ALUMNUS IS HONORED

KENNETH A. GABLIN '56 was presented the Seventh Annual Distinguished Alumnus Award by Gamma Epsilon at the 1980 Awards Banquet last spring. This honor was given to him in recognition of his successful service to his profession.

When studying for his B.S. degree in General Engineering, Mr. Gabin chose a technical option in marketing and business administration. The summer of 1955 he attended Foreign Trade School at Mexico City College. Later he pursued graduate study in Civil Engineering at the University of Washington.

Upon graduation from UIUC in 1956 Mr. Gabin joined the Trane Company as a salesman, marketing air conditioning systems to architects and engineers. He advanced through the company to Manager in the Northwest.

In 1968 Mr. Gabin was appointed Associate Director, Northwest Division, Mechanics Research, Inc., of Tacoma, Washington. In this position he managed the marketing functions of the firm and helped introduce the company-developed computer program, Stardyne, to the nuclear industry. This highly technical program was used effectively on problems associated with the Power Burst Facility at Idaho Falls, as well as other reactor problems relating to the generation of energy.

He was the inside director of the Nuclear Engineering Company (NECO) from the company's purchase of Protective Packaging, Inc., (PPI) in 1970 until mid 1975. During that five year period NECO researched and entered the transportation and disposal of hazardous wastes under the corporate name of Texas Ecology Company, Inc. Through his direction in both laboratory development and marketing, PPI was the first company to design and market a completely enclosed and automated system to solidify radioactive liquid and slurry wastes that originate in light water and high temperature gas cooled reactors.

With the purchase of corporate stock in NECO by Teledyne in mid 1975, Mr. Gabin became Executive Vice President of Teledyne Unit, Protective Packaging, Inc., and Vice President of the parent firm, Nuclear Engineering Company, Inc. In April, 1979, he resigned from PPI and NECO to establish his own business as a consultant who specialized in the packaging, transportation, and disposal of radioactive and hazardous wastes.

Mr. Gabin is the principal holder of at least eight patents. He has prepared numerous technical papers and reports and participated in conferences dealing with various aspects of radioactive materials.

ANNUAL AWARDS BANQUET

On Thursday, April 17th, 1980, the students, faculty, and guests met at the Ramada Inn for the Annual Awards Banquet sponsored by Gamma Epsilon and the Department of General Engineering. EDWARD J. JASELSKIS, vice president of Gamma Epsilon, presided as Master of Ceremonies.

Twelve of the fifteen students in the spring group of Gamma Epsilon initiatives received their membership certificates from Professor Streeter, Faculty Advisor for the honorary. They were: DAVID B. ABEL '81 from Macomb; CARL W. ALDE '82 of Champaign; FRANK C. FULLER '80, Highland Beach, Florida; PAUL GARCY '81 from Chicago; STEVEN M. HANDS '82, Clarendon Hills; MARK HASEN '82 of Oak Brook; MARK WILLIAM KINDIG '82 from Alton; KEVIN L. KOLTON '81 from Skokie; MICHAEL S. LAZAR '81 of Deerfield; DAVID M. LIPARI '82, Westchester; TODD W. PETERSEN '81 of Elmhurst; and KURT C. SIMON '81 from Topeka, Kansas. Initiates ROBERT S. DAY, JR. '82 of Portsmouth, Rhode Island, SCOTT JENNINGS '82 from Arlington Heights, and JANET KU '82 of Elmhurst were unable to be present.

The design team of WILLIAM J. LENZI, RONALD L. RADLOFF, and RALPH T. WAKELY received the Bernt O. Larson Award from Professor Metz. Their project, "Analytical Study of Compressor Dynamics," was sponsored by General Electric Company. Professor Conry was their faculty advisor.

Professor Knoebel presented the Herbert J. Sprengel Award to the team of JILL A. KOEPKE '83 from Gary, JAMES W. ROGGE '83 of Park Forest, and MICHAEL SCHAVIETELLO '81 from Joliet for their design of a "Variable Resistance Exercise Bike." Their faculty advisor was Professor Hipkind. This award of $60 is given to that team of students in a freshman General Engineering course that develops the best design and submits the best report.
during the past calendar year. The project is judged on the basis of problem identification and design specifications, technical analysis and solution development, and graphical and verbal communications.

JOHN T. LINDERMAN '80 from Danville received the Edward S. Fraser Award from Professor Dobrovolsky. This award, conferred in recognition of high scholarship and participation in university activities, consists of $100 and the placing of the recipient's name on a bronze tablet located in the Transportation Building. John was also named Knight of St. Patrick and had his name placed on the Bronze Tablet, an all university honor.

Professor Martin presented the L. B. Phillips Award to SILVANA A. MEDINA '80 of Joliet in recognition of her scholarship, character, and leadership. Silvana received a check for $100 and an inscribed plaque and her name was placed on a bronze plaque in the Transportation Building.

JOHN M. OLSZEWSKI '81 from Chicago was named winner of the Randolph P. Hoelscher Award and received it from Professor O'Bryant. This award, consisting of a certificate and $75, is presented each spring to the outstanding junior in General Engineering to honor the student's scholarship, leadership potential, participation in activities, including the Illinois Society of General Engineers, and cultural development. The name of the winner is placed on a bronze plaque hanging in the Transportation Building.

MARGARET E. GIBSON '81 of Rock Island and TIMOTHY C. JOHNSTON '81 from East Peoria received the Ingersoll-Rand Awards from Professor Ebert. These awards of $500 each, established by the Ingersoll-Rand Company, are given to two outstanding juniors in General Engineering selected on the basis of their academic achievement, leadership qualities, professional promise, and career interests.


To climax the evening, Steven H. Mitchell presented the Seventh Annual Gamma Epsilon Distinguished Alumnus Award to KENNETH A. GABLIN '56. Mr. Gablin has established his own office in McLean, Virginia, as a consultant, specializing in the packaging, transportation, and disposal of radioactive and hazardous waste.

GROWING ENROLLMENT IN ENGINEERING

The number of undergraduate students enrolled in the General Engineering curriculum has more than doubled in the past 22 years, increasing from 278 in September, 1959, to 610 on August 29, 1980. Included in this group of 610 were 374 continuing students, 208 new freshmen, nine who were readmitted, ten who transferred from other curricula within the university, and nine who transferred into the university from other schools. This is the first time the number of students in the curriculum has reached 600, let alone surpass it, even a little. In fact, it has attained 500 or more only three times in the past, reaching that figure in 1976, 533 in 1978, and 586 in 1979.

