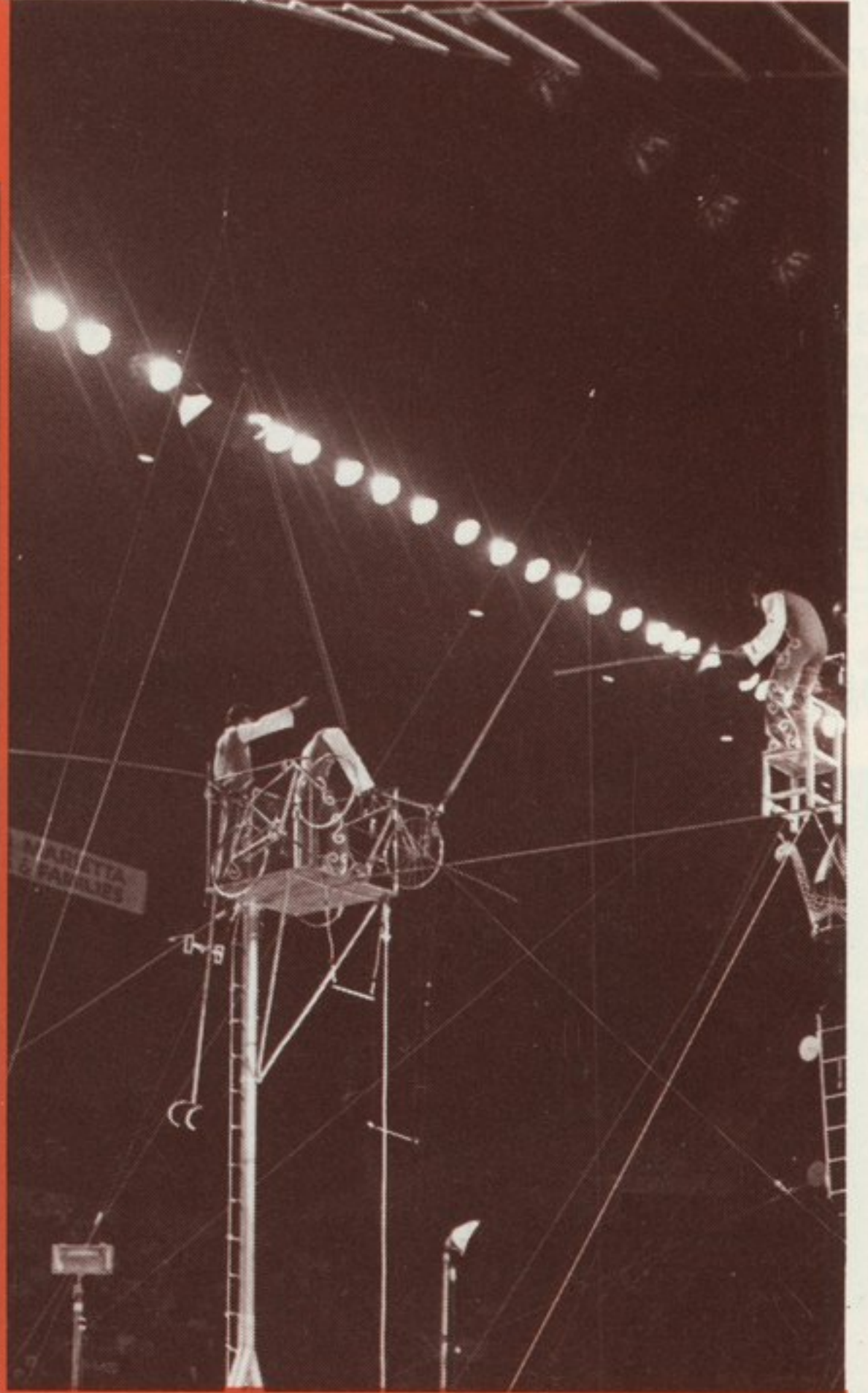
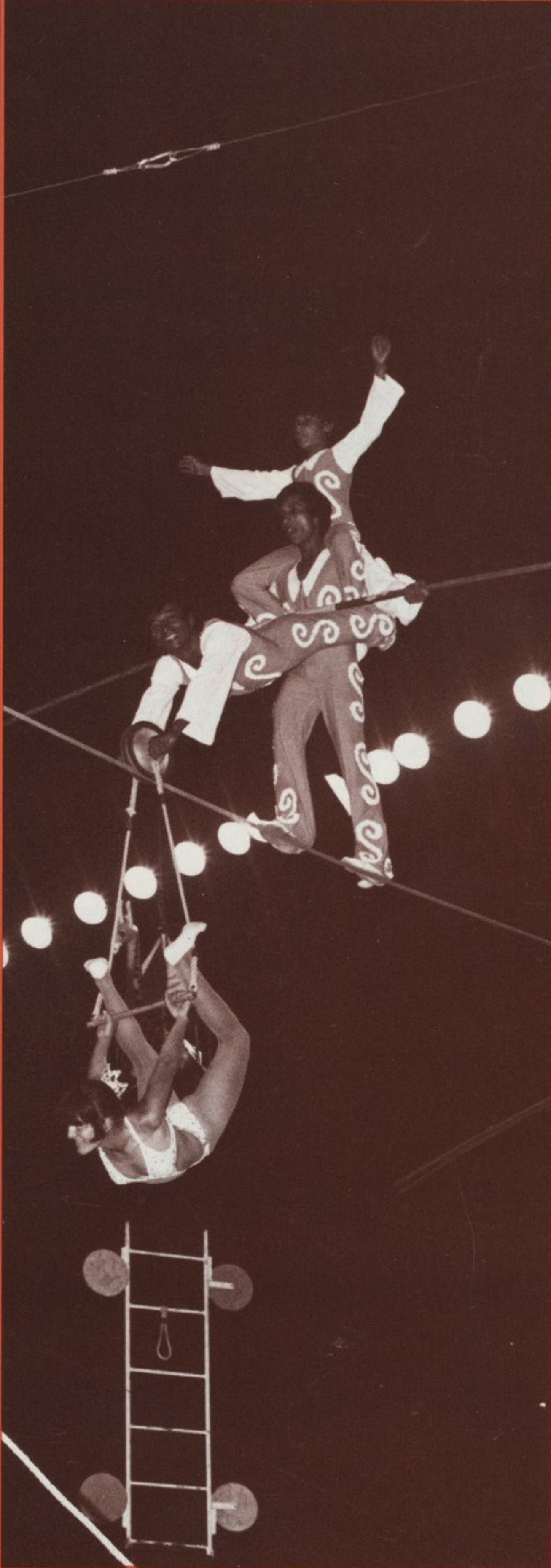


