmers. "For about a week, people were talking about it on those forums," Downard says. "There were about 100 different posts about how the issue should be addressed." Since then, MIT has launched a new version of Kerberos, but Downard says many organizations still use the older version.

Denial-of-service is not likely to be the work of malicious hackers, who are more interested in stealing passwords or credit card numbers than shutting down a Web site. Downard believes that the problem with Kerberos is not likely to be exploited by hackers. "There isn't that much to be gained unless you just want to cause trouble," Downard says. "You can't steal credit card numbers or passwords through a denial-of-service attack."





Cascading power outages like the one that blacked out New York City in the 1960s may fade into the past if UMR researchers are successful in their efforts to create a new switching device. Called a FACTS device — the acronym stands for “flexible alternating current transmission system” — the gadget is designed to control power flow across individual lines, thereby preventing overloads. “The devices measure the power and coordinate

with each other to control the flow,” says **Bruce McMillin**, professor of computer science. McMillin and **Mariesa Crow**, professor of electrical and computer engineering, are developing prototypes of the FACTS device through funding from the National Science Foundation.

If used by utility companies, FACTS devices could eliminate the industry’s practice of instituting “rolling” blackouts to ease the load on insufficient electric lines. Rolling blackouts were common in California

during last spring’s energy shortage. “Currently, power flow follows the laws of physics, flowing along the path of least impedance,” says Crow.

As the California crisis demonstrated, getting power from the generator to the consumer can become a problem when lines are congested. The FACTS devices would allow the power flow to switch to a lesser-used line when transmission corridors become overloaded. “If there aren’t enough lines,” Crow says, “the system will cut back power — schedule it optimally — so the least number of people are affected.”

Photo by Bob Phelan/Photomasters



**Bruce McMillin and Mariesa Crow**

## Getting the FACTS on power problems

If used by utility companies, FACTS devices could eliminate the industry’s practice of instituting “rolling” blackouts to ease the load on insufficient electric lines.



Photo by Bob Phelan/Photomasters

## CAMPUS FLIPS THE SWITCH on new POWER ELECTRONICS LAB

The power is on for a new laboratory devoted to the study of electronic power systems. Funded through \$75,000 from the National Science Foundation and \$50,000 from the Ameren Foundation, the philanthropic arm of St. Louis-based utility company Ameren Corp., the Ameren Power Electronics Laboratory was officially opened during a ribbon-cutting ceremony Dec. 14. The lab, located in Emerson Hall (the EE building), will help UMR’s electrical and computer engineering department keep its course offerings current with the needs of industry.

“Power electronics are quickly becoming the technology of choice for the control of electric power,” says lab director **Steven Pekarek**, assistant professor of electrical and computer engineering.

“Our students need to understand how these systems work, as they will be

involved with them when they graduate and enter the power electronics industry.”

**Thomas R. Voss**, EE’69, senior vice president for customer services for Ameren, was on hand to dedicate the new lab. Working with Pekarek are electrical and computer engineering faculty members **Badrul Chowdhury**, **Norman Cox** and **Mariesa Crow**, as well as **Josh Williams**, a Ph.D. candidate in electrical and computer engineering. In addition, seven current and former undergraduate students have been involved in developing the lab over the past 18 months. **Jim Cale**, ECE’01, was the principal developer of much of the hardware. He has been assisted by seniors **Steve Brouwer**, **Andreas Koenig**, ECE’01, **Jeff Wooldridge** and **Phil Beccue**; junior **Nick Benavides**; and **Krista Ott**, ECE’01.

## Tracing the 'dean's' circuitous writing career

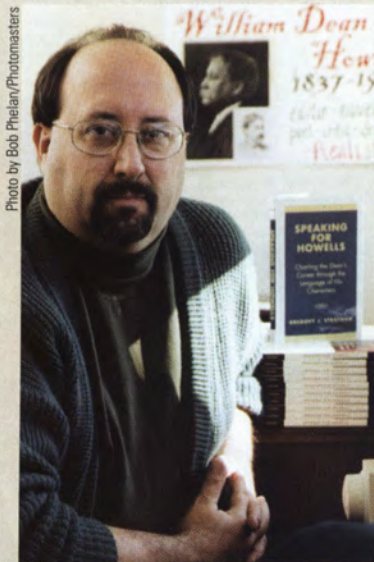


Photo by Bob Pheilan/Photomasters

**Greg Stratman, English professor**

The career of author William Dean Howells followed a circular path, from its roots in romanticism through realism and back to romanticism. The study of the language in his works illustrates this evolution, says **Greg Stratman**, adjunct assistant professor of English at UMR and the author of *Speaking for Howells: Charting the Dean's Career Through the Language of His Characters*. The book, published in 2001 by University Press of America, grew out of Stratman's research on Howells during graduate school.

Stratman, who also serves as academic coordinator of the UMR Applied Language Institute, first began researching Howells as part of a course on the study of the literary

dialect of several writers of the period. Most famous for his novel *The Rise of Silas Lapham*, Howells was a prolific author during the late 1800s who was known as the "dean of American letters." He wrote short stories, novels, plays, poetry, campaign literature and hundreds of editorials, and had thousands of letters published, says Stratman. In addition, he served as editor of several different journals, including *The Atlantic Monthly* and *Harper's*.

"Howells believed literature should be a reflection of real life," says Stratman. "He felt the subject matter in the works of Hawthorne and Poe was too fantastic, too unbelievable, too unreal."

## People in glass houses may

**B**uilding a house out of glass sounds impractical, if not absurd. But **Gustavo Tumialan**, MS CE'98, PhD CE'01, is trying to get the construction industry to think seriously about glass as a building material. And the construction industry is taking notice. Last October, a paper by Tumialan, a research engineer in UMR's Center for Infrastructure Engineering Studies, received the Best Applications Paper Award at Composites 2001, the convention of the Composites Fabricators Association.

Tumialan's paper describes a process to strengthen concrete walls with lightweight materials reinforced with glass fibers. The material can be fashioned into reinforcement bars, which can then be

**Building with glass: Gustavo Tumialan**

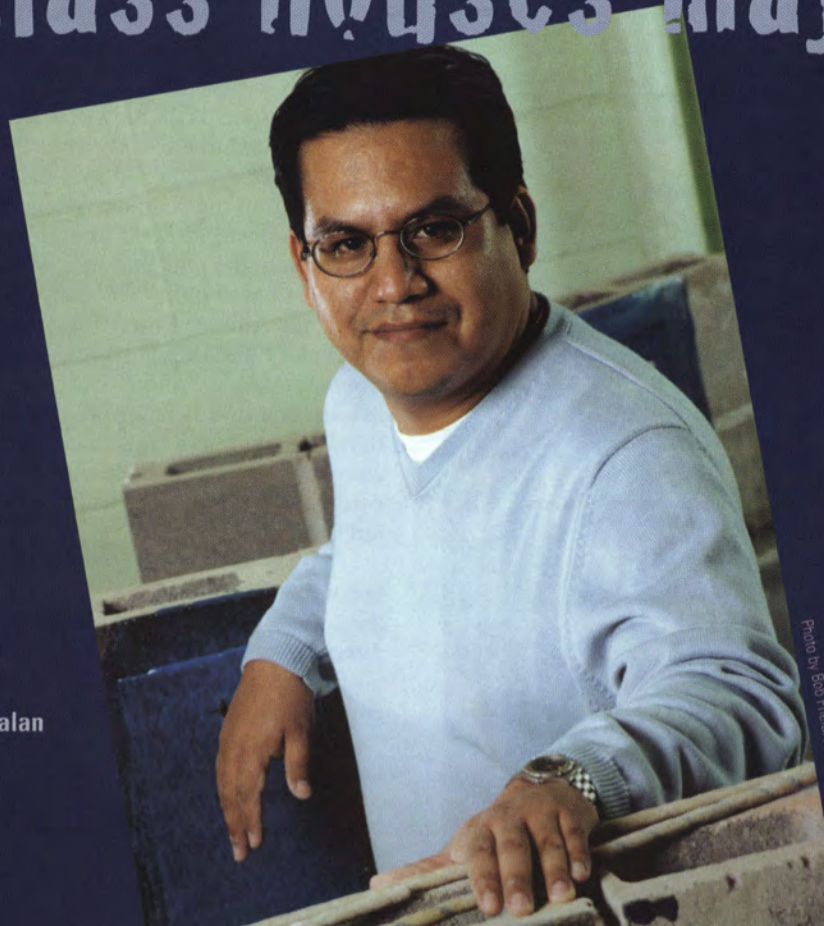


Photo by Bob Pheilan/Photomasters



## UMR aboard on the board

With the appointment in January of **Vicki Eller**, EE'00, as the student representative to the University of Missouri Board of Curators, UMR now has two alumni serving on that board. The other is **John Mathes**, CE'67, MS CE'68, a member of the Board of Curators since 1997 and current president of the board.

Eller, 27, will complete her master of science degree in electrical engineering in May. She then plans to pursue a Ph.D. in electrical engineering at UMR. Eller also works as a programmer/analyst in UMR's Instructional Software Development Center. She is president of UMR's University Orators Chapter of Toastmasters International and is a member of Eta Kappa Nu, the electrical engineering honor society.

Photo by Bob Phelan/Photomasters



**Vicki Eller,**  
student representative

## Expert in intellectual history is newest Weiner professor

**Charles C. Alexander**, Distinguished Professor of History at Ohio University, recently joined the UMR faculty as the second Maxwell C. Weiner Distinguished Professor of Humanities. The author of 11 books on a variety of topics in American history covering social, intellectual, cultural, technological and political aspects; Alexander's newest work takes on the subject of baseball. *Breaking the Slump: Baseball in the Depression Era* is due this spring from Columbia University Press.

The Weiner professorship, established in 1999 by a gift from the estate of Weiner, EE'41, is rotated annually or biennially among academic departments in the UMR College of Arts and Sciences. Alexander is working and teaching as a member of the history department at UMR.



**Charles C. Alexander,**  
distinguished professor

# be safer during quakes

inserted through concrete blocks, or rolled into strips that can be plastered to the outside of walls as a laminate. In either form, the material in laboratory tests has been shown to improve a concrete wall's resistance to seismic shock.

Tumialan's paper describes collaborative efforts by researchers at UMR and the University of Padua in Italy with masonry students at Rolla Technical Institute. The researchers placed laminated sheets on concrete walls built by the masonry students, then tested the walls to determine how effectively the materials strengthened the walls. The researchers also embedded composite bars in the mortar joints of the walls and subjected those sections to the same tests. The researchers simulated

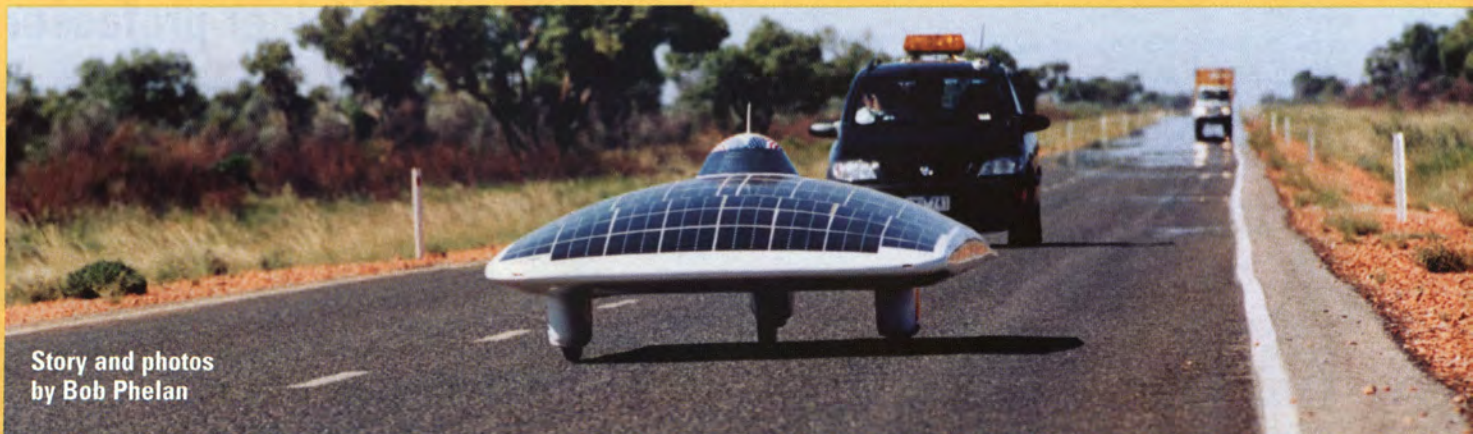
earthquake conditions to determine how well the reinforced walls would hold up under the stresses. In some tests, the composite materials doubled the wall samples' capacity to withstand seismic damage, says Tumialan, the son of fellow alumnus **Pedro Tumialan**, GGph'68.

The award-winning paper was co-authored by **Antonio Nanni**, the Vernon and Maralee Jones Missouri Distinguished Professor of Civil Engineering, and Antonio Morbin and Claudio Modena, both of the University of Padua. Morbin spent six months at UMR as a visiting scholar conducting research on masonry strengthening.

The construction industry has not yet adopted the use of these composite materials, but UMR has demonstrated

their effectiveness in several field tests. The material has been used in bridges throughout Missouri, including St. Louis, Kansas City, St. James and Columbia. UMR also held a technical seminar on the use of these materials last fall in St. Louis during the annual meeting of the Masonry Society. The seminar, held at the Lemay Center for Composites Technologies, attracted engineers, manufacturers and faculty members from throughout the United States.

# Solar Miner III places fourth in Australia's



Story and photos  
by Bob Phelan

In an 1,800-mile trek across the Australian Outback, UMR's *Solar Miner III* finished fourth in what is considered the world championship of solar car racing. The UMR vehicle, designed and built by students, competed in a field of 28 solar-powered cars from Germany, France, England, the Netherlands, Japan, Canada and the United States. Racing in the open class against more heavily-funded opponents, UMR charged from its 17th-place finish in the 1999 race to challenge the University of Michigan — UMR's rival from last summer's American Solar Challenge — in a heated battle for third-place honors.

UMR's 14-member team, coached by **Douglas R. Carroll**, PhD EMch'91, associate professor of basic engineering, raced from the tropical heat and humidity of Darwin, on the north-central coast of Australia, to the temperate climate of Adelaide on the south Pacific Ocean. The course was run entirely on the Stuart Highway, which is similar to old U.S. Route 66, on which the American Solar Challenge was run last July. In its heyday, Stuart Highway, a mostly two-lane rural blacktop road, was a major force in Australia's economic development, much like Route 66 was in America's.

A Dutch team, *Alpha Centauri*, won the World Solar Challenge by using high-efficiency solar cells that helped the team shatter the course record set by Honda in the 1996 race. Second-place honors went to the defending champion Australian entry, *Aurora*. UMR fought hard to overtake the University of Michigan's *M-Pulse* racer, catching up at a control point late on the fourth day, only to have Michigan remain in clear skies while UMR was slowed by cloudy conditions. The only other American car in the race, *Solar Motions*, also passed UMR near the end of the race, but was disqualified for serious rule violations.

Designated 30-minute media stops along the route allowed each team to change drivers, briefly recharge

their batteries, and give enthusiastic local residents a chance to see the cars and ask questions about how the cars are designed, built and operated. The Outback, Australia's normally arid and sparsely populated interior, was unusually green and vibrant due to higher than normal spring rainfall in the weeks before the race. The moist conditions kept down the dust, increasing driver visibility and easing the strain of what



UNDER THE SUN DOWN UNDER: From photo opportunities to fourth place finish, UMR's



# World Solar Challenge

driver **Eric Pieper** called a “four-hour-long roller-coaster ride” of his shift behind the controls of UMR’s three-foot high vehicle. Among the challenging conditions faced by the drivers were the Outback’s famous “road trains,” huge multi-trailer trucks that deliver goods throughout the country’s most remote areas, kangaroos and even enormous lizards that wandered out onto the lightly-traveled roadway.

At the end of the race, UMR’s entry won the prestigious Sunraycer Award, presented by General Motors to the team exhibiting exceptional design progress and innovation. *Solar Miner III* was recognized for the application of special lightweight, high-strength body panels. General Motors and other manufacturers have incorporated many ideas developed by the solar cars in production of electric or hybrid vehicles now on the market in many parts of the world.