Expressed in terms of percentage, students enrolled in General Engineering curriculum made up 7.4 percent of the undergraduates in the College of Engineering in 1959. Although fluctuating up and down, this percentage rose to 12.3 in 1975, was 11.2 in 1979, and now stands at about 11.4.

As enrollment in General Engineering was growing so was enrollment in the College of Engineering. In the fall of 1959 it was 3767, increasing to 4243 in 1976, 4984 in 1978, 5220 in 1979, and 5362 this fall. This growing enrollment necessitates employing more faculty and paying all faculty on a scale competitive with industry. However, present economic conditions have forced the state administration to place a state-supported higher education on a more or less austere budget.

Caught in the squeeze between growing enrollment and a tightening budget, the college is raising the academic standards which a prospective student must meet for acceptance. This fall the entering freshman with an ACT score of 25 had to be in the 95th percentile of the high school class. If, on the other hand, the applicant's ACT score was 32, a rank only in the 76th percentile was required. Thus, the higher the ACT score the lower the percentile required. However, these entrance requirements change as the number and quality of applicants change.

Applicants failing to meet these standards may initiate their engineering studies at other colleges with the intent of transferring to the College of Engineering here upon completion of 60 semester hours which include their basic mathematics sequence through calculus, general physics, and chemistry. Transfer students are admitted competitively, depending on space available. They must have a minimum of 3.5 out of a possible 5.0 average for consideration. However, competitive cutoffs may be higher. A 3.7 was required for Illinois residents and a 4.7 for nonresidents for fall 1980.

PROSPECTS FOR GENERAL ENGINEERS

The young person choosing a profession today not only wants one that will be a challenge to personal skills and interests but will offer employment opportunities at acceptable remuneration. From this point of view, how does the General Engineering student fare?

The Placement Office of the College of Engineering at UIUC on January 25, 1980, conducted a survey of all December 1979 B.S. engineering graduates. According to that survey, twelve of the twenty-eight General Engineers had jobs, four were continuing their education, one joined the military, two did not clear with the Placement Office, five were undecided about which offer to accept, and four were still unemployed. Their monthly salaries ranged from a high of $2001, the highest salary for all engineering graduates in that class of 336, to a low of $1458, $210 above the lowest salary for the class. The average monthly salary for this group of G.E.'s was $1620, just below the midpoint.

As of July 7, 1980, the Placement Office compiled a survey of the 708 engineers receiving B.S. degrees in May, 1980. Of the fifty-four G.E.'s in that class, thirty-three had jobs, nine planned to continue their education, four joined the military, two did not clear with the Placement Office, one planned to travel, four were undecided which offer to accept, and only one was unemployed. Their monthly salaries ranged from a high of $1900 to a low of $1500 with an average of $1697. These were neither the highest nor the lowest salaries for the class. Those were $2125 and $1125 with $1710 as the average.

What salary can the G.E. graduate expect five years after receiving a B.S. degree? Of the thirty-five G.E.'s in the class of 1975, twenty-one answered the Placement Office's
request for information. Their reported monthly salaries varied from a high of $3300 to a low of $1650 with an average of $2170, which was an increase of 108.3% over their average starting salary of $1042. These were fourth below the highest of $4264, eighth above the lowest of $1200, and fourth below the highest of $2388, respectively, for the 333 in the class of 659 who answered.

What happens to the monthly salary of a G.E. in the ten years after graduation? According to the questionnaires returned by twenty-five of the twenty-seven G.E.'s in the class of 1970, their salaries increased to a range of $5500 as the high down to a low of $1389 for an average of $2929, an increase of 234% over their average starting salary of $877. The class as a whole reported a salary range of $5833 high down to $1000 low with $2616 as average, an increase of only 199.7% over the average starting salary, $873. The G.E.'s reported the third from highest salary and third from the lowest, but their average salary and their percent of increase over their starting salary were the highest reported by the 331 of the 683 engineers in that class who returned the questionnaires.

These figures indicate that General Engineers do well over the years.

JETS ACTIVITIES

The JETS office staff is preparing for another successful year. During the 1979-80 school year, JETS/Illinois:

- Conducted a statewide TEAMS (Test of Engineering Aptitude, Mathematics, and Science) contest which is an academic competition between high schools and students in the subject areas of Mathematics, Physics, Chemistry, Biology, English, and Graphics. This involved 3100 superior Illinois students and 250 high schools at 25 college testing locations.

- Sponsored summer programs for post 11th grade students at Bradley University, Peoria; University of Illinois Chicago Circle; and University of Illinois at Urbana-Champaign.

- Sponsored the annual National Engineering Aptitude Search (NEAS) involving 700 high school students in 41 Illinois test locations.

- Served as state coordinating office for JETS chapters in Illinois high schools.

- Co-sponsored the Illinois State High School Science and Engineering Fair.

- Sponsored a minority development program in 19 Chicago high schools involving more than 1000 students.

- Conducted Engineering Design Contests in which high school students apply their ingenuity to design and build devices utilizing engineering principles.

These represent the major activities, although JETS was involved in a number of additional efforts. During the coming year the same programs will be expanded. A special effort is also being made to form a Board of Directors composed of leaders in industry, government, and education. Professor David O'Bryant presently serves as Director of JETS/Illinois and Johnathan Horner is the State Coordinator.

A TRIP THROUGH SOLAR TECHNOLOGY

From August 23rd to September 7th, GREGORY GERARD, a current master's degree student and T.A. in the department, was one of fourteen graduate students selected from a nationally nominated pool of almost one hundred individuals doing research in solar energy to attend an educational tour of U.S. solar energy facilities. The tour was sponsored through the educational offices of the SOLERAS program.

The SOLERAS program was born in 1977 when King Khalid of Saudi Arabia proposed to President Carter that the U.S. and Saudi Arabia cooperate in the basic research, product development, and education areas of solar energy technology. The result of extensive negotiations was a five-year program, dated from June 1978, by which each participant would put up $50 million to be used as dictated by a board of ten composed equally of each nationality. The Solar Energy Research Institute (SERI) in Golden, Colorado, was named the managing operative of all the projects selected for funding. Some projects currently underway are five second-generation cooling facilities in our southwest, five desalination facilities in Saudi Arabia, and a faculty exchange program. Beginning next year, there will be three large (approximately) $1,000,000 each) grants for basic research.