NUMBER 9/1979



Employees named author, engineer of year at Honors Night

Dr. George Morosow and Robert O. Lewis Jr. received top honors at the Martin Marietta Corporation Honors Night banquet June 22 in Washington, D.C.

Morosow was named Corporate author of the year "for original work reflected in the paper, *Force Apportioning for Modal Vibration Testing Using Incomplete Excitation*, published in **The Shock and Vibration Bulletin**, No. 48, Part 1, September 1978."

Lewis was selected engineer of the year in the Corporation "for outstanding technical leadership resulting in the elimination of electromagnetic interference on the SCATHA satellite."

Five other division employees were honored for their contributions and received

the coveted Jefferson Cup for outstanding contributions. Honored were:

Donald G. Gray "for outstanding contributions to Denver Division's successful efforts on the MX assembly, test, and systems support proposal."

Donald E. Hobbs "for sustained excellence in the management of the SCATHA satellite program."

Donald E. Kendall "for significant contributions to the successful design, fabrication, testing, and flight performance of systems employing sophisticated new technology."

John E. Kimpton (Canaveral operations) "for sustained outstanding performance which has contributed significantly to the

successful installation and testing of the Space Shuttle checkout, control, a monitoring subsystem at the NASA Kennedy Space Center."

James J. McDonald "for successful contract negotiations which resulted in equitable performance criteria, customer satisfaction, and profit incentives."