UMR has been a consistent power in American solar racing, winning the national championship in the Sunrayce 99 event and coming in a close second in the 2001 American Solar Challenge. The team intends to be on the road again in the 2003 U.S. race.



solar car team endured heat and exhaustion during the 2001 World Solar Challenge.



**SOLAR-POWERED LIVING:** UMR students and faculty meet to plan out the design for an 800-square-foot solar-powered home.

## Building a place in the sun

Solar energy doesn't just power cars. It also powers homes, as a group of UMR students will demonstrate in September. The newest student design team at UMR is busy drawing up plans for a solar-powered house that students will actually live in this September. The project is part of the Solar Decathlon, a new competition sponsored by the U.S. Department of Energy and the National Renewable Energy Laboratory, the same organizations that created solar car competitions. The UMR Solar Home Team is one of 14 student groups from U.S. colleges and universities that will build an 800-square-foot home designed to accommodate a modern lifestyle. The groups will set up their own solar village in September on the National Mall in Washington, D.C. For more information about the UMR Solar Home Team, visit the team's Web site at [www.umn.edu/~sunhome](http://www.umn.edu/~sunhome) or call (573) 341-6794.



### A female first Mariesa Crow named associate dean



**Mariesa Crow**, a member of the UMR electrical and computer engineering faculty since 1991, last fall became the first woman appointed to an associate dean's post in the School of Engineering at UMR. She became associate dean of research and graduate affairs for the UMR School of Engineering on Oct. 1, replacing **Lokesh R. Dharani**, who had held that position since 1996.

Crow is known for her research in the area of electrical power systems. She also initiated a National Science Foundation-sponsored program at UMR to attract more Ph.D. candidates into power electronics. In addition to her administrative appointment, Crow continues as a professor of electrical and computer engineering.

### Administrative changes in School of Mines and Metallurgy



Last fall saw several administrative changes in the UMR School of Mines and Metallurgy. **Ron Kohser** (left), a member of the metallurgical engineering faculty since 1975, became chair of that department in October, replacing John Watson, who became dean of the University of North Dakota School of Engineering and Mines.

Kohser was serving as associate dean for instruction in the School of Mines and Metallurgy at the time of his new appointment. **Jeffrey D. Cawfield**, professor of geological engineering, replaces Kohser in that position. Cawfield joined the UMR faculty in 1987.

In addition, **Christopher W. Ramsay**, MetE'83, MS MetE'85, an associate professor of metallurgical engineering, replaces Cawfield as assistant director of UMR's Freshman Engineering Program. Ramsay is UMR's Iron and Steel Society Professor of metallurgical engineering.

### History professor receives teaching award

**Larry Gragg**, UMR professor of history, is the recipient of the 2001 Governor's Award for Excellence in Teaching. Missouri Gov. Bob Holden and members of the Missouri Coordinating Board for Higher Education recognized Gragg during the Governor's Conference on Higher Education last December in Kansas City, Mo.

Gragg, who is also UMR's archivist, served as chair of the UMR history department from 1992 to 1998. A member of the UMR history faculty since 1977, he is an expert on the Salem witch trials, Colonial America, Revolutionary America and the history of the American family. He is the author of three books. A fourth, *Being Englishmen Transplanted: The English Colonization of Barbados, 1627-1660*, will be published by Oxford University Press.

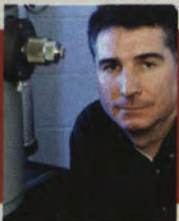


### Dharani joins fellowship of MEs



**Lokesh R. Dharani**, professor of mechanical and aerospace engineering and engineering mechanics at UMR, became a fellow of the American Society of Mechanical Engineers last fall. A UMR faculty member since 1982, Dharani is known for his research contributions in the fields of composite materials, micromechanics and the mechanics of brittle matrix composites. He also holds two patents for creating a sturdier floor for flatbed trailers. The flooring involves the use of fiber-reinforced composite materials which, when combined with the strips of hardwood lumber traditionally used for flooring, result in a stronger and more durable material for the trucking industry.

### Miller named to direct new materials lab



**F. Scott Miller**, PhD MetE'99, assistant professor of metallurgical engineering, has been named director of UMR's new Advanced Materials Characterization Laboratory (AMCL). The lab provides analytical services for researchers involved in the study of metals, minerals and other materials. Miller joined UMR in 1987 as a teaching associate in the School of Mines and Metallurgy.

If you would like more information about any news items in campus news please contact UMR Public Relations at (573) 341-4328 or via e-mail at [newsinfo@umr.edu](mailto:newsinfo@umr.edu)



### Multiple honors for UMR's 'glass man'

**Delbert E. Day**, CerE'58, Curators' Professor emeritus of ceramic engineering, was honored by the American Ceramic Society last fall for his groundbreaking research on glass applications in two very different fields: hazardous materials and biomedical applications.

Day received the George W. Morey Award from the society's Glass and Optical Materials Division in recognition of his research on iron phosphate glasses, a new class of materials created to safely encapsulate hazardous and radioactive wastes. He also received the Samuel Geijsbeek Award from the society's Pacific Coast Section for his development of glasses and materials used in the biomedical field. He received the awards during the American Ceramic Society's Pacific Rim meeting in November in Maui, Hawaii.

In December, Day received the first-ever John W. Claypool Award for Medical Research. The award was created by **John Claypool**, ME'60, retired vice president of Claypool Pump and Machinery Co. of St. Louis, to support medical research.

A member of the UMR faculty since 1961, Day is well known for his development of microscopic glass beads that can be used to treat liver cancer and other forms of cancer. The beads can be irradiated and injected into a patient. They are now being marketed under the name TheraSphere.

UMR's public radio station, KUMR, has a new general manager whose voice is familiar to longtime listeners. **Jim Sigler**, a member of the KUMR staff since 1985, has replaced Janet Turkovic Woodward, the station's manager from 1991 until her retirement last November.

A 100,000-watt public radio station serving south-central Missouri from its studios on the UMR campus, KUMR can be heard at 88.5 FM in Rolla and 96.3 FM in Lebanon, Mo. The station also broadcasts live over the Internet at [www.kumr.org](http://www.kumr.org).

Sigler joined KUMR as a producer/host in 1985. He continues to host and produce two programs: "Sounds Eclectic," heard on weekday mornings, and "Special Blend," which airs on Sunday nights. He served as producer/director of news and public affairs from 1988 through 1991, and had been program director since 1991.



### Familiar voice is new KUMR general manager



### New NATO panel chair counters cyber-terrorism

As the new chair of the NATO Research and Technology Organization's Information Systems Technology Panel, **Ann Miller** can be counted among the Americans enlisted in the war against terrorism. The IST Panel, composed of information technology experts from NATO's 19 member nations, is charged with advising NATO on issues related to communications, computing, intelligence, robotics and related issues. Since the Sept. 11 terrorist attacks, however, the panel has focused more intensely on counter-terrorism.

"We've always had an emphasis in computer and network security, but now we've been asked to see what we can do to redouble our efforts in the area of counter-terrorism, specifically cyber network attacks," says Miller, the Cynthia Tang Missouri Distinguished Professor of

Computer Engineering. Miller was elected chair of the NATO panel during the group's October meeting in Warsaw, Poland, and will assume the chair at the group's meeting in May in Lisbon, Portugal.

"Counter-terrorism was definitely one of the top issues" discussed at the Warsaw meeting, says Miller, who before joining UMR in 1999 was the Navy's deputy assistant secretary for communications, computing, intelligence, electronic warfare and space. At the Warsaw meeting, Miller and two other panel members — one from Canada and one from Great Britain — were charged with recommending measures NATO nations can take to reduce the threat of information warfare or cyber-terrorism. "We'll be reviewing our current programs as well as looking at new areas," says Miller.



### Outstanding TA named

**Murat Atmaca**, a teaching assistant in UMR's mathematics and statistics department, was named the Outstanding Graduate Teaching Assistant for 2001 by the UMR Parents' Association. The association presented the \$500 award and certificate during UMR's Family Day, which was held Oct. 20. Atmaca is working on a Ph.D. in mathematics at UMR.

Each year, the award recipient is determined based on student evaluations done at the close of each semester. Results of the student evaluations are compiled by the UMR Academic Council Committee on Effective Teaching.



# And the band plays on...

UMR's band program has been a part of campus life since it was formally organized in the fall of 1927. In May, UMR will commemorate the band program's founding with the "75th Anniversary of the Bands," a three-day celebration featuring roundtable discussions, an alumni reading session, and concerts, concerts, concerts.



Photos by Bob Phelan/Photomasters

The celebration will be held Friday, May 3, through Sunday, May 5, on campus. For information on ticket availability for any of the performances, contact the UMR Ticket Window at (573) 341-4219.

During the weekend, the Jazz Ensemble, Trumpet Choir, University Symphony Orchestra and Symphonic Band will perform in concert. At 10 a.m. May 5 in Leach Theatre, the musicians will hold a dress rehearsal for that day's main concert. In addition, alumni reading sessions will be held at 2 p.m. Saturday,

May 4. Alumni are invited to bring their instruments and join current students in sight-reading pieces.

*Other events include:*

- **A Saturday night banquet** to honor the past and the future of the band program. All band alumni and their spouses are invited to attend as well as any past directors and community members who have helped the UMR band program grow throughout the years.

- **The concert** at 2 p.m. Sunday, May 5, in Leach Theatre of Castleman Hall. Four composers have been commissioned to create works specifically for the UMR Band celebration. Those works will be performed in addition to other selections.

*The composers are:*

- **Timothy Mahr**, who received the 1991 ABA/Ostwald Original Band Composition Award from the American Bandmasters Association Competition for his composition "The Soaring Hawk."

- **Andrew Boysen Jr.**, an assistant professor in the music department at the University of New Hampshire, where he conducts the wind symphony and teaches conducting.

- **Barry Morse**, a prolific free-lance composer who resides in Portland, Maine. His wide range of compositions have been performed throughout the world.

- **Younghae Kim**, a graduate of the New England Conservatory living in Rolla.

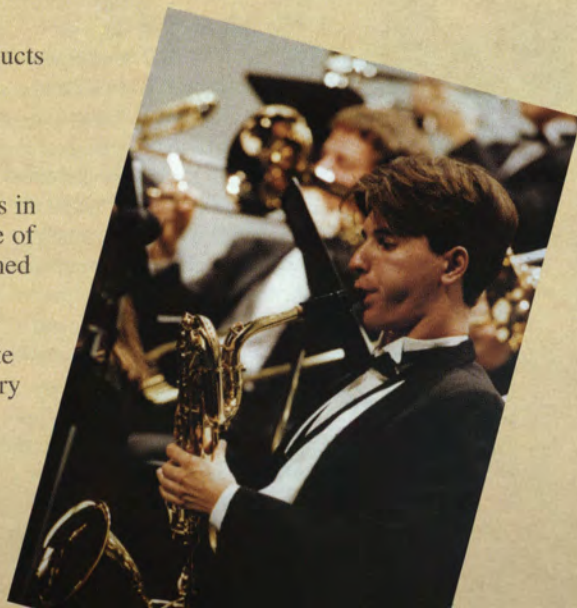


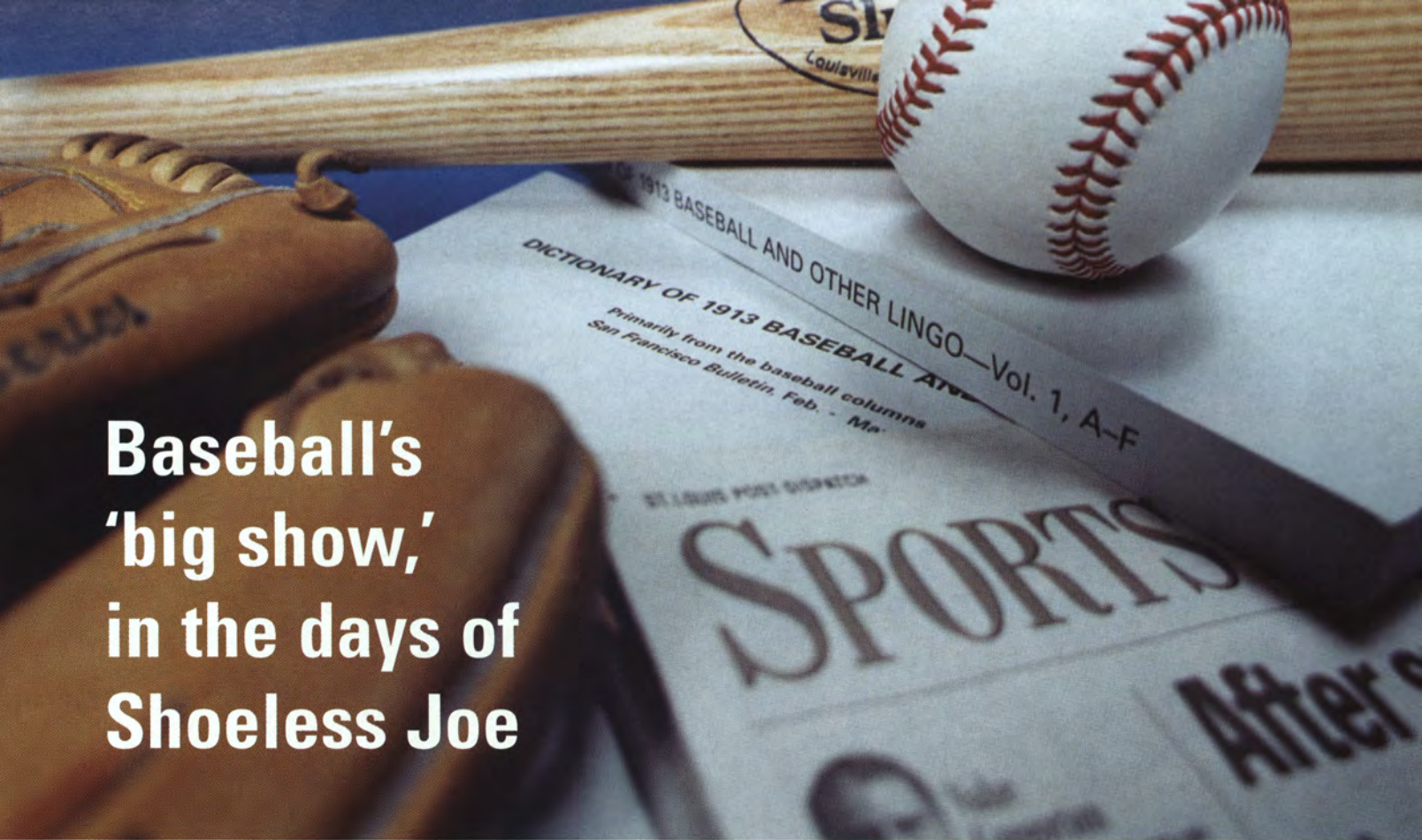
"Timothy Mahr and Younghae Kim will attend the celebration to see the debut of their works," says **Don Miller**, a lecturer in the philosophy and liberal arts department and current director of UMR's band program.

**Frank Hall**, a UMR computer science student and member of the band, is compiling a history of the band program and is seeking historical information from alumni.

"His long-term plan is to put the histories together as a book," Miller says. If you have a memorable story about the band from when you were in school or information about a past era of the band program, send it to Hall by e-mail at [fhall@umr.edu](mailto:fhall@umr.edu).

For more information on the celebration, contact Miller at 127 Castleman Hall, Rolla, MO 65409, call (573) 341-4698 or e-mail [dkmiller@umr.edu](mailto:dkmiller@umr.edu). Information may also be found at the program's Web site at [www.umr.edu/~band/](http://www.umr.edu/~band/).





# Baseball's 'big show,' in the days of Shoeless Joe

Photo by Bob Phelan/Photomasters

**M**oviegoers may have first heard about baseball's "Big Show" from Crash Davis, the veteran minor leaguer played by Kevin Costner in the 1988 film "Bull Durham." But **Gerald Cohen**, a UMR professor of foreign languages and expert on word origins, says the baseball term originated three-quarters of a century earlier — on the pages of 1913 editions of the *San Francisco Bulletin*.

Cohen includes "the big show" and other baseball vocabulary in his recently published first volume in a three-volume set of reference works on baseball terms. The book, *Dictionary of 1913 Baseball and Other Lingo*, is taken primarily from the baseball columns of the *Bulletin* from February through May of 1913. The dictionary was published by Cohen at UMR with all examples provided in context. It is intended for lexicographers, researchers and baseball buffs interested in the lingo of the sport.