The trip started with three days of lectures at the SERI facilities in Golden, where Americans were joined by fourteen Saudis from King Faisal University and other Saudi schools. The purpose of these lectures was to bring an audience with wide-ranging backgrounds up to an even technical level so its members could appreciate the lecture-tours to come. Leaders in the fields of solar-thermal, photovoltaic, passive architecture, biomass, and solar pond technology came from throughout the U.S. to speak to the group.

The first tour was of the SERI materials research laboratory which deals with the testing of materials designed by industry for use in solar energy applications. The reflectance, strength, and durability of low-cost mirrors is of great concern, as well as new methods of glass production, such as float glass. Also, the absorbance, resistance to ultraviolet degradation, and chemical properties of selective surfaces for absorbers is crucial. The new black cobalt surface, which is expected to replace black chrome as a more durable prime selective, was interesting. Also seen were the various component testing areas where collectors, concentrators and insulation measuring devices were tested and rated.

Next installation to be visited was the Rocky Flats Wind Systems Test Center. Over fifty different wind turbines for generating electricity were discussed. The vertical-axis wind turbine devices (VAWT), such as the Darius turbines, were considered to be about 5% more efficient than the traditional horizontal-axis machines. Further, VAWT's are cheaper to build since all the generating equipment is at ground level. In addition it was brought out, here and at several other locations that VAWT's will probably be the first large-scale solar contributors to the national electric supply.

The first week ended with a tour of the solar village at Colorado State University in Fort Collins. Here all aspects of solar heating and cooling, active and passive, are investigated. Dr. S. Karaki of Colorado State emphasized that only hot water usage was currently economical, and perhaps only in improved active-passive designs could reduce the approximately 5 to 1 cost ratio which presently favors.
conventional heating methods. On a side trip to the university's wind tunnel, the effects of wind-caused stress on solar arrays of all types was observed.

In Phoenix a small commercial photo-cell manufacturing plant was visited. The manufacturing process is extremely labor intensive, thus adding greatly to the cost. The efficiency of such commercially available cells is in the region of 8 to 10%. The major use for such a device is in free-standing refrigerators, and in irrigation systems in developing areas where conventional power generation would be even more expensive. A contractor who builds homes cooled by photovoltaic power admitted that the addition of what is considered a sufficient percentage of the power supply (approximately 40%) raises the cost of the house two to three times. A solar irrigation facility in operation at Coolidge, Arizona, makes use of line-focus concentrating collectors to drive the irrigation pumps. To be cost competitive with conventional means of pumping, twice as much usage of such a facility must be achieved from the site, or overall efficiency must be doubled.

Arizona State University in Tempe was the scene of a whole day of lectures and tours on photovoltaic cells and cooling. The best cooling simulation model verification equipment in the country is located there. This device has an Arclla 3-ton chiller and the ability to simulate many different load demands and insulation distributions which, in combination, make it almost a limitless device. The effect of concentration on selective surface degredation is also studied. Some surprising results are that when many selective surfaces are severely degraded, system efficiency does not drop as expected. Thus, either the surfaces are not very good to start with, or the selective coatings are not as critical as assumed.

The visit to Sandia Laboratory in Albuquerque, New Mexico, was interesting in that all the factors and devices mentioned so far were available for viewing in one area. Of particular interest was a line-focus concentrator developed at Sandia which, under optimal conditions, can operate at thermal efficiencies of almost 60%. The most spectacular display of the trip was the 10MW central tower receiver system. There are 222 mirrors, each 8m square, which focus light energy on a receiver atop a central tower. Temperatures of almost 2000K are developed at the receiver. The tower was in operation during the visit, and special glasses were required to view the receiver which is visible for eight miles. A 10MW facility is being built in Barstow, California, where the lessons learned at this site concerning operation and maintenance will be put into practice.

The final application visited was the utility company which supplies the power to Walt Disney World and the Lake Buena Vista Area. This utility uses solar-thermal and waste-heat recovery technique to supply 25% of the needed energy. The facility has been valuable in that it has shown how poor location of storage tanks, errors in piping arrangement, and control problems drop the efficiency of the systems.

The SOLERAS educational tour program has been renewed by the SOLERAS committee for the next three years.

AGAIN!

Once again students in the General Engineering design courses have won awards in the year's Student Engineering Design Competition sponsored by the James F. Lincoln Arc Welding Foundation. Each of three designs teams received Fourth Award, all in the mechanical category; making a total of sixteen awards granted to G.E. students at UIUC in twelve years.

The team of DOUGLAS P. GOETZ, BRUCE A. KRANDEL, and DAVID A. THOMPSON received an award for their project, "Design of a Low-Cost Load Cell." Mr. Charles F. Gebhard and Professor Henrique L. M. dos Reis were consultants on this project sponsored by Warner Electric Brake and Clutch Company.

An award was granted to the team of DAVID V. ADAMS, JOHN R. DONOVAN, and EUGENE W. KIESEL for their project, "FMC Pin Sorting Machine." FMC Corporation-Chain Division was sponsor and Professor W. Brent Hall served as consultant.

The project, "Smart Exercise Bicycle," by BRIAN G. EBERLE, JEFFREY M. FRAME, JOHN C. O'CONNOR, and THOMAS R. ORGALER received an award. Professor Roland L. Ruhl served as consultant on this project which was sponsored by the Department of General Engineering.

MICHAEL S. LAZAR

A SUMMER IN SPAIN

Last summer MICHAEL S. LAZAR '81, Deerfield, worked for Insolar, Inc., a relatively small solar energy consulting firm in Madrid, Spain. Mike found this position through the International Association for the Exchange of Students for Technical Experience (IAESTE), a branch of the Association for International Practical Training (AIPPT). The company requested an engineering student with a background in thermodynamics and fluid mechanics, a basic knowledge of solar systems, and some knowledge of Spanish. For Mike this last turned out to be the understatement of the trip since the company personnel were all Spanish and none spoke English. However, he had no problem meeting the first two requirements, having worked on a solar energy design project in G.E. 104 and completed some solar research on his own.

Insolar, being a small company, initially was unable to provide much direction or supervision to Mike's work. He, therefore, went on his own way in the company, pursuing topics where he felt he could make a contribution. Mike started out making the heat loss calculations for various buildings, given the the blueprints and other technical information as needed. Applying his knowledge of present value costing, Mike took on the job of developing an economic analysis of the solar systems under consideration, i.e., determining the economic feasibility of implementing a given design in a given location. This work involved the topics of present value, rate of return, payback period, etc.,
which he studied in G.E. 238. Once the economic analysis was accepted, a computer program had to be developed, using the company’s recently acquired computer system.