Volume 1, which covers terms from the letters A through F, is full of fascinating trivia for baseball fans. "For example, 'aggregation' was a standard term for team," says Cohen. "'The big brush' was the major leagues, as were 'the big show,' 'the big circus,' and 'the big tent leagues,' while 'fast society' could refer either to major league baseball in particular or professional baseball in general."

Cohen's project began as an effort to get to the bottom of the term "jazz," which is commonly thought to have musical roots. But according to Cohen, the word was

actually applied to baseball, meaning "vim," "vigor" and "fighting spirit," before it acquired its musical meaning.

"The first appearances of the term came in the baseball columns of the 1913 *San Francisco Bulletin*," says Cohen, adding that other researchers have preceded him on this point. "Gradually, the original project of researching jazz, while still very much alive, has been overshadowed by the other lexical material. My overall goal now is to see where a detailed study of the early baseball columns may lead."

Cohen plans to publish the second volume in 2002 and the final volume the following year. Cohen began teaching at UMR in 1968. For the past 30 years his primary research interest has been etymology, especially of English. He has written about Missouri place names, and has frequently been cited by the popular news media, including *The New York Times Magazine* and *Entertainment Weekly*. His interest in baseball goes back to his childhood in New York City. "If I only had a stronger 'whip,' I, too, might have been able to get by in 'fast society.'"

As for the use of "jazz" in baseball lingo, Cohen, like an ace moundsman, isn't telegraphing his pitch. "That comes along in volume two," he says. "There are loads of examples."

## All-region honors for soccer duo



Photo by Bob Phelan/Photomasters

A pair of players from the UMR men's soccer team, **Hass Jassim** (pictured above) and **John McQueary** (below), made the Central region's all-region team for 2001. The teams were announced by the National Soccer Coaches Association of America.

Jassim and McQueary were named to the second team for their play. Jassim, a senior, was selected as a defender. He did not score during the year, but played a large role in preventing goals. UMR posted six shutouts during the 2001 season. McQueary was named as one of the forwards despite having his junior year cut short due to a broken collarbone late in the season. He finished the year with three goals and four assists for 10 points.



Photo by Bob Phelan/Photomasters

The Miners posted a 10-4-2 record last fall, finishing as the fourth-ranked team in the Central region. It was the third 10-win season in the last four years for the Miners. The team finished strong, going 8-2-2 in the final 12 games while allowing only 10 goals.

Jassim and McQueary were also selected to the NSCAA Academic All-Region squad along with **Aaron Ogorzalek**. Both the Miners and Lady Miners were among the teams that received academic All-America awards from the national organization.

## Kimmel named football Academic All-American

Known for hard-hitting play on the football field, **Curt Kimmel** (pictured below) hits the books hard as well. The junior defensive tackle for the UMR football team was named to the 2001 Verizon Academic All-America team. Kimmel, a civil engineering major from Ringling, Okla., was a second-team selection to the squad, which is chosen by the College Sports Information Directors of America. Kimmel recorded 30 tackles for the Miners during their 2001 campaign.



Photo by Bob Phelan/Photomasters

Kimmel's academic talents also have been recognized by the Mid-America Intercollegiate Athletics Association, which twice has honored him with the MIAA Presidential Scholar award for maintaining a 4.0 grade-point average. Kimmel also is a two-time member of the MIAA Commissioner's academic honor roll.

## 12 qualify for NCAA Swimming Championships

A dozen members of the UMR swimming team made the automatic qualifying marks for the NCAA Division II Swimming Championships, which were held in March in Orlando, Fla. Senior **Dave Belleville** had already qualified in two individual events prior to a December meet in Little Rock, Ark., when he made it in another five relays. In the 200-yard medley relay, Belleville was joined by **Seth Aldrich**, **Jeremy Evans** and **Jack Pennuto** as they won the event in a time of 1:34.00. Belleville joined Aldrich, Evans and **Phil Heller** in qualifying in the 400-medley relay with a time of 3:26.15.

In the freestyle relays, the Miner team of Belleville, **Mike Lach**, **Sean O'Donnell** and **Bram Olson** qualified in the 200-yard event — an event in which the Miners won the national championship in 2001 — with a time of 1:23.20, while the 400-yard quartet of Belleville, **Bill Robbins** (who left the team following the holidays), Olson and O'Donnell established a new school record of 3:04.06 in their qualifying effort.

The final qualifiers came in the 800-freestyle relay, in which the UMR team won its race but narrowly missed the minimum standard for that event. The group of Belleville, Olson, **Vanja Dezelic** and **Mike Minard** was able, however, to qualify in a time trial following the race with a time of 6:52.75.

Two more swimmers, **Ryan Campbell** and **Emrah Kurt**, qualified during the Central States Invitational in February, where the Miners finished second as a team.

On an individual basis, the Miners got winning performances from Belleville in the 50- and 100-yard freestyle in times of 20.71 and 45.58 seconds, respectively; and Evans in the 100-yard breaststroke in 57.48.

Aldrich and O'Donnell automatically qualified in the 100-backstroke — Aldrich doing so in his leadoff leg of the 400-medley relay. Evans also surpassed the individual qualifying mark in the 100-yard breaststroke.



Photo by Bob Phelan/Photomasters

## Okwuonu selected to All-MIAA first team

UMR senior tailback **Ken Okwuonu** (above), who finished his career with the Miners this past season as the school's second-leading career rusher, was named to the Mid-America Intercollegiate Athletics Association's all-conference team as a first-team selection. He was one of 10 Miner players selected to this year's squad.

Okwuonu is the first Miner to receive first-team all-league honors since 1993, when a trio of Miners were named as such. He is also the first player from a Miner offensive unit to earn first-team status since 1986, when wide receiver **Ron Reimer**, EMgt'89, and offensive tackle **Eric Wiegand** were first-team picks.

Selected to the second team were junior linebacker **Shawn Stephens**, senior free safety **Drew Bullocks** and junior tight end **Ken Ennis**.

Okwuonu finished the 2001 season with 814 yards on 216 carries and five touchdowns. His 106-yard performance in his final game moved his career total to 3,061 yards, second to **Terry Ryan's** total of 3,432 yards on the Miners' all-time list.

WWW.UMR.EDU/~SPORTS

## 2002 SPORTS SCHEDULES

*(All times Central and subject to change)*

### BASEBALL

March 8-15 – Gulf Coast Classic (Panama City, Fla.)  
 March 20 – PITTSBURG STATE (DH),\* 1 p.m.  
 March 23 – at Missouri Southern (DH),\* 1 p.m.  
 March 24 – at Central Missouri State (DH),\* 2 p.m.  
 March 27 – MISSOURI SOUTHERN (DH),\* 1 p.m.  
 March 28 – at Southwest Baptist (DH),\* 1 p.m.  
 April 3 – CENTRAL MISSOURI STATE (DH),\* 1 p.m.  
 April 6 – WASHBURN (DH),\* 1 p.m.  
 April 7 – WASHBURN,\* 12 p.m.  
 April 10 – at Pittsburg State (DH),\* 1 p.m.  
 April 13 – at Emporia State (DH),\* 12 p.m.  
 April 14 – at Emporia State,\* 12 p.m.  
 April 16 – EVANGEL (DH), 1 p.m.  
 April 20 – NORTHWEST MISSOURI STATE (DH),\* 1 p.m.  
 April 21 – NORTHWEST MISSOURI STATE,\* 12 p.m.  
 April 23 – SOUTHWEST BAPTIST (DH),\* 2 p.m.  
 April 27 – at Truman (DH),\* 2 p.m.  
 April 28 – at Truman,\* 12 p.m.  
 May 4 – MISSOURI WESTERN (DH),\* 1 p.m.  
 May 5 – MISSOURI WESTERN,\* 12 p.m.  
 May 10-12 – MIAA Tournament

### SOFTBALL

March 16-17 – at William Woods Tournament  
 March 20 – MISSOURI-ST. LOUIS (DH), 2 p.m.  
 March 22-23 – at Lincoln Tournament  
 March 25-26 – at Florida Spring Fling (Pensacola, Fla.)  
 March 28-30 – at West Florida Tournament  
 April 2 – MISSOURI SOUTHERN (DH),\* 2:30 p.m.  
 April 5 – EMPORIA STATE (DH),\* 3 p.m.  
 April 6 – WASHBURN (DH),\* 1 p.m.  
 April 8 – TRUMAN (DH),\* 3 p.m.  
 April 10 – at Pittsburg State (DH),\* 3 p.m.  
 April 13 – at Lincoln (DH),\* 1 p.m.  
 April 14 – at SIU-Edwardsville (DH),\* 1 p.m.  
 April 16 – at Central Missouri State (DH),\* 3 p.m.  
 April 20 – at Northwest Missouri State (DH),\* 1 p.m.  
 April 21 – at Missouri Western (DH),\* 12 p.m.  
 April 24 – at Southwest Baptist (DH),\* 3 p.m.  
 April 26-27 – at Central Missouri State Tournament  
 May 3-4 – at MIAA Tournament (Gladstone, Mo.)

\*Denotes MIAA game

# Member Benefits

As an alumnus of MSM-UMR, you are automatically a member of the MSM-UMR Alumni Association and are entitled to:

## MSM-UMR:

chairs, lamps, watches, rings, pendants, Platinum/Gold MasterCard, license plates for Missouri residents

## Career Assistance:

UMR's Career Opportunities Center will help you in your job search!

## Services:

Online Community, including searchable directory. Access to alumni office via e-mail (alumni@umr.edu).

Alumni locator service to help you find lost friends.

Address update service so you don't miss your MSM-UMR mail.

To take advantage of these offers, contact the alumni office:

**MSM-UMR Alumni Association**  
Castleman Hall  
University of Missouri-Rolla  
1870 Miner Circle  
Rolla, MO 65409-0650

Phone: (573) 341-4145

Fax: (978) 926-7986

E-mail: alumni@umr.edu

Web site: www.umr.edu/alumni

## New endowments accepted by association

The Executive Committee of the MSM-UMR Alumni Association accepted three new endowment funds at their Dec. 17 meeting.

- The **John and Dorcas Park Scholarship**, established in their honor by John B. Toomey '49, will be awarded with preference to freshmen and transfer students.
- The **Class of '50 Scholarship** was established through gifts from class members in honor of their 50-year reunion and will be awarded to undergraduate students.
- The **Wilbur and Bette Feagan Loan Fund** is designed to assist juniors and seniors who have received the Missouri Society of Professional Engineers scholarship, with preference to students whose entire academic career has been at UMR.

The MSM-UMR Alumni Association greatly appreciates these three additional ways to help students. For information on establishing a scholarship endowment within the alumni association, contact any member of the association's board of directors or the alumni office at (573) 341-4145.

## Help UMR recruit students

Become involved and help UMR recruit great students! As an Alumni Ambassador you will be able to help with recruitment for UMR in three different ways:

### CALLING CAMPAIGNS

Call admitted students to congratulate them and answer any questions the students have about UMR.

### REGIONAL RECEPTIONS

Host and/or participate in prospective student receptions in your local area.

### COLLEGE FAIRS

Attend college fairs in your local area on behalf of UMR.

## *Want to help?*

Let us know by e-mailing Carol Smith at [carol@umr.edu](mailto:carol@umr.edu) or by calling her toll-free at **(800) 522-0938**.

## MSM-UMR Alumni Association Mission and Goals

### **MISSION**

The association will proactively strive to create an environment — embodying communication with and participation by MSM-UMR alumni and friends — to foster strong loyalty to UMR and growth of the association. The association will increase its financial strength as well as provide aid and support to deserving students, faculty, and alumni friends.

### **GOALS**

- Assist university with recruitment and retention.
- Improve communication with and expand the involvement of alumni, especially recent graduates and current students.
- Increase financial resources of the association and the university.
- Strengthen alumni section activity.
- Increase volunteer support to the university and its students.

The officers and other members of the association's board of directors provide leadership and actual participation to achieve these goals and fulfill this mission. For their efforts to be a success, they need YOUR active participation as well, in whatever alumni activities you choose.



## Student groups benefit from alumni association

Student groups benefited from the generosity of your alumni association this year.

The alumni association recently presented \$2,500 in grants to eight student organizations to help support their projects. The alumni association solicits applications from approved student groups for project funding twice each year and awards up to \$2,500 each semester.

Projects funded generally serve a large number of students and meet one or more of the following goals:

- Advance the mission of the MSM-UMR Alumni Association and/or UMR.
- Benefit current students.
- Provide students with an extracurricular educational opportunity.
- Establish or protect traditions of the MSM-UMR Alumni Association and/or UMR.
- Heighten the visibility of the MSM-UMR Alumni Association on campus and/or in the greater community.



### SPRING 2002 RECIPIENTS

- Blue Key Block Party
- Panhellenic Formal Recruitment
- Helix Bridging the Gap
- Advanced Aero Vehicle Team
- UMR Bands 75th Anniversary
- Human-Powered Vehicle Team
- American Concrete Institute Bowling Ball/Egg Protection Device Competition
- Institute of Electrical and Electronics Engineers
- Lego Mindstorms Team



75th Anniversary of the UMR bands —  
See page 26 in this issue for more details.



# Pre-College and Summer Programs 2002

**Want more information?** For a pamphlet detailing UMR's pre-college and summer programs, please complete the information below and check the programs you want more information about in the box to the right, and return the form to us!

Name \_\_\_\_\_  
Last First Middle Initial

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

E-mail \_\_\_\_\_

Clip and mail to: University of Missouri-Rolla, Office of Continuing Education,  
103 Mechanical Engineering Annex, 1870 Miner Circle, Rolla MO 65409-1560

[www.umn.edu/~conted/summerprograms.html](http://www.umn.edu/~conted/summerprograms.html)

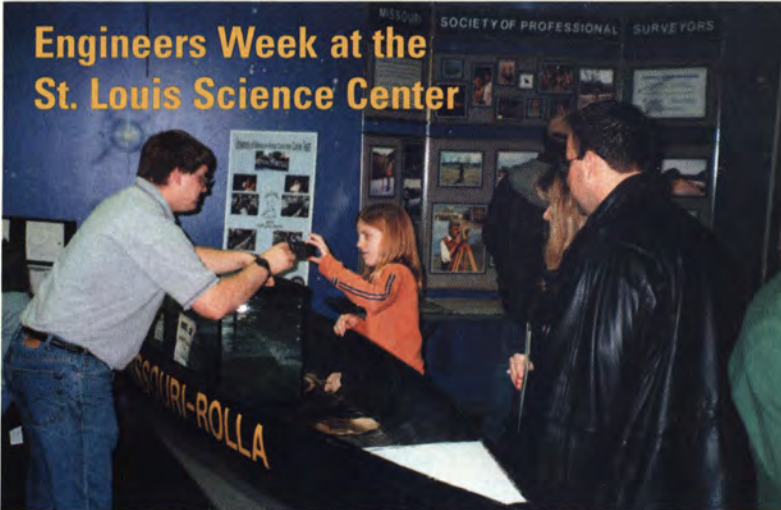
PLEASE REFER THIS MATERIAL TO ANYONE WHO MIGHT BE INTERESTED

Please check the programs listed below for more information:

- Introduction to Engineering
- Jackling Institute
- MITE (Minority Intro to Engineering)
- Discover the Connection
- Aerospace Camp
- Explore Space (Summer 2003)
- Summer Transportation Institute
- Nuclear Engineering Camp
- Joe Miner Sports Camp
- Boys Basketball Camp
- Future Stars (Girls) Basketball Camp
- Show-Me Games



## Engineers Week at the St. Louis Science Center



MSM-UMR alumni and UMR faculty and students made Engineers Week an unforgettable one for children who visited the St. Louis Science Center Feb. 24-25. In addition to providing fun science experiments to involve youth, UMR showcased its award-winning solar car, *Solar Miner III*, the SAE Formula race car, the aero vehicle, an "unsinkable" concrete canoe, a steel bridge and the human-powered vehicle. A special thanks to Milt Murry '64, who helps organize and involve alumni in the event.



Above: Youth gather to put their own touches on the UMR robotics club's hands-on experiment.

Above, left: Children and their parents are intrigued by a floating concrete canoe.

## Graduating seniors enjoy pizza

UMR graduating seniors enjoyed Domino's pizza, Pepsi products, and Anheuser-Busch products at the Senior Pizza Party held Nov. 15.