Mike found his three years of high school and one year of college Spanish completely inadequate. To survive the summer with a peace of mind he had to learn and understand spoken Spanish. An important part of his work was to translate into Spanish technical information that is published only in English since none of the employees at Insonar spoke or read English. Another reason for learning Spanish was the fact that Mike was the only American living with about 300 Spaniards and South Americans in a dormitory at the University of Madrid.

Mike's salary was practically exhausted after paying his room and board. Consequently, the social tab had to be paid out of his own pocket. However, he found the social life to be great, always meeting new people and going out almost every night to bars or other popular night spots.

One aspect of the trip which Mike found to be of great value was his freedom to travel. Since his plane arrived and departed from London he allowed a week for travel going to and coming from Spain. Mike also made several trips during his "working" period, spending six days in southern Portugal, three days in Cordoba, two days in Seville, and four days in northwestern Spain.

All in all, Mike found his summer working abroad to be extremely worthwhile as both an educational and cultural experience. He strongly recommends that anyone interested in working abroad should check out the IAESTE program for the summer of '81.

JUDGE ROGER H. LITTLE

JUDGE LITTLE DIES

ROGER H. LITTLE '50, LL.B. '53, presiding judge of the Champaign County Circuit Court, died August 19 at home in Champaign after a two-year battle with cancer.

He graduated from University High School in 1944, the year in which that school's basketball team of which he was captain, defeated both Champaign and Urbana high schools to win his school's first Champaign County championship. He enlisted in the Navy during World War II and was recalled to duty during the Korean War.

As an undergraduate at the University of Illinois, Judge Little was a student senator, a member of Alpha Delta Phi fraternity, Tribe of Illini, I men's Association, and the varsity tennis team. In fact, he was captain of the tennis team that was the Big Ten runner-up in 1950. He graduated with honors in General Engineering in 1950 and from the College of Law in 1953.

After completing his law studies, Judge Little practiced law in Springfield until he was appointed an assistant Champaign County State's Attorney in 1959. In 1962 he was elected probate judge in the county.

Judge Little became an associate circuit judge when the Illinois judicial system was reorganized in 1964. He was successful in his bid for retention in 1966. Upon the election of Frederick S. Green Com. '49, LL.B. '51, to the 4th District Appellate Court in 1974, he was named circuit judge. He became presiding judge of Champaign County Circuit Court when Judge Birch Morgan retired.

Surviving Judge Little are his wife, a son, three daughters, his mother, two brothers, and a sister.

FACULTY NOTES

Professor and Mrs. JERRY S. DOBROVOLNY proudly welcomed twin grandsons this summer. Christopher Collins and Spencer Baker Dobrovolny were born August 6 to James L. Dobrovolny, G.E. '71, and his wife.

Professor THOMAS F. CONRY has just completed his term as chairman of the executive committee of the ASME Design Engineering Division. This year he is going to take a "sabbatical" from his ASME activities to catch up on research and writing. During the summer he completed a report for NASA on "Transient Dynamic Analysis of High-Speed, Lightly-Loaded, Cylindrical Roller Bearings" and submitted a paper for the 1980 ASME Symposium on Solid Contact and Lubrication entitled "Thermal Effects on Traction in EHD Lubrication." He was invited to participate at the ASME Education Conference and Workshop held in San Francisco, California, in August.

Professor OSMAN COSKUNOGLU has learned that his Ph.D. dissertation, entitled "Large Scale Optimization Procedures for the Conjunctive Use of Surface and Ground Water Resources," was selected as the outstanding dissertation in the School of Industrial and Systems Engineering at Georgia Institute of Technology during the 1979-80 year. Last winter he received from the University of Illinois Research Board a grant to support a graduate research assistantship and computer equipment for the Spring 1980 semester. The research project thus supported was entitled "Decentralized Control of Large-Scale Water Resources Systems." As a result of this research, Professor Coskunoglu has written a paper and submitted it for presentation to the IEEE 19th Conference on Decision and Control in Albuquerque, New Mexico, on December 10-12, 1980. The paper, entitled "A Decentralized Control Strategy with an Application to the Regulation of a Water Reservoir System," has been accepted and will appear in the Proceedings of the Conference.

Since the last Newsletter, Professor WAYNE J. DAVIS was promoted to Associate Professor and granted tenure in the College of Engineering. This was the highlight to a very enjoyable summer.

His summer's work included the usual research efforts. In addition, Professor Davis continued his role as a consultant to the State of Illinois Emergency Services and Disaster Agency for Nuclear Response Planning. That effort will culminate with the submission of the Illinois Plan for Radiological Accidents to United States federal agencies, including the Federal Emergency Management Agency, Nuclear
Regulatory Commission, Department of Energy, and others, for their approval near the end of September.

Professor Davis relieved the hours of tedium in the office with swimming, running, playing volleyball, and taking tennis lessons. His sporting activities were highlighted by a white-water rafting trip on the Ocoee River in Tennessee. To improve his manual dexterity at the computer terminal, he is taking guitar lessons.

Professor W. BRENT HALL spent the summer developing computer programs to solve problems in the area of reliability of structures. One item of investigation was the formulation and solution of probabilistic models for load testing of structures; that is, the use of load tests of one or more prototypes to ensure adequate strength and safety for all components in a lot. Guidelines are needed for the use of load tests in structural design as an alternative to some, or even all, of the conventional design by calculation. Professor Hall completed a research report on the topic and is presently writing a paper on new work in the area.

Professor Hall is also studying structural optimization problems such as the optimal allocation of funds for bridge maintenance at local, regional, and national levels. This allocation problem becomes especially important under insufficient budget conditions when a region must minimize the loss of use of bridges and the future costs incurred by lack of funds for maintenance and replacement in the current year. This is the topic of another paper which Professor Hall will soon submit for publication.

Professor Hall spent a ten-day vacation traveling in parts of the midwest and his native Canada, crossing as many bridges as possible and resting in nearby campsites on the way.

During the summer Professor RODNEY HUGELMAN attended the General Electric Management Institute, along with about 20 other persons selected from university faculties around the country. Its purpose was to promote University/Industry cooperation in education, and to present General Electric's suggestions as to how this might be done. He had the privilege of outlining our Design Program and the G.E. 242 Senior Design Program in particular. It was well received. Indeed, the listeners seemed awed by the scope and success of our program. We all should feel a sense of satisfaction, privilege and accomplishment in being a part of this forward thrust in Engineering Education.