Mike Meyer, ME'75, graciously provided the beer and Susan Watson, CSci'83, generously donated a Palm Pilot Vx, which was won by Nick Ereckson, CE'01. Seniors who

attended the party received an MSM-UMR Alumni Association Membership Kit with information about alumni benefits.

All seniors who attended commencement on Dec. 15 also received a diploma case courtesy of the alumni association.

Graduating seniors who did not receive a diploma case, please stop by the alumni office to pick up a case, or contact the alumni office staff at [alumni@umr.edu](mailto:alumni@umr.edu) to make arrangements to receive one.

**134**  
graduating seniors attended the Senior Pizza Party.



*Solar Miner II* — the forerunner to *Solar Miner III* — spent October on display in Peoria, Ill., the world headquarters for Caterpillar Inc. Caterpillar is one of the sponsors of UMR's Solar Car Team. Pictured with the car are some of the UMR alumni working at Caterpillar: Ed Ray '60, Colleen Stucker '00, Bob Wille '80, Jim Light '76, Karl Schmitt '99, Debbie Light '76, Dave Jones '70, Mike Smith '78, Lloyd Thompson '78, Ted Becker '69, Brian Call '97, Mel Pohlman '74, Scott Snoble '89, Steve Trower '81, Dwayne Tharp '82, Matt Williams '96, Russ Harrell '86, Linda Harrell '88, Scott Avis '86, Diane Gilbert '86, Darryl Hudson '01 and Wil Strasser '00.

**RELATED ARTICLE (pg.18)**  
*Solar Miner III places fourth in the World Solar Challenge.*

The next Senior Pizza Party will be held Tuesday, April 16, honoring seniors graduating in May and July.



## SPE conference draws alumni, students

More than 30 alumni and friends attended the Society of Petroleum Engineers reception on Oct. 2 in the Oak Valley Room of the Hilton New Orleans Riverside Hotel in New Orleans. Don Brackhahn, director of alumni relations, brought everyone up to date on what was happening at UMR and gave out door prizes. Even though the faculty did not make it to New Orleans for the conference, the campus was represented by students Rob McCarter and Tiffany Myers.



*Howard Oswald '84, Maryann Chambers-Fox '70, and Douglas Fuchs '77 meet during the SPE reception in New Orleans.*

*Those in attendance included: Lydia Barncord '97; James E. Chaney '82; David Craycraft '77; Rachel Durst '99; Donald R. Ellison '66; Maryann Fox '79; Douglas Fuchs '77; Lloyd '86 and Teresa Heinze; Jim Honefenger '72; Roger Horton '73; Jared M. Huckabee '79; Curt Killinger '73; Gerrit Leeftink '98; Robert J. Long '94; Rob McCarter, student; Kevin S. Moore '81; Ed May '83; Tiffany Myers, student; Howard Oswald '84; Mark Pickell '73; Charles H. Rawlins '91; Jack M. '72 and Lizbeth Rose; Grant F. Smith '90; Mark '90 and Mary Warren; Scott Wehner '80; and Don and Nancy Brackhahn, alumni office.*



*Jack Rose '74, Jim Honefenger '72, Curt Killinger '73, and Ed May '83 discuss current trends during the SPE conference.*

## Alumni Alliance Report



Several UMR alumni attended the University of Missouri Alliance of Alumni Associations meeting Nov. 9-10, in Columbia. Representing UMR were Bob Bay '49, Matt Coco '66, Jim Foil '74, Larry Hendren '73, Cal Ochs '49, Bob Patterson '54 and Don Brackhahn of the alumni office. Alliance members elected new officers: Jack McCausland, chair (UMC); Dick Erickson, chair elect (UMKC); Sandy Sands, first vice chair (Extension); Matt Coco, second vice chair (UMR); Sterling Adams, treasurer (UMSL); Larry Wines, immediate past chair (UMSL).

Legislative Day, one of the primary activities of the Alumni Alliance, was held Feb. 27. Alumni from all four campuses gathered in Jefferson City to present legislators with UM sweatshirts and thank them for their support. UMR alum Armin Tucker '40 was presented with a Presidential Citation for Outstanding Service at this event.

Receptions by the Alumni Alliance will be held throughout the state this year and will include a visit from Manuel Pacheco and other university officials.



**It's not too late to get your green!**

Order online at [www.umar.edu/~stpats](http://www.umar.edu/~stpats).

To place a credit card order call 1-800-617-6750 or (573) 368-5578 or send in the form on page 43.





## A WORD ABOUT OUR PARTNER VENDORS

Some alumni have told us they'd rather not be contacted by our partner vendors concerning benefits to MSM-UMR alumni. These vendors include the MBNA credit card, ArtCarved rings and pendants, Seiko watches, Standard Chair of Gardner, and our travel partners Global Holidays and Alumni Holidays. We understand! If you'd rather not be contacted, just let us know by e-mail at [alumni@umr.edu](mailto:alumni@umr.edu), by phone at (573) 341-4145 or by fax at (978) 926-7986, and we'll remove your name from their call/mail lists.

**Do you have digital images** from your section meetings and events? We welcome them! Make sure they are shot or scanned at 240 to 300 dpi for quality reproduction. If you have questions about this, please contact the publications office at (573) 341-4270, or e-mail Rebecca Frisbee at [rebeccam@umr.edu](mailto:rebeccam@umr.edu).

## WE WANT YOUR NEWS!

Deadline for submissions to the fall 2002 issue of the *MSM-UMR Alumnus*

**June 17, 2002**

## Air Capital Section soars to B-29 tour

On Dec. 1, 2001, 21 alumni, family members and guests met to tour the B-29 Superfortress restoration. "Doc" is being restored by volunteers at the Boeing Wichita facility, where it was first manufactured in 1944. When restored, "Doc" will be only the second flying B-29 in the world and will go to air shows and communities as living history. Restorers hope to have the first test flight of the World War II era plane on Dec. 7, 2002 — Pearl Harbor Day.

Boeing manager Lora Boys, who is coordinating the restoration effort, served as the tour guide. The restoration is sponsored by the U.S. Aviation Museum, Boeing and other companies. Everyone enjoyed getting up close and personal with such an amazing piece of American history. For updates and to follow the restoration crew's progress, see the Web site: [b-29.boeing.com](http://b-29.boeing.com).

*Among those attending: Sean Daly '96; Matthew Houser '97; Kirk Peterson '95 and Tracy Klein; Ken Drake '75 and son; Jennifer Marshall '96; Jarrod Grant '98; Tony '98 and Laura (Bandy) '99 McLaughlin; James '62 and Joanne Flippin; Jim Parker '78; George Miklos '57; Vicki Johnson '82; and guests.*



## Ark-La-Tex Section gobbles Cajun turkey



The Ark-La-Tex Section attracted 27 alumni and guests to the section's fall meeting on Oct. 13 — nearly double the attendance of last year's event.

This Seventh Annual Cajun Turkey Fry was held at the home of Kenny and Beth Cochran. Our group deep-fried two turkeys and brought covered dishes. Many alumni brought their own favorites; it's hard to beat this kind of meal.

After the dinner, president Kenny Cochran '83 held a short meeting. Ernie Green '70 gave the minutes of the summer meeting and a treasury report. John Livingston '39 gave a 2001 MSM-UMR Homecoming report. Jerry Poland '82 announced that our section annual report was sent on time again this year. Ark-La-Tex came in third place in the outstanding alumni section competition with 397 points. St. Louis and Houston took first and second places, with 434 and 417 points, respectively.

Officers elected for the 2002 year: Ernie Green, president; Gene Rand '62, vice president; and Kenny Cochran, secretary-treasurer.

Livingston invited everyone to participate in the Bossier City, La., college night on Oct. 22. Cochran talked about the Longview, Texas, college night. During the discussion of college nights, several alumni brought up the fact that we have lost Lynn Stichnote, sections coordinator of alumni relations. Stichnote has moved to the admissions office at the university. Stichnote was an asset to all the alumni sections and will be missed.

The next Ark-La-Tex meeting was held Jan. 19, at Livingston's historical home in Elm Grove, La., followed by dinner at Copeland's restaurant in Shreveport.

*Those attending: Frank '32 and Catherine Zvanut; Helen Bruening; Elmond Claridge '39; Clydelle Compton '39; John Livingston '39; Loretta Moscari; Lloyd '58 and Jeanine Tuggle; Ernie '70 and Gerri Green; Judy '74 and Rande '74 Grotefendt; Jerry '82 and Tamara Poland; Kenny '83 and Beth Cochran; Doris Bryant; Roy and DD Carmin; Josh McClanahan; Claire Patterson; Louise Patton; Chas. and Liz William; and other guests.*

## Triangle to celebrate 75th anniversary of UMR chapter

Celebration activities are being planned for Friday, April 19, and Saturday, April 20. Contact Mike Knittel for further information at (573) 364-8968 or [mknittel@umr.edu](mailto:mknittel@umr.edu).

### Houston alumni attend 19 college fairs, represent UMR to 300 students

The Houston Section again took a leadership role last fall in recruiting high school students. Houston Area Alumni Admissions Ambassadors attended 19 college fairs, representing 59 high schools throughout the Houston area. They promoted UMR and discussed opportunities with nearly 300 students.

Thanks go to Curt Killinger, who served as coordinator; and to Nicole Talbot, Houston Section president; Adil Godiwalla and Jim Medlin for their assistance.

*The Alumni Ambassadors included: Rex Alford '40; Wayne Andreas '58; Lori Stapp Crocker '88; Gerry Elphinstone '90; Adil Godiwalla '67; Mark Gredell '79; Dan Hinkle '73; Delores Hinkle '75; Alan Hopkins '89; Curt Killinger '73, '80; Rich Langenstein '87; Ed May '83, '95; Jim Medlin '67; Zeb Nash '72, '93; Jim Paul '43; Russell Pfeifle '74; Eric Potts '73; Walter Reed '69; Perrin Roller '80; Nicole Talbot '77; and Shannon '97 and Francis '97 Walker.*

### Houston alumni ring in the holiday

Houston area MSM-UMR alumni gathered for food and fun at the home of Lori Stapp Crocker '88 and Tony Crocker for a Christmas Open House. Neither the rain nor busy holiday schedules could keep alumni and their families away from celebrating the season with MSM-UMR friends! A wide range of alumni were represented, and the highlight of the day was watching our 1938 alumnus, Wilbern T. Moore, visit with 2000 graduates Molly Schneider and Elizabeth Ragsdale. We all enjoyed lots of Christmas goodies, and swapped stories about our work, travels and families.

*Among those attending: Lori Stapp '88 and Tony Crocker; Rob '79 and Becky Riess and family (3); Nicole Talbot '77; Russ Pfeifle '74; Elizabeth Ragsdale '00; Molly Schneider '00; Mike '81 and Rosie Flannigan; Cecilia '73, '81 and Randy Freeman; Wilbern T. Moore '38 and guest Mary Rogers; and Wayne '58 and Betty Andreas.*

### Houston alumni host student reception

Thirteen prospective students and 18 parents attended the 12th Annual Houston Prospective Student Reception Nov. 3 at Houston TRANSTAR (Transportation Management Center). Students represented numerous schools, including Klein, Klein Oak, Katy, Cypress Falls, Cypress Creek, The Woodlands, Conroe, St. Thomas and Strake Jesuit.

Nicole Talbot '77, Houston Section president, welcomed students and parents. An outstanding tour led by Jack Whaley, TRANSTAR director, highlighted traffic management in Houston, as well as emergency preparedness capabilities.

Jay Goff, the dean of enrollment management at UMR, gave students an overview of UMR and its programs. John Wilson, retired chair of UMR's mining engineering department, challenged students to earn a degree and pursue a career in engineering or scientific disciplines. Wilson serves as a student recruitment liaison for UMR in Texas. Alumni then gave testimonials on their careers and UMR experiences.

*Alumni attending: Wayne '58 & Betty Andreas; Rex Alford '40; Lori Crocker '88 and husband Tony; Jim Erickson '92; Adil Godiwalla '67; Curt Killinger '73, '80; Jim Medlin '67; Russell Pfeifle '74; Robert Riess '79; Nicole Talbot '77; and Shannon '97 and Francis '97 Walker.*

Many thanks to Russ Pfeifle '74 for hosting the event.

*(Submitted by J. Curtis Killinger '73, '80)*



*Jay Goff, dean of enrollment management, showcases UMR to prospective students and their parents during the 12th annual Houston Prospective Student Reception. More than a dozen prospective students and their parents attended the reception held at TRANSTAR in Houston.*

**Join us for student recruitment activities**

**E-mail Carol Smith at [carol@umr.edu](mailto:carol@umr.edu) or call her at 1-800-522-0938.**



## A King's feast featured at MD/VA/DC Section

Thirty alumni and friends gathered at the home of Earl '43 and Olga Biermann on Oct. 13 in King George, Va., for the 14th consecutive year for the annual fall meeting and dinner.

A number of alumni walked along the shore of the Potomac after the meal, and then returned to the residence where Doug Hughes '63 called the MD/VA/DC Section meeting to order. Following introductions of the members, Hughes called attention to the UMR solar car placing second in the American Solar Challenge and discussed the upcoming race in Australia (where the team finished fourth). Don Brackhahn, director of UMR's alumni and constituent relations, was then introduced to bring everyone up to date on changes on campus. When the presentation was completed, door prizes were given. Jeff Alexander received a St. Pat's sweatshirt, Larry Amos won the *UMR History* book and Pete Bermel received the *Look and See Activity Book* — which was especially appropriate as the book's author (Bill Hallett '55) and artist (Jack Guth '50) were fraternity brothers of Bermel's, and Guth and Bermel had been roommates.

Hughes then made a special presentation in appreciation of Don and Nancy Brackhahn for their longtime support of the section. A beautiful book about Chesapeake Bay was given to them, since this will be their last visit to the section before Don's retirement.

*Among those in attendance were: Jeff '88 and Olinda Alexander and daughter; Frank '53 and Mary Almeter; Larry L. Amos '68; Pete '48 and Bobbie Bermel; Earl '43 and Olga Biermann; Kathy Biermann; Don and Nancy Brackhahn; David '96 and Jodie LaFreniere Dajc; Inhi Hong '67; Jeff Hougland '01; Doug '63 and Sandy Hughes; Gene Kolb '51; Wilbur '60 and Sharon McBay; Charles H. McGrady '67; Jeremy T. Ross '99; Bob '73 and Janet Scanlon; Joe '92 and Amy Stirnweis Schumer; and Glenin '64 and Dottie Van Doren.*

*Alumni enjoy an evening at the home of Earl '43 and Olga Biermann during the MD/VA/DC Section meeting in October.*



## Don and Nancy receive book

*Don and Nancy Brackhahn were presented with a beautiful book on Chesapeake Bay for their longtime support of the MD/VA/DC Section.*

---

## Don's Retirement Reception is April 19

*See page 3 for details*

## Istanbul, Turkey, Section established

The MSM-UMR Alumni Association Executive Committee approved the Istanbul, Turkey, Section and its bylaws on Dec. 17. Now that it's official, the section plans to meet during 2002 and hopes to have a UMR recruiting night once a year.

## Mystery/comedy entertains St. Louis alumni



Alumni took an active role in the dinner theater, taking center stage as they became characters in the performance of *Dead With Carol Christmas*.

*Stephanie Kelemetc '94; Mark Childers '87; Dan '90 and Jill '87 Finklang; John '93 and Missy '95 Lochirco; John '71 and Linda Bergfeld; Bryon '70 and Barbara Ehlmann; Shelly '95 and Craig Wilde; and guests Steve and Marianne Ward of the alumni office; Randy and Cathy Burrus; Jack and Jan Llewellyn; and Shelly, Stanley and Jan Schewr.*

The Bissell Mansion Dinner Theatre proved to be the perfect backdrop for a murder mystery/comedy for 38 St. Louis Section alumni and guests to solve.

Everyone received a new "identity" as they arrived at the mansion built by Capt. Lewis Bissell in the mid-1820s. Some found themselves front and center stage in their newly cast roles. A lively crowd, lots of humor, a historic setting and a delicious four-course meal added up to a great evening of fun for alumni and their guests. A special thanks to Christina Sfreddo '94 for planning and organizing the event.

One alumnus — Michael Brynac '66 — had the scoop on everyone. His wife, Carol, played the female lead in the performance of *Dead With Carol Christmas*.

*Among those attending: Michael '66 and Carol Brynac; Greg Boice '92 and Kara Kopplin '92; Salvatore "Sam" '77 and Gail Ribaldo; Tina Faughn '94; Jennifer '91 and Brian Diskin; Christina Sfreddo '94; Nancy (Fetters) '91 and Ike Portscheller; Marc '92 and Kelley '91 Thomas; Nelson '96 and Amy '96 Nolte; Susan Hahnel '95;*

## Take me out to the ballgame

### Bullpen is hit for St. Louis Cardinals fans

The St. Louis Section attended a St. Louis Cardinals baseball game on Friday, Sept. 7. We had 35 people join us in the Bullpen Room at Busch Stadium. This game room setting allowed everyone to socialize with fellow alumni and friends while enjoying an excellent view of the action on the field. A great time was had by all, and we look forward to seeing more of our St. Louis area alumni at this event next year!

*Alumni and friends who attended included: Randy Dreiling '81; Salvatore Ribaldo '68 and guests; Dale '56 and Betty Schillinger; Joel '95 and Laura '94 Rickman; Rick Goldhammer '97; Brett Felton '94; Melissa Moore '93; Chris '94 and David '94 Witt; Milt Murray '64, '80; Angelika Adams '93 and Oliver Tamaray; Dyan '94 and Jack Chong and guest; Christina Sfreddo '94; Crystal Cook '99; Bill Clarke and guests; and Jon Vaninger '63 and guests.*



# 2002

Chancellor's Cup  
Golf Tournament

Monday,  
Sept. 23, 2002  
*at the Legends*

*For more information  
contact Lucy Sutcliffe  
at (573) 341-4490 or  
e-mail lucys@umr.edu*

## ATTENTION SHUTTERBUGS

We'll be glad to print photos taken at your events — just send them in! They need to be good quality, clear pictures, preferably showing some of the fun at your event.

If sending digital files via e-mail, the images need to be 240 to 300 dpi.

Please identify those people in the picture. If you send several, we'll pick the best for publication. Unless requested, submitted photos will not be returned.



## UPCOMING MINER ALUMNI EVENTS

**MAY 2-5, 2002**

**Miner Music Section  
75th Anniversary of the Bands**  
University of Missouri-Rolla  
Don Miller  
(573) 341-4698  
dkmiller@umr.edu

**MAY 2002 (TBA)**

**Motor City Section  
Formula SAE dinner**  
Jeff Seaman, '00  
(313) 390-8544 (day)  
Jseaman4@ford.com

**JUNE 2-3, 2002**

**Class of 1952  
Golden Alumni Reunion**  
Rolla, Missouri  
alumni office  
(573) 341-4145 (day)

**JUNE 22, 2002**

**St. Louis Section Golf Tournament  
Wolf Hollow Golf Club**  
Phil Jozwiak '66  
(314) 997-7440 (day)  
(314) 878-1285 (eve)

**JULY 2002 (TBA)**

**St. Louis Section  
Cardinals Game**  
Christina Sfreddo '94  
Christina.sfreddo@jacobs.com

**OCT. 1, 2002**

**Alumni Reception  
SPE Conference**  
Marianne Ward  
alumni office  
(573) 341-6034 (day)



## All alumni aboard!



*The Pacific Northwest Section prepares to board the Spirit of Washington train for a tour to see the beautiful fall colors.*

### Fall colors glow during Pacific Northwest Section *Spirit of Washington* Dinner Train trek

MSM-UMR alumni in the Pacific Northwest Section boarded a private parlor car on the *Spirit of Washington* Dinner Train to view the fall colors starting at Renton, Wash. The views of Lake Washington and the fall colors along the way were outstanding during the Oct. 27 train trek. The meal selections and food service were excellent. Alumni also toured the Columbia Winery. The tour — flavored with funny jokes — was followed by wine tasting and the opportunity to purchase wine at reduced costs. We also enjoyed catching up on news from many friends. We welcome newcomers to our activities.

Special guests were Chancellor Gary Thomas, Julie Turley from the development office, and Don and Nancy Brackhahn from the alumni office. Thomas gave an interesting campus update, along with an excellent handout showing an artist's conception of future developments to the campus. Brackhahn is retiring after 16-plus years of service with UMR. The Brackhahns are making farewell trips to various sections, and we were pleased that they came out to visit us.

*We had 23 attend the event including Steve '68, '70 and Susan Wright; Tim '90 and Kelly '88 Beckerle; Dan Crutcher '85; Pat Duvall '62; Pete Malsch '62 and his wife, Jeanne Kightlinger; Dick '66 and Joyce Paul; Erik '77 and Robin '78 Tilman; John Keibel '66; Donnell '35 and Ruth Dutton and daughter Diana Dutton Logan; Robert '67 and Karen Gray; and Stephen Strauss '68.*

*(Submitted by Stephen Wright, president)*



*MSM-UMR alumni enjoyed a private parlor car on the Spirit of Washington train.*

*Steve '68, '70, and Susan Wright prepare to dine aboard the Spirit of Washington.*

## ALUMNI SECTIONS

**AIR CAPITAL**

Jarrold Grant '98  
2200 South Rock Road  
Wichita, KS 67207  
(316) 687-5801  
Jarrod.Grant@Wichita.  
BOEING.com

**ALASKA**

John Hentges '89  
13501 Ebbtide Circle  
Anchorage, AK 99516  
(907) 345-1715

**ARK-LA-TEX**

Ernie Green  
2609 Cuba Blvd.  
Monroe, LA 71201  
(318) 329-9554  
profgreen@hotmail.com

**BAY AREA**

Kamila Cozort '85  
117 Forest Hill Drive  
Clayton, CA 94517  
(925) 673-0437  
ccoort@earthlink.net

**CAROLINAS PIEDMONT**

Brian Tenholder '97  
5211 A Strawberry Hill Drive  
Charlotte, NC 28211  
(704) 442-1878  
bten1189@carolina.rr.com

**CENTRAL OZARKS**

J. Randy Verkamp '72  
18112 Highway 8  
St. James, MO 65559  
(573) 265-1159

**CHICAGO**

Kerry Knott '96  
3098 Autumn Lake Drive  
Aurora, IL 60504  
(630) 236-9962  
kerry.knott@ipaper.com

**CINCINNATI/DAYTON**

Millard "Skip" Dunham '85  
2843 Cranbrook Drive  
Cincinnati, OH 45251-4274  
(513) 825-6456  
msdnkd@one.net

**DALLAS/FT. WORTH**

Warren Unk '91  
1507 Hayfield Drive  
Plano, TX 75023  
(972) 881-9319  
wunk@msg.ti.com

**GEORGIA**

David R. Ziegler '85  
1531 Huntington Drive  
Marietta, GA 30066-5907  
(770) 425-0971  
drzfamly@juno.com

**HEARTLAND**

J. Robert Patterson '54  
PO Box 573  
Sikeston, MO 63801  
(573) 471-5012  
jrpat@idd.net

**HOUSTON**

Nicole Talbot '77  
4006 Lee Lane  
Pearland, TX 77584-9300  
(281) 489-0391  
cell phone: (832) 236-0182  
nicoletalbot77@hotmail.com

**ISTANBUL, TURKEY**

Sehrazat Omurtak Saridereli  
HIT Intl Edu. Publishing  
Buyukdere Cad.  
HurHan No: 15/A  
Sisli 80260 Istanbul, TURKEY  
saridereli@hit.com.tr

**KANSAS CITY**

Craig Koenig '86,  
19100 E. 30th St.  
Independence, MO 64057  
(816) 373-7928  
ckoenig@burnsmcd.com

**LINCOLNLAND**

Jerry Parsons  
2007 Clubview Drive  
Springfield, MO 62704  
(217) 793-3662

**MARYLAND/VA/D.C.**

Doug J. Hughes '63  
1212 Finneans Run  
Arnold, MD 21012-1876  
(410) 647-2370  
w3ho@aol.com

**MID-MISSOURI**

Chris Kump '95  
1505 DelCerro Drive  
Jefferson City, MO 65101  
(573) 659-3787  
nrkumpc@mail.dnr.state.mo.us  
CMKGEOE@cs.com

**MID-TENNESSEE**

M. Shannon Lambert '90  
3224 Nolen Lane  
Franklin, TN 37064  
(615) 599-1218

**MINER MUSIC**

Thomas H. Rogge '93  
430 Elm Crossing Court  
Ballwin, MO 63021  
(636) 256-7818  
rogge@tseinc.com

**MOTOR CITY**

Jeffrey Seaman '00  
11199 Oak Lane #2108  
Belleville, MI 48111  
(734) 697-6019  
jseaman4@ford.com

**NEW ORLEANS**

Robert J. Long '94  
4933 Utica St.  
Metairie, LA 70006  
(504) 888-0076  
R1984382@yahoo.com

**NORTHEAST OHIO**

Hugh C. Kind '76  
1021 Morewood Parkway  
Rocky River, OH 44116  
(216) 331-5848  
hugh\_kind@burmahcastrol.com

**NORTHERN ALABAMA**

John P. Dunbar '84  
622 Patterson Lane  
Meridianville, AL 35759  
(256) 828-5874  
dunbar@hiwaay.net

**OKLAHOMA**

Rich Brown '83  
7550 East 106th St.  
Tulsa, OK 74133  
(918) 298-7889  
brownrrok@home.com

**PACIFIC NORTHWEST**

Steve Wright '68  
35708 SE 49th St.  
Fall City, WA 98024-9715  
(425) 222-7560

**ROCKY MOUNTAIN**

Clarence Ellebracht '64  
7336 S. Glencoe Court  
Littleton, CO 80122-2527  
(303) 850-8934  
cellebracht@avaya.com

**SAINT LOUIS**

Elif Yasar '99  
12592 Renault Court, Apt C  
St. Louis, MO 63146  
(314) 439-0636  
eyasar@centrics.com

**SPRINGFIELD, MO**

Kem Reed '84  
3919 S. Meadowbrook Ave.  
Springfield, MO 65807-4491  
417-886-2893

**TUCSON**

William M. Hallett '55  
626 N. Hayden Drive  
Tucson, AZ 85710-2475  
(520) 722-9298

**WEST TEXAS**

Mike Party '78  
6706 West Wind Court  
Midland, TX 79707-1404  
(915) 694-9787  
wbog01@IBM.net

Alumni Online  
Community Update

Those of you who have already registered for the MSM-UMR Alumni Association Online Community already know how helpful it can be. If you haven't registered yet, there's no time like the present! Just check the label on the front of this magazine to get the security number you'll need to register: it's the six-digit number above your name. With this number in hand, go to [www.umn.edu/alumni](http://www.umn.edu/alumni) and click on "Register for the MSM-UMR Online Alumni Community now." Then click on "Click Here To Register Now." Enter your last name, then click "Find My Record." Click on your name in the list shown, and you'll be given a blank into which you can type the six-digit number that is your security information (the number from the address label). Then, you should have the opportunity to select a user ID and a password that you'll use on future visits to the community.

If you are already registered, but haven't visited recently, you'll find a few new items. We've started running occasional polls/surveys to get your opinion on services and issues relating to alumni. Keep checking for new polls because they don't stay open for long!

Another enhancement is that you can now search by ZIP code in the "Advanced Search," to help you find fellow alumni in your area. You can be specific and ask for a particular ZIP code, or you can use the "fuzzy" logic and type in "654" to obtain all alumni whose ZIP code begins with those three digits.

There's also a link to the section events calendar from the Online Community main page, as well as new graphics and colors that more closely relate to MSM-UMR. We hope you enjoy the community and visit often!

[www.umn.edu/alumni](http://www.umn.edu/alumni)



## 19 30s

### 1933

**William M. Rodgers, ME:** "Now 92 and still paying taxes, excluding death taxes."

### 1939

**Marshall V. Jamison, ChE:** "I traveled to Natal, Brazil, in November 2001. During World War II, it was the Air Corps ferrying command's take-off point for Africa. I was the base's first commanding officer, commanding one person — myself. Base grew to several thousand. As a non-flying second lieutenant, I was replaced at personnel level 200 by a colonel/pilot. Now I have a new kind of work in the same city." • **Edgar S. Miller, CE:** "Traveled to New York state Erie Canal on a boat trip on the St. Lawrence and Saguenay rivers in July, and Northwest Mexico and Copper Canyon in mid-October. Hard to beat."

## 19 40s

### 1941

**John H. Dunn, MinE,** retired in 1981 from Rollins, Brown & Gunnel Inc.

### 1943

**James H. Bottom, ChE:** "Moved from North Carolina to St. Augustine, Fla. Just had my

third surgery but doing great now." • **Thomas E. Gregory, MetE:** "Wife and I are enjoying retirement. Visited a classmate (**Herb Kalish, MetE'43**) in Manchester, Vt., in October. Went on a cruise to the Caribbean in December." • **Charles S. McCormick, ME:** "As with family and friends of our age, Grace and I give considerable attention to our health. Grace's health has been poor. We have been blessed with three 'children' (in Chicago, Atlanta and Fort Worth, Texas), two granddaughters and nine grandsons, all in vigorous good health!"

### 1947

**Glenn H. Fritz, MinE:** "Life is not the same since my wife passed away recently; however, I keep busy with Masonic-related activities and at 82 my health is quite good."

### 1948

**Bernard J. Sexauer, MetE:** "Grace and I are enjoying good health. Been married for 55 years and going for 60. Having a great retirement in Naples, Fla."

### 1949

**Robert R. Penman, MetE:** "Keeping busy working on my computer, designing a Web page for my church." • **Gordon E. Raymer, CE:** "Still married to one of the first two MSM-UMR cheerleaders, Dorothy. Spending time with family, playing golf, traveling, boating and church." • **David G. Wisdom, CE:** "We were sad to learn of the death of W. Jack Rother. He and his wife, Ginny, were great friends of ours in Rolla."

## 19 50s

### 1950

**Francisco Ferreira, MinE:** "Enjoying retirement for more than 20 years, thanks to UMR."

### 1951

**Earl E. Jackson, MinE:** "Retired now for three years and enjoying traveling to China, Ethiopia, and South Africa, plus driving 15,000 miles around our great country."

### 1952

**Lauren W. Choate, MinE:** "Retired in 1990. Consulted for five years, then gave that up for golf, skiing, traveling and grandfathering. I was better at consulting!"

### 1957

**Charles A. Frey, CE:** "Retired from Texas Department of Public Transportation after 36 years. Staying busy with teaching part time, volunteering at church and travel. Took an Alaska Tour & Inside Passage Cruise with kayaking, water rafting, wilderness walks and whale-watching in July." • **James E. Watwood Jr., CE:** "Retired!" • **Charles R. Weldy, ME:** "Continue to volunteer for various groups and enjoy our first granddaughter, Cady."

# Happy Birthday!

## 1958

**Jerry D. Vie**, ChE, MS ChE'60: "Retired in 2000 after 40 years with Mallinckrodt and Ciba Chemical and enjoying it."

## 1959

**Thomas L. Tucker**, ME, is the co-leader of a traditional jazz group, *Cornet Chop Suey Jazz Band*, scheduled to play seven jazz festivals in the U.S. in 2002.

# 1960s

## 1961

**James M. Burns**, ME: "Retired in April 1999." • **Farouk El-Baz**, MS GGph'61, has been chosen to direct a three-year research study of the groundwater potential in the northern Arab Emirates. The project will be performed with the cooperation of Sharjah Electricity and Water Authority. El-Baz is currently the director of Boston University's Center for Remote Sensing.

## 1962

**Karl L. Brown**, MetE: "Plan to work at least three more years. Just elected president of AMIGOS, an Arizona vendors political action group for the mining and industry companies." • **Bhalchandra T. (B.T.) Dave**, ChE, MS ChE'64, is the 2001 winner of the Robert W. Brown Award recognizing Uniroyal Chemical associates who exhibit technical excellence and enthusiasm, sound business judgment, high ethical standards and character, unselfishness and loyalty. • **William L. Hallerberg**, MetE: "After 32 years of making steel, I have retired in Amarillo, Texas."

## 1963

**Arvind M. Shah**, ME: "We have moved to the retirement community of Sun City in Huntley, Ill. It's a great place with lots of activities to keep us busy."