Later, he and his wife Sharon left on a tour of the western states—6400 miles by motorcycle. A marvelous experience they shall not soon forget. Mrs. Hugelman is already planning on Canada for next summer. The tour was capped by the Vetter Corporation Motorcycle/Industry rally at Colorado Springs. Vetter had requested a series of lectures on our UIUC motorcycle safety studies and the aerodynamic drag of motorcycles with fairings attached. Again, the presentations were well received and a tribute to the fine work that has been done by our G.E. 242 students in this area.

Another accomplishment was the development of a Data Management System and the filing of all G.E. 242 reports, sponsors and other data on this computer based data management file. This has tremendously eased the burden of G.E. 242 paper work, particularly the contact of interested sponsors, and we hope will smooth the G.E. 242 program in the future.

Spring semester was a busy one for Professor L.D. METZ. He served as chairman of a committee to evaluate the new undergraduate program in Theoretical and Applied Mechanics, and was also a member of the COPE committee evaluating the Department of Secondary Education. He was honored as the only faculty initiate to Tau Beta Pi in the spring, and was particularly pleased because John Linderman and Silvana Medina, both G.E.'s, were officers of that honorary during his initiation.

Professor Metz is currently working on three research projects. One, almost finished, is concerned with the total energy/unit distance consumed by a bicyclist. The paper being finished contains both experimental and theoretical results. A second work is concerned with a computer generated scheme usable by law enforcement crime laboratories for identification of bullets and other firearms identification. Professor Metz has applied for a $90,000 grant from LEAA to pursue this research further. Finally, he and Martin Risely '77, a G.E. grad now completing an M.S. in E.E., are beginning a paper on human control performance.

For the 1980-81 academic year, Professor Metz will be on leave at California Polytechnic State University, San Luis Obispo, California, teaching and doing research in Mechanical Engineering. He says that Cal Poly "made him an offer he couldn't refuse" as the Godfather would say! He plans to spend at least one year in California and will then either return to UIUC or stay permanently. He invites G.E.'s in California to visit for handball and cold beer.

Professor MICHAEL PLECK, who began a sabatical leave of absence at Cornell University on January 4, recently completed the second leg of his leave at Hokkaido University, Sapporo, Japan. He has since made the transition back to full duties at the University of Illinois.

Professor Pleck worked in the Sibley School of Mechanical and Aerospace Engineering at Cornell University until May 30. He completed the initial phase of his research in two areas of the TIPS-1 geometric modeling system for Computer Aided Design and Manufacturing (CAM-I) Organization contract at Cornell for the implementation, documentation, testing, and evaluation of TIPS-1 for the international community. He presented a progress report to CAM-I in Albuquerque on behalf of Cornell University in May. While in Albuquerque he presented two papers to a Department of Energy Geometric Modeling Seminar hosted by Sandia National Laboratory. They dealt with the TIPS-1 geometric modeling system concept and the use of geometric modellers in the Cornell University Injection Moulding Project.

Also in May, Professor Pleck attended a meeting of Committee ANSI Y.14.26 considering standards for the computer aided preparation of product definition data. In part, this standardization effort is attempting to facilitate the communication between CAD/CAM systems including those dealing with geometric modeling. While en route Professor Pleck visited Rensselaer Polytechnic Institute Computer Graphics Center. This center is the foremost U.S. University installation of hardware and software for CAD/CAM applications in engineering.

On May 30 Professor Pleck traveled to the island of Hokkaido, 800 miles north of Tokyo, to take up a summer position as Visiting Scholar in the Institute of Precision Engineering in Hokkaido University's Faculty of Engineering. There he worked with Professor N. Okino, the originator of TIPS-1 system, and his staff. Professor Pleck completed his research in devising a scheme for determining moments of inertia for parts defined in the TIPS-1 system, furthered his studies into a potential interface between TIPS-1 and a boundary file (vertex, edge, face-like) scheme.
being considered by CAM-i, and launched a related study into the feasibility of evaluating surface areas for parts defined in the TIPS-1 geometric modeling system.

While in Japan, Professor Pleck visited the University of Tokyo and several companies to see first hand the state of the art in geometric modeling and robotics applied to machining centers and assembly line production. At the conclusion of his stay in Sapporo, Professor Pleck presented three working papers to a TIPS Research Association meeting covering aspects of his sabbatical research and investigations.

At the end of the school year in Ithaca, Professor Pleck's family, except their youngest daughter, joined him in Sapporo. Their activities there included visits to Japanese professors' homes, a tour of some outlying areas on the island of Hokkaido, and a six day trip to Kyoto, Nara, and Tokyo. All the family present greatly enjoyed this Japanese experience at the conclusion of an intensive research-oriented sabbatical period.

Professor HENRIQUE L.M. dos REIS' research interests are in the general area of dynamic plastic behavior of structures. His research includes plastic and creep buckling, optimization of structures, and plastic analysis of anisotropic structural elements. He is currently engaged in the study of buckling of filamentary composite laminates.

EDWARD N. KUZNETSOV THOMAS R. WOODLEY

NEW FACULTY

Dr. EDWARD N. KUZNETSOV is a professor of General Engineering who joined the faculty in August, 1980. He graduated in Structural Engineering from the Moscow Civil Engineering Institute, USSR, received his Candidate of Technical Sciences degree from the same institute and Doctor of Technical Sciences degree from the Central Research Institute of Structures, Moscow.

Prior to coming to the University, he worked for the Research Institute of Reinforced Concrete and the Central Research Institute of Structures in Moscow and Battelle Memorial Institute in Columbus, Ohio. Over a period of years Dr. Kuznetsov has worked on R&D projects involving design, analysis and optimization of shells, membranes, thin-sheet, fabric and pneumatic structures, cable and band-formed systems for suspended and air supported roofs, large natural draft cooling towers, hot or cryogenic product pipelines, etc. His current research interests are in development and analysis of tensile structures for building and machinery.

Dr. Kuznetsov has authored some fifty technical publications including two books and two invited reviews, and holds two patents.

Doctor THOMAS R. WOODLEY is Lecturer in General Engineering. He joined the department in August, 1980, following eighteen months as Visiting Assistant Professor in Mechanical Engineering at the University of Illinois and, prior to that, a career in the U.S. Army.

Entering the Army during World War II, he attended the University of Illinois in 1944, Pennsylvania State University in 1945, and entered West Point in 1946. He received his B.S. from the U.S. Military Academy in 1951. He received his M.S. in 1958 and his Ph.D. in 1979, both in Theoretical and Applied Mechanics from the University of Illinois.

In addition to the usual command assignments in the Army, Dr. Woodley was Assistant Professor of Mechanics at the U.S. Military Academy from 1958 to 1961, Chief of Combat Vehicle Testing, 1962 to 1965, and Chief of Mid Range Plans in the office of Army Chief of Research and Development, 1966 to 1969. His last active duty assignment was as Professor of Military Science at the University of Illinois.

His research interests are dynamic stress analysis, elastic and plastic waves, and off-road vehicle suspension systems.

Dr. Woodley is a member of the Society of Automotive Engineers and the Society of American Military Engineers.

I.S.G.E. ACTIVITIES

The Illinois Society of General Engineers is off to a great start this fall and is looking forward to a successful year. This year's officers are: President, MICHAEL S. LAZAR '81 from Deerfield; Vice President, ROBERT S. DAY '82 of Portsmouth, Rhode Island; Treasurer, MARK M. TROHA '82 Savannah; Secretary, TALI ABEL '83 from Wilmette; Engineering Council Representatives, BRADLEY S. GREGOR '81, Edwardsville, and David M. Yanow '81 of Des Plaines.

Engineers Night was held September 3 at the Illini Union. I.S.G.E. sponsored an exhibit and recruited many new members.

At the first meeting on September 8 plans were made for the coming year. Attendance at the meeting was more than anticipated and the hope is that it will be even more in the future. Committees were formed to run the activities for the year.

The annual I.S.G.E. picnic was held on September 22 at Illini Grove. The weather was beautiful and the event was an overall success for the forty or so people who attended.

A field trip to the Concrete Products Division of LaBarge, Inc., here in Champaign was held on Thursday, October 23. The company demonstrated a new process for pouring prestressed concrete beams.

It was decided that the General Engineering students and faculty needed T-shirts that all could wear, so I.S.G.E. sponsored a G.E. T-shirt contest. Eleven entries were received. The winner received a $25 gift certificate from the Art Coop in Champaign. The shirts are available to all students, faculty, staff, and alumni in General Engineering for a price of about $4.00. The winning design and a
The sign-up sheet for those wishing to buy one are in the Transportation Building.

I.S.G.E. is sponsoring a speaker's program this year. The first speaker was Bruce Alexander of Ingersoll-Rand who spoke on "General Engineers in Industry," October 15. Plans are in the making for future speakers from Sunstrand Corporation, John Deere, Inc., and others.

The annual Strike O'Bryant Bowling Tournament will be held on November 15 at 1:30 P.M. at the Arrowhead Lanes in Champaign. The students will beat the faculty this year. All students and faculty are encouraged to enter.

All of the G.E. showcases in the Transportation Building will be renovated this year. HAROLD DANIELS '81 from Des Plaines will direct the project.

Engineering Open House will be twice as good as in the past for the G.E. department this year with two hard working chairmen, RORY H. DUNN '82 from Skokie and BRUCE GOTTEINER '81 of Glenview, in charge.

The upcoming year will be one of the busiest and best ever for I.S.G.E.

G.E. DEPARTMENT SCHOLARSHIP

The G.E. Department Scholarship for 1980-81 has been awarded to DAVYD PAUL McGINNIS '82 of Chicago. This scholarship of $500 is awarded to a General Engineering student above the level of freshman for one academic year on the basis of financial need and high scholarship.

SOME CHANGES ARE MADE

Upon the retirement and departure of Professor Ebert in August, Professor O'Bryant was appointed to direct the undergraduate advising in General Engineering. Professor Conry was named to advise the graduate students in the department's Master's Program. These new duties of O'Bryant's are in addition to his responsibilities as State Director of JETS. However, Johnathan Horner, as State Coordinator for JETS, is helping him with that activity.

For these men to coordinate their activities efficiently, their offices must be close to each other. To accomplish this the offices at the south end of the second floor corridor were remodeled into a suite. O'Bryant moved from his two offices into Ebert's former office. Horner took over the space formerly occupied by Mrs. Carolyn Roberts. Conry moved from his 1st floor room in the basement to the office that Horner formerly used. To make a control center for the suite, Professor Wilson was moved to O'Bryant's former office at the north end of the second floor corridor and her old office was enlarged for the use of Mrs. Marilyn Butler and Mrs. Roberts. The former JETS office was taken over by Professor Streeter, who has returned to the department from his part-timeanship, and Professor Karlstrom.

NEWS OF GAMMA EPSILON

The officers of Gamma Epsilon for 1980-81 are: President, JOHN M. OLZEWKSI '81 of Chicago; Vice President, THOMAS Y. PETERSON '81 from Rock Island; TIMOTHY E. TUCKER '81, Blue Mound; Treasurer, DAVID B. ABEL '81 from Macomb; and Director and Engineering Council Representative, ROBERT S. DAY '82 from Portsmouth, Rhode Island.

Plans are set for the General Engineering Fall Banquet, which will be held at University Inn on November 13. THOMAS A. PRICKETT '60, a G.E. alumnus presently with the Camp, Dresser, McKee consulting engineering firm will be the speaker. Gamma Epsilon also sponsored a field trip with I.S.G.E. to LaBarge, Inc., maker of prestressed concrete beams, on October 23. Other activities on the schedule include peer advising and "taking a Prof. out to lunch."

ALUMNI NEWS

'28 RUDOLPH (RUDY) F. LOTZ is an engineer gone wrong, ending up as the chief financial officer of Virginia Chemical. He is now retired from his position as vice president and treasurer of that company. In his retirement he has written a book suggesting a better method of getting control and results than accounting.

'39 MAYNARD M. HUFSCHMIDT earned a master's degree and a doctor's degree in 1964, both in Public Administration from Harvard University. After serving in the Department of City and Regional Planning of Chapel Hill for a number of years, he is now a research fellow at the East-West Center of the Environment and Policy Institute in Honolulu.

'49 RUDOLPH G. LARSON is working on a contract basis with Salem Engineering of Oak Brook, Illinois.

'50 After eight years as an instructor in the Department of General Engineering, DONALD H. RIMBEY moved to the University of South Florida in 1967 to become professor of Mechanical Engineering. Last June Don took early retirement from that position to be president of Rimby, Howell, and Rimby, Inc., a Tampa-based engineering consulting firm.

'51 JAMES H. CHAPPEE has been with the space program since the days of Mercury. He is presently Deputy Chief Safety. His firm of System Safety Associates has been active since the early seventies.

'54 WILLIAM E. GETZEN, also L.L.B. '59, was named University of Illinois College of Law Alumnus of the month for April. Getzen, a partner in the Sarasota law firm of Williams, Parker, Harrison, Dietz, & Getzen, specializes in condominium law. He is a former president of the Sarasota-Manatee Illini Club, the Sarasota County Bar Association, and the Rotary Club of Sarasota. Presently he is a member of the condominium committee of the Real Property Section of the Florida Bar Association.