## 1964

**John F. Limberg**, ME: "Retired from first career and looking for second career." • **James P. Odendahl**, CE: "Retired from Weyerhaeuser Co. in November 2001. Looking forward to time for travel and other projects." • **Lyle L. Pruitt**, CE, is vice president and federal market leader for Stanley Consultants in Muscatine, Iowa.

(Continued on page 38)

## Hans Schmoldt turns 80 in style

True to form, **Hans Schmoldt '44** did it up right to celebrate his 80th birthday. While on a 3,877-mile driving tour of Europe, he and his wife, Jimmie, had a special birthday dinner at Burg Hornberg, a German castle overlooking the Neckar River, east of Heidelberg. Hans tells us Burg Hornberg is owned by 13th-generation family member Baroness Yvonne von Gemmingen, recently married to the president of Germany. The baroness greeted them and gave them a special birthday dessert (pictured) as well as a framed old print of the castle.



## Jackling Jocks host reunion Sept. 14-16

About 50 alumni and guests attended the fourth annual reunion of the Jackling Jocks Sept. 14-16 in St. Louis. The weekend got off to a great start when the hospitality suite opened at 2 p.m. on Friday, Sept. 14. This was followed by a self-catered cocktail party starting at 5:30 p.m. and lasting into the late evening hours. Special thanks go to Mary McGovern, Jan McCarthy and others for their help in serving the food.

On Saturday morning, 22 alumni took a guided walking tour of historical St. Charles, Mo., while 12 "broken down" jocks took to the golf course. Later in the afternoon, a practice session for the pre-dinner cocktail party was held in the hospitality room. The more formal cash bar session was followed by a truly excellent buffet dinner. After dinner we were treated to a number of extraordinary stories about heroic feats — mostly by running backs — on the football field of MSM-UMR.

Guests included Mark Mullin, athletic director; Kirby Cannon, head football coach; Don Brackhahn, director of alumni relations; and Dewey Allgood, the loved and respected former coach. Special thanks to Dorothy Williams for being with us and to Marilyn Wells for all of her hard work in keeping the mailing list up to date.

More than \$2,000 has been collected for the Spirit of Jackling Scholarship Fund, raising the total to more than \$16,000. Thanks to all who gave so generously! For a minimum gift of \$100 to the scholarship fund, you may receive a Jackling Jock baseball cap, T-shirt or jersey shirt. Bill Englehardt has graciously underwritten the cost of these items. To obtain one of these items, mail your check for \$100 or more to the MSM-UMR Alumni Office at 112 Castleman Hall, Rolla, MO 65409-0650, or to Bill Englehardt at 6704 Fifth Ave., Broken Arrow, OK 74011-7233.

The fifth annual reunion of the Jackling Jocks will be held during Homecoming 2002. The JJ banner has been returned to legendary quarterback Roger Feaster, who with renowned center professor Tom Herrick will coordinate the reunion.

*Jocks in attendance were: Perry Allison '59; Keith Bailey '64; Lu Bolon '59; Dick Boyett '58; Tom Cooper '60; Ted Deranja '65; Jerry Dorlac '55; Gene Edwards '52; Bill Englehart '79; Roger Feaster '57; Val Gribble '56; Bob Helm '57; Tom Herrick '58; Bill Hill '58; Mike Hillmeyer '61; Jim Lemon '63; John McCarthy '55; Don McGovern '58; Charlie Miller '57; Pete Weitzel '57; Newt Wells '59; Lou Whitehair '59 and Alden Williams '50.*

(Submitted by Val Gribble, John McCarthy, Don McGovern and Alden Williams)



## HEY, CLASS OF 1977!

It's your turn this Homecoming – to celebrate your 25-year reunion, that is! Yours will be the first class to receive the "Silver Miner" lapel pin, in recognition of this milestone. If you'd like to help plan and host the reunion, please contact Lindsay Bagnall in the alumni office by e-mail at [lindsayb@umr.edu](mailto:lindsayb@umr.edu), by phone at (573) 341-6327, or by fax at (630) 604-3107.

## MARK YOUR CALENDAR NOW FOR OCT. 11-12, 2002 – WE'LL SEE YOU HERE!!

### 1965

**Gerald J. Roe**, MetE, MS MetE'67, retired from Bethlehem Steel after 30 years. He is currently working for Ryerson Tull providing metallurgical support for marketing.

### 1967

**Hemendra N. Kalia**, MinE: "Still in Las Vegas working on disposal of high-level radioactive waste. All is well."

### 1969

**Terry L. McLellan**, ME: "Kay and I are now in Austin, Texas, answering a call to ministry. I am a student in my second year at Austin Seminary. I will be seeking ordination as a minister in the Presbyterian Church."

### 1971

**James H. Jones**, ChE: "On July 1, I retired as a captain after 30 years with the U.S. Public Health Service. I am now doing part-time consulting in the area of occupational safety and health."

### 1972

**Warren N. Keith**, CE: "I now work for Tetra Tech in Kansas City. New phone for business is (816) 729-2619."

### 1974

**James H. Van Houten**, CE, is a senior associate at Stantec Consulting Inc. He is head of the southwest regional office's construction administration services in Phoenix, Ariz. • **Ali A. Selim**, CE, is a professor of civil and environmental engineering and director of the South Dakota Local Transportation Assistance Program at South Dakota State University. He also is chair of the pavement committee of the ASCE Highway Division.

### 1976

**Pedro Castillo**, PetE, wrote an article, "Natural Gas, a new experience in Venezuela," which appeared in the December 2000 issue of *Zumaque*, the magazine of petroleum. Castillo's article explains the orientation of natural gas to challenges and goals of Venezuela. • **Larry W. Shoemaker**, ChE: "Passed my 25th year with Phillips in June. Seems like only yesterday when we were at Rolla."

### 1977

**Henry E. Haggard**, CE: "Finally built dream house on the farm and moved last year. Now I feel just like Oliver Douglas on 'Green Acres.'"

## 1970s

### 1970

**Kent T. Florence**, CE: "Retired from St. Louis Metropolitan Sewer District after 31 years. Single — three girls: Beth, 28, Carolyn, 26, and Tara, 20. Active in the American Legion Post III in Shrewsbury, Mo." • **David L. Raby**, CE: "After 26 years, I left the large consulting business for the smaller consulting business, Howard R. Green Co. Our girls are all out of college and self-supporting!"

### 1975

**Tom Mittler**, CE: "I am pleased to report that I was selected to carry the Olympic torch. I was nominated by my daughter, Sandi Brunello, and notified in early September. I carried the torch in Texarkana (both Texas and Arkansas) at 5:19 a.m. Dec. 13. I am honored to participate in this international event. It would be interesting to know how many other alumni were selected."

## 1980s

### 1980



**Jim Marfice**, above, left, ME: "In June, **Larry Elliott**, above right, CE'80, and I presented papers at the national convention for the American Water Works Association in Washington, D.C. As loyal Pikes, we enjoyed seeing the recent article on the new Pi Kappa Alpha house that was rebuilt at the same location at Ninth and Bishop." • **Michael P. Suraud**, ChE, was promoted to operations manager for Elements Specialties Inc.

### 1982

**Eric G. Politte**, ME: "I am president of three wholly owned corporations with staff of 60 professionals. We made the 2001 'Top 100 Companies Making the Greatest Impact on Houston.' Sue and the three kids are all doing great — one is starting the college search."

## UMR alumnus commands nuclear attack submarine

**Cmdr. Dan Richter**, ME'83, is the new commander for the nuclear submarine *USS Jefferson City*. Richter assumed command of the vessel in November and will continue in that role for at least 2 1/2 years. Richter lives in San Diego with his wife, Toni, and their five children.

The ship's mission is to search for and destroy enemy surface ships and submarines, gather intelligence about enemy movements, conduct combat search and rescue, conduct special warfare, and aid carrier battle group support. The *USS Jefferson City* also can use tactical cruise missiles to strike land-based targets deep within enemy territory. The 360-foot submarine has a crew of about 13 officers and 125 enlisted personnel.



## UMR alumni marry

**Fred Niemeier**, MetE '95 and **Jessica (Thomas) Niemeier**, GeoE '97, were married on April 7, 2001, at the Missouri Manor Bed and Breakfast. They live in Chicago with their cat, Lilac, and dog, Kaiya.

**Roger T. Kopp**, ChE: "Working in Springfield, Mo., for 3M as a manufacturing engineer specialist. Mary, Jenny and Daniel are all doing well in school."

### 1984

**Becky A. Akers**, MetE, earned her master's in education from Arizona State University in May 2001. • **Matthew R. Corder**, ME: "Hard to believe I've been at Bell Helicopter for almost 17 years! Enjoying my job of strategic planning and business process engineering for operations." • **Gregory L. Easson**, GGph, became a tenured associate professor at the University of Mississippi in July 2001. • **Valerie J. (Williams) Simpson**, EMgt: "I was recently married to Chuck Simpson. It was delightful to have so many UMR alums present."

### 1985

**Tracie A. Donaldson**, ChE: "I am still working part time for the EPA and raising five active children. I recently changed from the solid waste program to the underground storage tank program."

### 1986

**David G. Barrett**, ChE: "My wife and I, plus our two girls, have moved to Ladue, Mo., and we live at 7 South Tealbrook Drive, Ladue, MO 63141. I am still working for the Ethyl Corp. as an operations area manager." • **Candice Hamil**, GGph, married Charles McGhee on Oct. 3, 1998. • **Kevin Howe**, ChE: "Ruth and I now have two children, Harrison, 2 1/2, and Allison, 8 months. Work

is going well, we are finishing up a \$125 million project." • **Curtis Krueger**, ChE: "Finally, after one year in the Houston area, we are becoming acclimated to the heat and 120 percent relative humidity! **Lisa**, ChE'86, just entered the Executive MBA program at Rice University. Kelsey, 12, is having fun." • **Richard T. Schnoring**, EMgt: "Currently working in the phantom works division at Boeing. Hello to all former fifth floor residents at Thomas Jefferson Hall." • **Suzan E. Siy**, GGph, is employed at Exxon Mobil in Houston, Texas.

### 1987

**Sarah R. Bock**, ChE: "Dan, ME'87, and I are still living in St. Louis. Having fun with our two boys, Kevin, 7, and Michael, 4." • **Joseph Farrow**, ME: "Great to be home. Connie and I are doing fine." • **Robert Ray Holmes Jr.**, CE, MS CE'89: "All is well in Champaign, Ill. Our fourth daughter, Olivia, is now one year old. I am the lone male in the house and loving every minute of it." • **Paul Stephen Korinko**, MetE: "It's been a good year. The job is going well — I was promoted. The kids are growing too fast. I heard from fellow alumnus **Mike Hereleth**, CE'86." • **Martin Rodseth**, PetE, MS PetE'89: "I am still with BP in Norway. This year marked 10 years with them. In December, I started a new position as an offshore installation manager for the Ula, Gyda and Tambar fields. I will be working two weeks offshore and four weeks onshore, including some office work. I am looking forward to the change, new responsibilities and some time off!" • **Matthew O. Scholl**, ME: "Loving life, praying for peace

(Continued on page 40)

## CORRECTIONS

**Alumni Note:** "Thank you for publishing the blurb about my recent retirement, but please note that my wife and I have relocated to North Carolina, not 'northern California,' as was printed on page 37. Let's not let anyone who knows us think that we have moved to the Left Coast!"  
—William Henning MetE'61

**KUMR is 88.5 FM on your radio dial:** On page 14 of the 2001 winter issue, we mistakenly gave the wrong call numbers for Public Radio KUMR. KUMR is located at 88.5 FM. We regret this error.

## Alumni Kids and Grandkids come to UMR and SAVE

Your college-bound child or grandchild could save some significant money by coming to UMR. Accepted students who qualify receive a \$5,500 Alumni Sons and Daughters grant.

### THE REQUIREMENTS:

1. Student must be enrolled full time.
2. Parent or grandparent must be a holder of an earned degree from MSM-UMR.
3. Student must have an ACT score of at least 24 and be in the top 25 percent of his/her high school graduating class.
4. Transfer students must have a 3.2 grade point average (on 4.0 scale); and must have completed 30 hours toward a degree.
5. Student must apply prior to June 15 of the year student plans to enroll.
6. Renewal of the grant, which is limited to four years per recipient, is available to any student receiving the grant who holds a grade point average of 2.75 or above.

For an application or for more information on this grant program, please contact the UMR admissions office at 1-800-522-0938 or through e-mail at [UMRolla@umr.edu](mailto:UMRolla@umr.edu).



### Please Note:

This scholarship will supercede any other non-resident scholarship.



**Jennifer Zung**, CE'94, third from left, is serving as a Peace Corps volunteer in the Philippines. She recently won the women's race in a local mountain bike event, turning in a faster time than many of those in the men's race.

## UMR grad keeps on running

**Dave Dobkowski**, MS CE'93, MS EMgt'95, is still lacing up his running shoes. Dobkowski has participated in 102 marathons in 26 years — more than 2,600 miles in all. That total does not include the distance he has run while in training for the marathons.

As can be imagined, being a serious runner causes Dobkowski's shoe budget to skyrocket. Dobkowski goes through more than four pairs of running shoes a year, averaging 1,000 miles per pair. Recently, though, Dobkowski has been thinking of slowing his running days down in order to spend more time with his 3-year-old son. His love of running will continue, however, regardless of how often he runs a marathon.

and some time off!" • **Matthew O. Scholl**, ME: "Loving life, praying for peace through victory!"

### 1988

**Rickey J. Kennedy**, EMgt: "Chris and I are still happily married and are the parents of five children: Kate, 12, Madalyn, 10, Abbie, 7, Alex, 5, and Grace, 1." • **Lisa Knittel Douglas**, GeoE: "In September 2001 I changed jobs. I am now project manager for the new St. Louis office of the RJN Group doing civil engineering consulting. I had been working for the DaimlerChrysler minivan plant in Fenton, Mo."

### 1989

**Greg Mettlach**, ME, MS ME'91, married Ly Nguyen on July 14, 2001. Both work for Caterpillar in Peoria, Ill.

## 1990s

### 1990

**Robert J. Fischer**, CE: "Cyndy Stover, CE'90, and I have two children, Audrey, 5, and Blake, 1. We reside in south St. Louis County and I am employed by Carondelet

Corp." • **Stuart J. Gardner**, CE, was elected chair of the Colorado Association of Stormwater and Floodplain Managers.

• **Larry W. Lee**, ME, has been employed at Black & Veatch since May 1990. His wife, **Beth (Holtman)**, Math'90, earned a master's degree in physical therapy and worked in pediatrics for two years, but now is enjoying motherhood full time. • **Robin D. Wankum**, CE: "After 10 years of service at Black & Veatch, I changed teams and joined the U.S. Army Corps of Engineers Kansas City District, Formerly Utilized Sites Remedial Action Program (FUSRAP), in January 2001."

### 1991

**Amy Beechner-McCarthy**, Hist: "I serve as the executive director of the Phelps County Community Partnership. I completed my master's in pastoral theology in December 1999. I have two children who attend UMR: **Ben**, CerE, and **Cara**, EMgt." • **Anne Lin Schmidt**, ME: "I quit engineering and got my master's in physical therapy in December 2001."

### 1992

**Tori Linn Harris**, ME: "My wife, **Brooke (Sander)**, CSci'92, and I live in the St. Louis area with our two children, Gillian, 5, and Morgan, 2."

### 1993

**Tony G. Kertz**, ME: "I have moved my wife and two kids to Belgium. I work as a senior design engineer at Caterpillar and am opening an office for our cooling design center, which is responsible for design machine cooling systems. I have responsibility over all of Europe for leading efforts in the design of cooling systems for all of Caterpillar's machines and building strong supplier base relationships. I will be located in our Gosselies plant for four years before returning back to the Peoria, Ill., area."

### 1994

**David E. Crabtree**, ChE: "Doing well. My wife, Elisa, and I have three beautiful children, Matthew, 7, Annelise, 4, and Alessandra, 1. I would love to hear from old classmates."

• **Todd Oppeau**, CE, received his professional engineer license in Kansas in January 2001. He and Amy Weicht were married on Oct. 20, 2001.