'57 GARY L. NEWTSON was recently appointed Chief Patent Counsel for Chrysler Corporation. He is responsible for counseling and representing the Corporation on legal aspects of patents, trademarks, and copyrights. Newtson joined Chrysler Corporation in 1966 as a patent attorney and was named Assistant Patent Counsel for the firm in 1977. Prior to joining Chrysler he served as a patent examiner in the U.S. Patent Office in Washington, D.C. Before that he was engaged in the private practice of patent law with firms in St. Louis and San Francisco. Newtson earned his L.L.B. degree from the American University, Washington College of Law. He is a member of the State Bar of Michigan, a past president of the Michigan Patent Law Association, and currently serves as a member of the Board of Directors of the American Patent Law Association.

'58 BANFIELD (BAN) R. CAPRON has been branch manager of the Houston office of the Johnson Controls, Inc., for the past seven years. This is an office of 80 people deeply involved in energy conservation and automatic control systems in the commercial construction field.
'60 JOHN R. GREEN, Jr., joined Rockwell International Corporation in 1971 as vice president of operations for the company's Automotive Division, after 11 years in executive positions with Chrysler Corporation. After several positions in operations and general management in Rockwell's Automotive, Industrial, and Aircraft Divisions, he moved to the Admiral Group in 1974. Between 1974 and 1976 Green held a number of executive posts there. He then returned to Rockwell's corporate headquarters as staff vice president, Corporate Operations. In June, 1978, he returned to Admiral as executive vice president and was appointed president of the Group in March, 1979. Green has continued in this position even though Admiral was taken over by Magic Chef, Inc., one month later.

'60 THOMAS H. WALKER has left the military and returned to civilian life. He is now a senior programmer/analyst for Ithaca Computing Enterprises in California.

'63 This spring the engineer turned banker, SAM L. LEEPER, who had been with Champaign National Bank since 1970, and had served as its executive vice president since 1977, resigned to accept a similar position with the First National Bank of Greeley, Colorado. At this bank, which is a member of First National Bancorporation, Inc., of Denver, Leeper will be responsible for administration of commercial loans, convenience banking, operations, and personnel.

'66 CARL E. JASKE is a senior research scientist at Battelle's laboratories in Columbus, Ohio. Jaske received his M.S. in Theoretical and Applied Mechanics from UIUC in 1967 and is currently a Ph.D. candidate in Metallurgical Engineering at Ohio State University. His dissertation research is concerned with developing an understanding of creep-fatigue crack growth in metals. Last spring the American Society of Mechanical Engineers awarded him a certificate for his services to the Society and the ASME Boiler and Pressure Vessel Committee. His wife, the former Donna Ortgiesen, AAE '67, is a senior systems analyst with Ross Laboratories. They have two daughters, five-year-old Lisa and one-year-old Karen.

'66 JOHN R. WEIBEL received his M.A. in Industrial Management from Central Michigan University in 1976. Presently he is Manager of Quality Assurance for Communications Group, Systems Division of Motorola, Inc.

'68 After twelve years with Illinois Bell Telephone Company, TERRY LEE BEQUETTE left to be Director of Engineering for Rockford/Park Cablevision, Inc., in Rockford. In this position Terry is responsible for construction, maintenance, and expansion of the system.

'69 EUGENE W. G. DAVID is still with the Applied Physics Laboratory at Johns Hopkins University.

'69 RUSSELL E. EWERS was employed by Chicago Bridge and Iron Company until 1977. At that time he joined a firm of consulting engineers in Lincoln, Nebraska. He left that firm after two years and is now employed in Phoenix, Arizona.

'69 JOHN E. GILSTER is Assistant Professor in the Department of Finance at the University of Illinois in Urbana.

'70 EARL S. MOLDOVAN is a partner in Group III, Consultants, in Washington, Illinois. The firm has expanded to two offices in Illinois and one in Houston, Texas. He was winner of the ISPE Young Engineer of the Year Award of the Peoria Area Chapter and the State of Illinois for 1979-80. On the side, Moldovan is teaching courses in basic, intermediate, and advanced water treatment at Illinois Central College in East Peoria.

'71 BRUCE R. HOLOCEK is president of Tower Hobbies, a mail order retail business that specializes in sales of radar-controlled model airplanes, cars, and practically anything else. Since being started in 1971 in the basement of a rented town-house with an investment of $800, it has grown to a multimillion dollar business employing about 90 persons. This fall Bruce expects to move his business operation and his inventory warehouse from their separate locations to a new 41,400 sq. ft. building on a three-acre site on the northwest corner of Champaign.

'72 In May, 1979, RICHARD A. FORBES received his M.S. degree in Thermal and Environmental Engineering from Southern Illinois University at Carbondale. He has been a registered professional engineer in the State of Illinois since 1976. On May 1, 1980, Dick became Manager, New Source Review Unit, in the Division of Air Pollution Control of the Illinois E.P.A. He was previously employed as a supervisor in the Private Sewage Program of the Division of Engineering, Illinois Department of Public Health in Springfield. Dick and his wife, the former Sheva Renee Cannell, Food Science '72, have five children: Timothy, the oldest, Jeremy, Gregory, Jennifer, and Tiffany, the youngest.

'72 SHULAR R. SCUDAMORE received his M.B.A. from Illinois Benedictine College on May 18, 1980. He is Marketing Manager, Engineered Products, Stephen-Adamson Inc., of Aurora.

'73 Since April, 1980, JOHN F. HOFFMAN has been a senior fire protection engineer for Bendix Corporation in Kansas City, Missouri. John was married in October, 1979.

'73 In November, 1979, Zenith Radio Corporation appointed BRUCE A. HUBER as Director, Product Planning, Color Television. Bruce joined Zenith's marketing department in 1974 as a product planner for black-and-white TV. From 1976 until 1978 he was Marketing Services Manager for a company subsidiary in Switzerland. In 1978 he became Color TV Product Manager. Prior to joining Zenith, Bruce was a project engineer with Proctor and Gamble Manufacturing Company. He has an M.B.A. from Harvard Graduate School of Business Administration. His wife is the former Joyce E. Rocke, B.S.'73, EDM '74.

'73 MICHAEL F. PURCELL received an M.S. in Computer Science from Villanova University on May 18, 1980. He is currently employed by Burroughs Corporation as project manager.