(Continued on page 43)

## WHAT'S NEW WITH YOU?

Send us your alumni notes via:

E-MAIL: [alumni@umr.edu](mailto:alumni@umr.edu)  
 FAX: MSM-UMR Alumni Association, (978) 926-7986  
 MAIL: MSM-UMR Alumni Association, University of Missouri-Rolla,  
 Castleman Hall, 1870 Miner Circle, Rolla, MO 65409-0650

## Alumnus inducted into the MSPE Hall of Fame:

**R. David Plank**, CE'59, retired director of engineering services at City Utilities of Springfield, Mo., was inducted into Missouri Society of Professional Engineers' Hall of Fame last August. Plank has been a member of MSPE since 1959.

While working at City Utilities, Plank established the Central Laboratory and was instrumental in the Stockton Water Supply Project, the Blackman Water Treatment Plant, and projects at the James River and Southwest power stations.

Induction into the MSPE Hall of Fame acknowledges the outstanding services of MSPE members and non-members for their investment of time and talent to further the goals of the society.

### In other MSPE news:

- **Kevin C. Skibiski**, CE'75, MS CE'76, of Ozark, Mo., was named president of MSPE. He is the department head for special projects at Scott Consulting Engineers in Springfield, Mo.
- **Marie A. Collins**, MS CE'89, of Maryland Heights, Mo., was elected vice president of MSPE. She is engineering manager for the Project Identification and Capital Improvement Program for Metropolitan Sewer District of St. Louis.
- **Brad R. Parrish**, CE'77, MS CE'78, of Springfield, Mo., was elected as MSPE treasurer. He is co-founder and vice president of Palmerton & Parrish Inc. in Springfield, Mo.

# Y E A R B O O K S

If you've misplaced your yearbook or need another copy, now's the time to get yours. The *Rollamo* office has yearbooks available from 1990 to 2000 (there are a few books available from earlier years). To get the book you want, contact Carol Molchan, *Rollamo* Advisor, University of Missouri-Rolla, 113 UC-W, 1870 Miner Circle, Rolla, MO 65409. There's no charge for the book, just a \$5.50 shipping/ packaging fee to cover costs.

# Future Miners

**Everett Bleakney III**, MinE'83 MSMinE'84, and his wife, Kimberly, had a boy, Thomas Wayne, on Jan. 4, 2001.

**Stephanie Como**, CE'98, and her husband, **Kevin**, CE'96, had a boy, Vincent Bernard, on Sept. 8, 2001.

**Lisa Knittel Douglas**, GeoE'88, and her husband, Stephen, had twins, Scott Stephen and Stephanie Suzanne, in June 2001. They join big sister, Alexia.

**Amy Jo Haddock**, CE'95, and her husband, **Mark**, GeoE'95, had a girl, Summer Jo, on July 13, 2001.

**Robert L. Phillips**, Life'90, and his wife, **Katherine**, NucE'90, had a boy, Ethan, on May 26, 2001.

**Stephen Puljak**, EMgt'92, and his wife, **Stephanie**, ME'92, had a girl, Madeline Nicole, on Dec. 7, 2001.

**Martin Rodseth**, PetE'87, MS PetE'89, and his wife, Siv, had a girl, Anne, on July 4, 2001.

**Mark T. Sautman**, NucE'91, had a girl, Emma Claire, on Oct. 28, 2001.

**David C. Skouby**, ChE'84, and his wife, Diana, had a boy, Nathan Daniel, on Jan. 10, 2001.

**David William Snodgrass**, ChE'86, and his wife, Debbie, had a girl, Kristen, in January 2001.

**Craig Switzer**, CE'98, and his wife, Laura, had a girl, Linda Renae, on Sept. 19, 2001.

**Darrin Talley**, ME'88, and his wife, Sarah, had a boy, Denver Louis, on July 8, 2001.

**Sarah (Hahn) Todd**, MetE'83, and her husband, David, have three future Miners: Dillon, 5; Owen, 3; and Jennifer Jane, 1.

**Thomas L. Tucker**, ME'59, and his wife had a girl, Lauren, on Feb. 24, 2000.

**Theresa Ann Ziegelmeyer**, ChE'85, and her husband, Jim, had a boy, Nicholas James, on May 8, 2001. He joins his big sisters, Emily, Sarah and Beth.



Thomas Bleakney



Madeline Nicole Puljak



Linda Renae Switzer



Denver Louis Talley

If you have a birth announcement or a photo of your new little Miner, send it to us and we'll publish it in an upcoming issue of the magazine.

# Parents —

*Wish your student a Happy Birthday!*



**For just \$15 you can have a personalized birthday cake or fresh flowers delivered to your student on his/her birthday.**



Sponsored by the UMR Parent-Alumni Relations Committee of the Student Council. All proceeds go to benefit UMR's Student Council.

Cakes are purchased from Country Mart. Flowers are purchased from Blossom Basket Florist. The cakes and flowers are individually priced at \$15; however, both items may be purchased for \$28.

If you have any questions or comments, call the Student Council office at (573) 341-4280 or e-mail [stuco@umr.edu](mailto:stuco@umr.edu). Forms may also be completed online at [www.umr.edu/~stuco](http://www.umr.edu/~stuco).

**STUDENT INFORMATION**

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Birthday Delivery Day: \_\_\_\_\_

**PARENT INFORMATION**

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_ Phone #: \_\_\_\_\_

Please attach a sheet with the message to be printed on the cake or the card with the flowers. Please mark the item(s) you are ordering below, and remember to check the options you want for each item. This form may be copied if needed.

**CAKE** CAKE FLAVOR:  White  Marble  Chocolate  
 ICING TYPE:  Whipped Cream  Butter Cream  
 CAKE DESIGN: (Please add \$2.50 for special designs/ No additional charge for floral design)  
 Floral  Baseball  Construction Site  Football  Hockey  Hunter  
 Mickey Mouse Hiking  Nascar Jeff Gordon  Scooby Doo  Soccer  Star Trek  
 Winnie the Pooh, Piglet, Eeyore  Winnie the Pooh and Tigger

**FLOWERS** FLOWER TYPE:  
 Three Roses in Vase  Aloe Plant in Basket  
 Decorated Carnation with Smiley Face

TOTAL ENCLOSED: \_\_\_\_\_

Please mail form with check to:  
 Parent-Alumni Relations Committee c/o Student Council  
 202 University Center West, Rolla, MO 65409-0770



## UMR Parents' Association Board of Directors

**President**

Barbara Robertson  
 13850 State Route O  
 Rolla, MO 65401  
 (573) 364-9539  
[barb@umr.edu](mailto:barb@umr.edu)

**Vice President**

Joseph & Joan Ricca  
 14214 Edinburg Court  
 Houston, TX 77077  
 (281) 556-6343  
[joe.j.ricca@honeywell.com](mailto:joe.j.ricca@honeywell.com)

**Secretary**

Max & Susan Trueblood  
 14075 State Route Y  
 Rolla, MO 65401  
 (573) 364-6392  
[trublud@rollanet.org](mailto:trublud@rollanet.org)  
[trueblud@umr.edu](mailto:trueblud@umr.edu)

**Central Missouri**

Rick & Jamie Arthur  
 PO Box 1700  
 Rolla, MO 65402  
 (573) 364-3268

**Central Missouri**

Mark & DJ Hopkins  
 12319 State Route F  
 Rolla, MO 65401  
[snikpoh1@rollanet.org](mailto:snikpoh1@rollanet.org)

**Central Missouri**

Inge Linsenhardt  
 3131 Country Club Drive  
 Jefferson City, MO 65109  
 (573) 638-2484  
[ingebardt@aol.com](mailto:ingebardt@aol.com)

**Kansas City, Missouri**

Angelina Juarez  
 7714 Washington  
 Kansas City, MO 64114  
 (816) 361-7067

**Kansas City, Missouri**

Diana Martin  
 1317 S.W. Shawnee  
 Blue Springs, MO 64015  
[dianalmartin@msn.com](mailto:dianalmartin@msn.com)

**Kansas City, Missouri**

John & Marilyn McFarland  
 400 W. 115th Terrace  
 Kansas City, MO 64114-5510  
 (816) 942-8271

**Northwest Missouri**

Steve & Diane Epstein  
 7120 N. Atkins Ave.  
 Kansas City, MO 64152  
 (816) 587-5954  
[the.epsteins@att.net](mailto:the.epsteins@att.net)

**Southwest Missouri**

Kathy Christy  
 1942 S. Oak Grove Ave.  
 Springfield, MO 65804-2704  
 (417) 887-0108  
[klchristy@aol.com](mailto:klchristy@aol.com)

**Southwest Missouri**

Larry & Marilyn Cleary  
 10767 County Road 30  
 Reeds, MO 64859  
 (417) 246-5523  
[lmvbdcleary@hotmail.com](mailto:lmvbdcleary@hotmail.com)

**Southwest Missouri**

Michael & Jacque Gage  
 111 Poplar  
 Lamar, MO 64759  
 (417) 682-5808  
[jfishgag@hotmail.com](mailto:jfishgag@hotmail.com)  
[mikegage55@hotmail.com](mailto:mikegage55@hotmail.com)

**St. Louis**

Gilbert & Rhonda Newberry  
 1 Webster Knoll  
 Webster Groves, MO 63119  
 (314) 918-0919  
[armaille@aol.com](mailto:armaille@aol.com)

**St. Louis**

David & Janie Ziegler  
 310 Jamboree  
 Manchester, MO 63021  
 (636) 394-7131  
[zigfam@megsinet.net](mailto:zigfam@megsinet.net)

**St. Louis**

Arnold & Carolyn Cohn  
 14831 Phelps Drive  
 Bridgeton, MO 63044  
 (314) 739-1909  
[cccohn@socket.net](mailto:cccohn@socket.net)

**Members At Large**

Bruce & Virginia Bertelsen  
 13870 S. Seminole Drive  
 Olathe, KS 66062  
 (913) 829-5945  
[bbvb1980@earthlink.net](mailto:bbvb1980@earthlink.net)

**Member At Large**

Charlotte Liefer  
 6898 White Swan Lane  
 Red Bud, IL 62278  
[cliefer@htc.net](mailto:cliefer@htc.net)

**Member At Large**

Jay & Lynn Whitworth  
 250 Parrish Circle  
 West Frankfort, IL 62896  
 (618) 937-2376  
[lynnw@midwest.net](mailto:lynnw@midwest.net)  
[lwhitworth@crowline.com](mailto:lwhitworth@crowline.com)

**Past President**

Joseph Rosenauer  
 238 Cherry Hills Meadow Drive  
 Wildwood, MO 63040  
 (636) 458-7668

**[www.umr.edu/~parents/](http://www.umr.edu/~parents/)  
 e-mail [parents@umr.edu](mailto:parents@umr.edu)**

**1995**

**David M. Borrok**, GGph: "My wife, **Peggy (Keeney)**, LSci'98, and I are living in Kansas City, Mo., where I work for Black & Veatch. We had our first child, David M. Borrok Jr., on June 11, 2001. Peggy was working for the National Cancer Institute's CIS, but is now a stay-at-home mom." • **Sean C. Henry**, CE, received his professional engineer license in February 2000.

**1996**

**Robert Terhune**, GGph: "After graduate school I went to work as a mine geologist in Nevada for 1 1/2 years. I left that position for another mine geology position at one of ASARCO's east Tennessee zinc mines."

**1998**



**Damon C. Horne**, ME, left, has joined Mosley Construction Inc. as a project engineer. In his new position, he maintains client relationships, coordinates materials with subcontractors,

tracks change orders and oversees site progress photography. • **Amanda Rae Retzinger**, CE: "Benjamin Ritzinger, ME'98, and I were married in May 2001. I received my professional engineer license in California in June. We moved to Anchorage, Alaska, in October. Ben was transferred to Elmendorf Air Force Base at that time." • **Jeffrey D. Shelton**, NucE: "Rachel Ragland, NucE'99, and I were married on Sept. 29, 2001, in Gatlinburg, Tenn. We both work for Knolls Atomic Power Lab in upstate New York designing nuclear power plants for U.S. Navy submarines."

**1999**

**Genevieve (DuBois) Bodnar**, MetE, MS MinE'01, was married to **David Bodnar**, CE'99, on Oct. 27, 2001. Attendants included **Tricia Robertson**, Engl'99, **Rebecca (Bown) Taylor**, EE'98, and **Matthew Taylor**, Phys'98. Genevieve is employed by Lafarge Construction Materials in Sedalia, Mo., and David is working for K. Bates Steel Service in St. Louis. The couple plan eventually to live in the same city. • **Peter C. Collins**, MetE,

received a master's in materials science and engineering from Ohio State University in August 2001, and is currently working towards a PhD. • **Christina V. (Eckhoff) Jenks**, ChE: "Steve Jenks, ChE'99, and I got married this summer. Steve finished his master's degree in advanced process control at Oklahoma State University and we are now both working for Conoco in Ponca City, Okla." • **Matthew McLeane**, ChE: "Couldn't be better!" • **Andrew J. Potthast**, CE, has joined Horner & Shifrin as a transportation/civil engineer. He lives in St. Louis.

**2000s**

**2000**

**Lawrence J. Leone II**, MinE: "In November I graduated from Rinker's 18-month training program. I am very happy to be working for such a great company." • **Carrie Beth Wright**, CE, has joined Horner & Shifrin as a structural engineer. She lives in St. Louis. • **Paula M. Wuebbels**, CE, has joined Horner & Shifrin as a transportation/civil engineer. She lives in Highland, Ill.

**GET YOUR GREEN ORDER FORM**

Please mark the quantity of your selection on the line to the left of each item.

**GREENS**

- Youth (small) (\$15)
- Youth (medium) (\$15)
- Small (\$25)
- Medium (\$25)
- Large (\$25)
- X-Large (\$25)
- XX-Large (\$26)

**SPECIAL EDITION**

- Small (\$30)
- Medium (\$30)
- Large (\$30)
- X-Large (\$30)
- XX-Large (\$31)



Special Edition 2002 (royal blue)

**MERCHANDISE**

- Shotglass (\$4)
- Pintglass (\$5)
- Sweatpants (\$15)
- Hat (\$15)
- Garter (\$3)

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY/STATE/ZIP \_\_\_\_\_

PHONE \_\_\_\_\_

Please include an additional \$5.50 for shipping and handling.

Please send this form and your payment to: University Book and Supply LLC, 1735 North Bishop Ave., Rolla, MO 65401. For more information or to place a credit card order call 1-800-617-6750 or (573) 368-5578; or fax this form to (573) 368-5544, or to place an order online, go to [www.umar.edu/~stpats](http://www.umar.edu/~stpats).

**E-MAIL**

**William A. Henning, MetE'61,**  
[billjeanhenning@juno.com](mailto:billjeanhenning@juno.com)

Send us your e-mail address and we'll post it in the next issue of the *MSM-UMR Alumnus*.  
[ALUMNI@UMR.EDU](mailto:ALUMNI@UMR.EDU)

# Rescue 9-11

## WTC attacks bring out the best in UMR alumnus

LIKE MOST AMERICANS, **Steve Winters**, PetE'83, recalls the terror, mass confusion, and chaos that engulfed the United States in the days following Sept. 11, 2001. But Winters saw the horror up close, as a member of Missouri Task Force 1, a group of volunteers who rushed to the aid of the World Trade Center victims and their families. Shortly after the Sept. 11 disaster, Winters was alerted to his impending duty. He was to leave for New York City within six hours of this notification.

On a normal day Winters is a computer programmer at the University of Missouri-Columbia, but from Sept. 11-21 he was a rescue technical search specialist in New York City. His job was to detect and locate victims with the use of cameras and listening devices. He and 61 other team members worked shoulder to shoulder to find live victims and recover the bodies of those who perished in the World Trade Center attacks.

Winters' first reaction to the devastation was one of absolute horror. "It resembled an apocalyptic movie — a sight that no one could ever imagine."

The only way that Missouri Task Force 1 could get close to Ground Zero was by way of the U.S. Coast Guard. Even then, the closest they could get at first was eight blocks away from the point of impact. Winters had hoped to find many survivors, but also felt that it was important to recover as many bodies as possible on the behalf of the victim's families. "It feels good to help bring closure to the victim's families," Winters says.

Task Force 1 is a part of Missouri Search and Rescue, one of 28 search and rescue units in the United States. The training for this program is

extensive and all members are there on a voluntary basis. Every member of the team must be an expert in their field and cool-headed in the face of a disaster. Missouri Task Force 1 uses rescue specialists (firefighters), structural engineers, hazardous materials technicians, communications specialists, canine search specialists, logistics specialists, physicians, surgeons, nurses, technical information specialists and safety officers.

Winters first got involved in the Missouri Search and Rescue in July 1998, after hearing Ken Hines, assistant chief of Missouri Task Force 1, speak at an Optimists Club meeting. Winters then became an official member in January 1999.

The interest to help others in distress has always been on Winters' mind. At age 18, he started the long process of becoming a para-rescuer in the U.S. Air Force but did not finish that journey. He says that he regretted his decision to abandon that pursuit, so he jumped at the opportunity to get involved with Missouri Search and Rescue.

Still, he never thought that he would be involved in a mission that was caused by terrorists. "Up until now we trained mostly for natural disasters such as hurricanes, floods, tornados, and earthquakes," Winters says.

What Winters saw and encountered in New York City will forever remain burned into his memory. He summed up his experience with just one word: "Surreal."

PHOTOS COURTESY OF STEVE WINTERS





Steve Winters



## Scenes from New York City





## Memorials

1933



**Theodore W. Hunt, CE,**  
†Sept. 7, 2001

1934



**Elmer L. McReynolds,**  
MetE, †July 3, 2001

1936

**John H. Hall, CE,** was an engineer at Fiatallis until his retirement. †Sept. 21, 2001

1937

**Glen N. Hackmann, CE,** †June 4, 2001

**Sybil Powell Lange, ChE,** wife of the late Robert C. Lange, ChE'37. Lange's family operated Powell's Lumber and Home Center at Sixth and Rolla streets for more than 90 years. †Aug. 27, 2001

1938



**Charles (Bud) L. Clayton,** MetE, was a member of Kappa Alpha fraternity. After graduation he joined the U.S. Steel Corp. in San Francisco, then Vultor Aircraft Corp. as a research engineer. In 1943, he accepted a position with Columbia Steel Corp. in Chicago, Ill. Clayton moved to Hannibal, Mo., in 1949 as assistant secretary/treasurer with George D. Clayton Building and Loan Association. He became vice president in 1962, executive vice president in 1968 and president and chairman of the board in 1970. In 1974, Clayton Federal Savings merged with Roosevelt Savings of St. Louis, and Clayton was named senior vice president and director. He retired in 1979. Clayton was a longtime member of the First Presbyterian Church in Hannibal, where he served as an elder, trustee and deacon. Clayton also served on many boards and was a dedicated member of numerous other groups. †Aug. 16, 2001

1942

**John C. Austin, ME,** †Jan. 9, 2001

1942



**Bailey W. Hagar, ChE,** was a lieutenant colonel in the U.S. Army. After a brief retirement, he was recalled to service to aid the Army's logistics services during the Korean conflict. That experience led to his work with an elite corps of senior officers who set up new logistics operations for the armed forces. In France, Hagar was involved in the installation of the first computer in Europe. Back in the U.S., he was an executive to the Army engineer unit in Louisville, Ky., assigned to flood control and bridge building along the Ohio River. Following his final retirement from the Army, Hagar worked with the Waco Model Cities and Community Development programs. †June 16, 2001



**Sidney F. Rimel,**  
MetE, †July 29, 2001

1943

**Bruce R. Landis, CE,** †Feb. 14, 2001



**Howard B. Liley,**  
ChE, †June 17, 2001



**Laverne D. Olafson, MinE,** a retired mechanical engineer known to friends as "Ole," went to work for Humble Oil and Refining Co. in Baytown, Texas, after graduating from MSM-UMR. He retired from Exxon in 1982. †Oct. 1, 2001

1944

**William E. Mengel, NDD,** †July 12, 2000



**James R. Miller, ChE,**  
†June 23, 2001

1947

**Ivan B. Lampe, ChE,** †May 24, 2001

1948

**Willis Dallam, NDD,** †March 5, 2001

1948



**Lyle M. Olsen, MinE,**  
†June 22, 2001

1949



**Lennart O. Anderson, ME,**  
†July 27, 2001

**Philip F. Bieber, CE,** †May 8, 2001

1950



**Joseph A. Budzisz, MinE,** served in the U.S. Navy from 1940 to 1945. In World War II, he participated in North Atlantic convoy duty. He was involved in Pearl Harbor and the U.S. invasions of Guadalcanal and the Solomon Islands, Savo Island, Russel Island, Munda, Bougainville, Guam, Saipan, Tinian and the Philippines. After World War II, he went to college for three years at the Wisconsin School of Mines in Platteville, Wis., then transferred to MSM-UMR to earn his degree. Budzisz worked for Firestone Tire Co., as a project engineer for the corporal missile program. From there, he worked for North American Rockwell as a supervisor on the Apollo program. In 1973, he moved to the Central Coast to work for General Dynamics on the Atlas program, for Boeing on the Minuteman program and Martin Marietta on the Space Shuttle program for 11 years. After his retirement in 1987, Budzisz enjoyed gardening, computers, photography, writing for his church newsletter and playing with his grandchildren. †Sept. 1, 2001



**William W. Collins, PetE,** worked for Keplinger and Wane Machinery Petroleum Consultants in Tulsa, Okla., from 1950 to 1959. From 1959 to 1985, he worked at Citibank in New York, where he retired as a vice president and senior petroleum engineer. Collins was a member of the First Presbyterian Church, the Order of the Golden Shillelagh, the Society of Petroleum Engineers, and Pi Kappa Alpha and Theta Tau Omega fraternities. He was also an active officer in the MSM-UMR Alumni Association and the Phelps County Regional Medical Center Auxiliary. †Aug. 1, 2001



**Richard G. Crippen**, PetE, retired from Texaco after 45 years, then spent 10 years as executive director of the Conservation Committee of California Oil Producers. He was a member of Marion Lodge 130, Scottish Rite, Society of Petroleum Engineers, California Independent Oil Producers Association, and Independent Oil Producers Agency. He was also a member, deacon, elder and trustee of Arcadia Presbyterian Church. †Sept. 7, 2001



**Eugene Deppe**, CE, †March 12, 2001



**Warren E. Hagan**, CE, †Sept. 1, 2001



**Francis P. Hercules**, EE, †Sept. 4, 2001



**Robert M. Ponder**, PetE, †Jan. 10, 2001

**J.W. Robbins**, NDD, †UMR notified of death Sept. 20, 2001

**1951**



**Robert Weinel**, CE, †Aug. 28, 2001

**1952**



**Daniel (Clyde) C. Knock Jr.**, CE, was a civil engineer with the Illinois Department of Transportation from 1952 to 1973. From 1977 to 1979, he was a part-time instructor in the civil and environmental engineering department at Lincoln Land Community College. He served in the U.S. Navy as a

subaltern and later as company commander of the Civilian Conservation Corps camps at Sunbeam and Skull Creek, Colo. Knock also served at the Pensacola, Fla., and Corpus Christi Naval Air Force Base. He was an instructor and executive officer of the University of Oklahoma Naval ROTC unit and at Balboa, Canal Zone, on the staff of the commander of the Panama Sea Frontier. †July 18, 2001



**Richard H. Knoebel**, ME, †Feb. 26, 2001



**John B. Nolan**, CE, was employed as a civil engineer by the Illinois Department of Transportation and was the state engineer for historical bridges. He served in the U.S. Army in the 43rd Engineering Division and later in the VII Corps Headquarters "Jayhawks." Nolan was an emeritus member of the First Christian Church and sang in the choir for more than 40 years. He was a member of the Veterans of Foreign Wars, Elks Lodge 158, American Genealogical Society, Audubon Society and was a founder of the Springfield (Ill.) Camera Club. †Sept. 26, 2001

**1953**



**John H. Bender**, CerE, served in the U.S. Army Air Corps during World War II and was stationed in Japan following the war. He then graduated from MSM-UMR and was employed as a ceramics engineer with Kaiser Refractories until his retirement in 1982. Even after retirement he continued to work in the ceramics and steel industry with Refractory Services Corp. in Indiana. In 2000 he retired again. Bender was a lifelong member of Kiwanis and a past officer of several different local chapters. He was a member of numerous professional engineering societies and associations. †Aug. 30, 2001

**1954**

**Nathan E. Crockett**, GGph, †Nov. 30, 2000

**1955**



**Donald B. Harbert**, MetE, †May 20, 2001

**1956**



**Earl Bunney**, EE, †June 27, 2001

**Lee Coffee**, NDD, worked part time for KTTR radio station while studying mechanical engineering at MSM-UMR, and discovered he wanted to pursue a career in broadcasting. He built his broadcasting career in St. Louis with many of the major radio and television stations in the city. †Oct. 22, 2001

**Erhard M. "Butch" Neumann**, MetE, former cyclist who was part of the 1956 U.S. Olympic Team in Melbourne, Australia, and a member of the 1957 World Cycling Team. He specialized in races of at least 100 miles. Neumann worked 36 years for a St. Louis-area metallurgy company before retiring in 1998 and moving to Draper, Utah. In 1996, Neumann carried the Olympic torch in St. Louis as it made its way to the Olympic Summer Games in Atlanta, Ga. †Jan. 28, 2002.

**1959**



**Itsu Arimura**, Phys, received his Ph.D. in physics from Purdue University in 1966 and worked for the Boeing Co. in Seattle, Wash., until his retirement in 1990. †July 24, 2001

**Charles E. Tackett**, GGph, †July 4, 2001

**1961**



**John A. Straatmann**, MetE, †July 19, 2001

**1962**



**James A. Zychinski**, EE, was in the Honor Society while attending MSM-UMR. After graduation he went to work for Union Electric. †July 14, 2001

## Memorials

1964



**Arthur H. Loeschner, EE,**  
†Aug. 15, 2001



**Montie R. Lawson, CE,**  
†Feb. 18, 2001

1969

**Michael Witunski, AE,** †March 31, 2001

1972

**F. Oscar Curth, CE,** †May 10, 2000

1973

**John C. Brinton, EMgt,** †June 28, 2000

1991

**Steve E. Rassbach, EMgt,** was a founding partner of Wiegmann & Associates of St. Charles, Mo. He was a member of Beta Sigma Psi and the National Lutheran Fraternity. †March 17, 2001

2001

**Gerald Lizotte, CE,** was employed by the Missouri Department of Transportation and was killed in a traffic accident. UMR awarded him the civil engineering degree posthumously in December 2001. †Aug. 31, 2001

*Policy*

### for publishing Alumni Notes in the *MSM-UMR Alumnus*

- We are happy to announce weddings, births and promotions, after they have occurred.
- We will mention a spouse's name if it is specifically mentioned in the information provided by the alumnus/alumna.
- The *MSM-UMR Alumnus* will announce deaths if information is submitted by an immediate family member, or from a newspaper obituary. Notification of deaths that have occurred more than two years before the date of publication will not be published unless a special request is made by a family member.
- Obituary information on alumni spouses will be printed only if the alumnus/alumna specifically requests that we print it.
- We will print addresses if specifically requested to do so by the alumnus/alumna submitting the note.
- We reserve the right to edit alumni notes to meet space requirements.
- We will use submitted photos as space permits.

# FRIENDS

**Marguerite C. Anderson,** †UMR notified of death Aug. 28, 2001

**Anne Bennett,** wife of William E. Bennett, ME'53, †Oct. 16, 2001

**Beth Carsman,** †Sept. 11, 2001

**John G. Clark,** †Sept. 10, 2000

**Evelyn Carr Ford,** wife of Ragan Ford, NDD'23, †UMR notified of death Aug. 30, 2001

**Florence Fritz,** wife of Glenn H. Fritz, MinE'47, †April 1, 2001

**Arthur Giuliani,** †UMR notified of death Aug. 24, 2001

**Martha R. "Ruth" Grice,** wife of the late Harvey Grice, a former faculty member, †Oct. 4, 2001

**William Grice,** †Nov. 12, 2000

**John E. Grinstead,** †Aug. 26, 2001

**Berna D. Harvey** joined the UMR staff in 1964, serving as the program director at the University Center, where she worked with UMR's Student Union Board until her retirement in 1984. Harvey was a member of the Phelps County Regional Medical Center Auxiliary and served for many years as a volunteer in the emergency department and the intensive care unit. †Oct. 12, 2001

**W. Louise Jost,** wife of Robert D. Jost, CE'53, †Feb. 14, 2001

**Hansel Lewis,** †Dec. 25, 2000

**Betty McKee,** wife of David B. McKee, ChE'53, †March 14, 2001

**Robert H. Nau,** known to many UMR students as "Papa Nau," was a retired colonel in the U.S. Army Reserve and a veteran of World War II, during which he served in India, China and Taiwan. Nau was an electrical engineering professor and researcher at UMR for 26 years, retiring in 1983. He was an author of two widely used books on electrical engineering. †Oct. 28, 2001

**Marvin A. Parry,** †March 6, 2001

**Betty Perry,** wife of Robert C. Perry, ME'49, †Sept. 3, 2001

**Mary Roach,** wife of Kenneth C. Roach, ME'50, †July 13, 2001

**Barbara Steele,** wife of Kenneth W. Steele, EE'62, †UMR notified of death Oct. 2, 2001

**James A. Powers,** an electrical engineering student, was one of the youngest students ever to enroll at UMR. He was 14 years old when he first began attending UMR. †Oct. 8, 2001

**Donald Schwalje,** †Aug. 3, 2001

**Helen Springer,** wife of Robert M. Springer, CerE'36, †Dec. 24, 2000

**Charles A. Stacey,** †Sept. 27, 2001

**Rodman A. St. Clair,** †Oct. 5, 2001

**William Stricker,** †Oct. 5, 2001

**Bryan M. Williams,** †Sept. 9, 2001



# Hsia and Chao families

As students at UMR in the 1970s, **Richard Yu-Ping Chao** and **David Chung Hsia** spent a lot of time in the University Center. The center was a recent addition to campus then, and central to the lives of many students.

Now, as the center approaches its 30th anniversary, the structure is the focus of a major campus renovation effort. And Chao and Hsia are doing their part to make the University Center the center of attention for future UMR students.

"There is an old Chinese saying: 'When you drink the water from a well, you need to think and express your gratitude to the source of the water,'" says Richard, MS MetE'71, MS EMgt'75. 'UMR prepared me with an excellent education so I can have a successful career.'

"This is an opportunity for us to express our gratitude to UMR," says David, MS Chem'72. "All current and future students need a balanced campus life. Let us provide UMR with a new university center we can all be proud of."

Richard and his wife, June, and David and his wife, Phylis, have pledged \$500,000 toward the renovation and construction of the center as a challenge grant. They're asking other alumni and friends of the university to match their donation to the renovation/construction project.

Richard and David are brothers-in-law – Phylis Hsia is Richard's sister – and both now live and work in southern California. Phylis also was a student at UMR; she came to Rolla from Taiwan in 1969 to study in chemistry, but then transferred to SMSU in order to major in biology.

Richard is senior principal engineer/scientist for Boeing in Huntington Beach, Calif., and David is executive vice president of scientific affairs and co-founder of Watson Pharmaceuticals Inc. in Corona, Calif. Natives of

Taiwan, the brothers-in-law have been active in higher education in the past. Richard and Phylis received the University of California-Irvine's UCI Medal in 1997, and David received the Distinguished Alumni Award from Purdue University's School of Pharmacy in 1998. (David holds a Ph.D. in physical pharmacy from Purdue.) In addition, Richard and June are members of UMR's Order of the Golden Shillelagh. Through their OGS contribution, they established the Richard Y. and June T. Chao Scholarship/Fellowship Fund in 1999. Both Phylis and June are very active in community volunteer work. All four donors believe that America gave them the opportunities to obtain a higher education, develop careers, and raise families. "It is this tradition of generosity of American people that makes this country strong," says David. As a small part of this good tradition, the Chao and Hsia families have contributed to many public and charity institutions, including UMR.

In 1997, UMR students voted to increase student fees to pay for the University Center renovation/construction project. The two UMR alumni couples want to assist students and hope their gift will spur other alumni to donate to the cause. "We challenge all alumni to take part in this important project," says David.



june



richard



david



phylis

1-800-522-0938 [www.umar.edu](http://www.umar.edu)



# Aerospace Camp 2002

July 16-18, 2002, and July 23-25, 2002

*A learning adventure for kids ages 10-13*

For more information about our summer programs  
visit the web at [www.umar.edu/~conted/summerprograms.html](http://www.umar.edu/~conted/summerprograms.html).



UNIVERSITY OF MISSOURI-ROLLA

**The Name. The Degree. The Difference.**