'74 In October, 1979, GARY F. CORNELIUS was transferred to U.S. Steel Corporation's Gary works from Joliet. He received his professional engineer certificate last February.

'74 KATHRYN A. DAVIS received an M.S. in Civil Engineering from UIUC in 1975. Since May, 1977, Kathryn has been with CH2M Hill, a consulting engineering firm in Bellevue, Washington, where she is a project engineer and project manager in the geotechnical department. In July, 1980, she became a registered professional engineer in the State of Washington. Her professional activities include serving as Director, District 14 (Alaska, Idaho, Oregon, and Washington) for Tau Beta Pi, 1980-82, and as chairman of the publicity committee for ASCE Cold Regions Conference in Seattle, April, 1981. She recently stepped down as co-chairman of ASCE Seattle Section, Geotechnical Division. For recreation, Kathryn plays trombone in the Bellevue Community Band, teaches a floor exercise class at the local YMCA, jogs, plays raquetball, and goes skiing on the snow.
'74 NEAL C. NEALIS, DDS '79, enjoys living in Oak Park and is doing well in his dental practice. He anticipates a full partnership before the end of the year. Neal's wife Randee presented him with their first child, Courtney Jean, on February 29, 1980, of all days. Neal was glad to hear of Paul Newhagen's success and says, "Hi," to all of his former classmates.

'74 LARRY P. RANDALL is working for Chicago Bridge and Iron Company in Hunterston, Scotland, where CBI is responsible for the fabrication and construction of a $100 million "gravity type" oil production platform in the North Sea for use by Phillips Petroleum Company. His primary duty is to work with various British fabricators to assure that platform components are supplied to correct dimensions.

'75 GREGORY P. KONNEKER has been promoted to Senior Industrial Engineer in the Carton and Container Division of General Foods Corporation. Greg is responsible for new plant and product feasibility studies for the division and for the purchase and installation of production equipment for a new product which the division will be making.

'75 RONALD A. SMITH is vice president of Christiana Industries Corporation of Chicago.

'75 BRUCE R. BARTHOLOMEW received his master's degree in Management from Northwestern University last June. He is a project engineer with UARCO, Inc.

'75 Last February BRUCE K. COLTER was appointed Midwestern Sales Manager for transmitters for Honeywell Process Control Division, Honeywell, Inc.

'76 JAY D. RANKIN worked at Illinois Environmental Protection Agency for four years, during which time he earned his M.B.A. from Illinois State University. Last June he accepted a position with Shell Oil Company as environmental affairs engineer responsible for coordinating all areas of pollution control at the Woods River Refinery.

'75 LYNN JUNAS RICHARDS received an M.B.A. from Eastern Illinois University last May. Lynn is a project engineer at the Central Foundry Division of General Motors Corporation in Danville.

'75 THOMAS W. TOBIN has completed work for his J.D. degree at Pace University School of Law and left the Union Carbide Corporation. He planned to take the New York bar exam in July and on August 25 start work as an attorney with the law firm of Wilson, Elser, Edelman, and Dicker of New York City. The firm is engaged in a commercial litigation practice. It is currently composed of approximately twenty partners and forty associates. Tom will be involved primarily with products liability litigation and matters concerning engineers' and architects' errors and omissions (malpractice), all defense work, representing as a rule, major corporations.

'77 ERIK S. MASENG is District Sales Manager for Johnson Controls, Inc., in New England. As such he sells energy-saving control products, including automatic ignition systems for gas furnaces, vent dampers, and electronic setback thermostats, to manufacturers and wholesalers in his district. Erik feels that his degree in General Engineering from UIUC has given him an excellent background for "dealing with engineers, technicians, market managers, secretaries, and presidents." He spent a lot of time sailing his new sailboat on Lake Winnipauski last summer.

'77 MICHAEL D. BRUNETTO is a project engineer with St. Louis Ship.

'77 JAMES H. CHRISTENSEN is research engineer with Caterpillar Tractor Company. On July 5 he was married to Carla Ann Ekena, Bus. Ed. '77, who is a marketing support representative for IBM in Peoria. They went to Germany, Austria, and Switzerland on their honeymoon.

'77 MARK A. WHITE, who received his M.B.A. from Washington University in December, 1979, is project engineer with Arch Mineral Corporation.

'78 JOSEPH ANTHONY FUMO is sales engineer for Ingersoll-Rand Company in Milwaukee.

'78 Last spring GARY R. STEERE, a manufacturing engineer for Panduit Corporation, was accepted into the Graduate School of Business at the University of Chicago. Gary began taking night classes at the time, working toward an M.B.A.

'78 SHARON M. STEFANIK is employed as marketing representative by Commonwealth Edison Company. In September, 1979, Sharon traveled to Czechoslovakia with her 92 year old grandmother, Justina Stefanik, who "had come to the U.S. at the age of 16 and had never returned to her homeland. Four years after she arrived in America, her youngest brother, Thomas, was born. The only contact the two had all those years was through letters." All of that was changed on September 23, 1979, when Mrs. Stefanik met her 72 year old brother and was reunited after 76 years with her 77 year old and 87 year old brothers.

'78 JEFFERY L. WELLBAUM is a sales engineer under "Bart" Capron in the Houston office of Johnson Controls, Inc., and "is doing a good job."

'79 TODD GREEN was a recent visitor to the campus. Todd works for Illinois Tool Works, Inc., and is pursuing a graduate degree in Engineering Management at Northwestern University.

'79 MICHAEL R. HUBER stopped by the department in September. He is working for Deere & Company at the John Deere Product Engineering Center in Waterloo, Iowa, on the design, development, and testing of current tractor transmissions.

'79 DAVID O. REIP was commissioned a second lieutenant in the U.S. Air Force on December 21, 1979. He was then assigned to the base of his choice, Kirtland Air Force Base in Albuquerque. Dave is a laser development engineer for the Pulse Chemical Laser Division of the Air Force Weapons Laboratory. He and his wife Kitty are very pleased with his assignment in New Mexico. On the side, Dave is involved in barbershop quartet singing, and has joined the Kirtland Aero Club with the hope of earning his private pilot's license in the near future.

'79 on August 24, 1980, DAVID S. ROSENBAUM was married to Anita Beltner, H.Ec.'79. Dave is a medical student at the University of Illinois Medical Center.

'79 DAVID ROBERT SCRUBY is employed as an industrial engineer by Eli Lilly & Company.

'80 JOHN T. LINDERMAN received a fellowship from Tau Beta Pi, engineering honorary, for graduate study at Stanford University this fall.