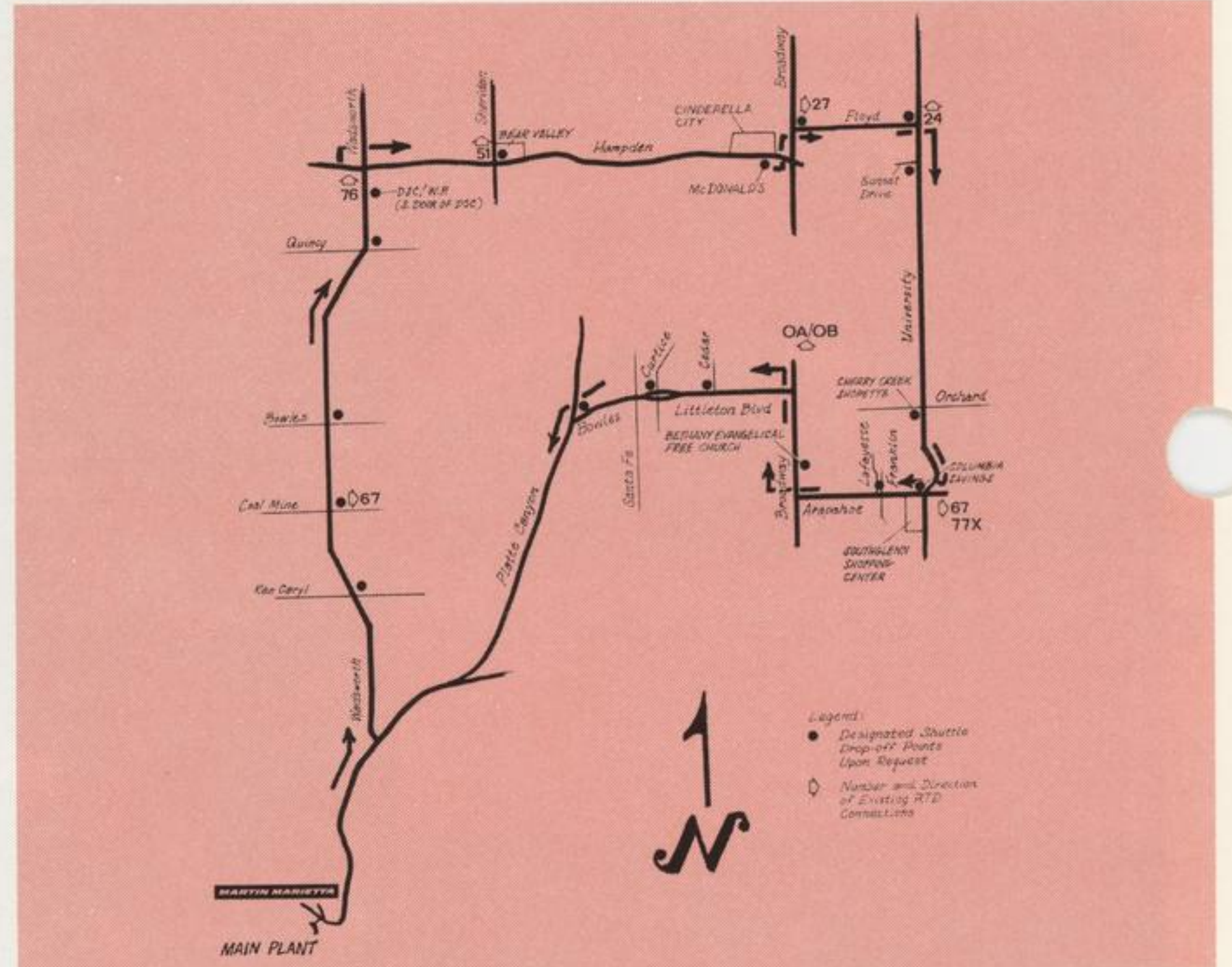
The Jefferson Cup derives its name from Thomas Jefferson, architect, author, inventor, engineer, and statesman. It is the symbol of Martin Marietta's appreciation for outstanding individual contribution to the corporation.

It is a replica of one of the eight cups in a set crafted for Jefferson by Richmond silversmith John Letelier and used in Jefferson's Monticello home.

Share-the-ride coordinator named; computer to match drivers, riders



Beverly Thompson is coordinating share-the-ride information.



Map shows route of shuttle for stranded carpools.

Beverly Thompson has been named share-the-ride coordinator for the Denver Division to assist employees in forming carpools. To provide employees a more effective way to arrange carpools, the division will process share-the-ride information through the Denver Regional Council of Governments (DRCOG) computer carpool matching system.

Details of the improved share-the-ride program and applications for participation have been mailed to all employees at their homes.

"Benefits of share-the-ride are many," C.B. Hurtt, vice president and general manager of the division, said in his letter accompanying the information. "Among them are improved air quality, gasoline conservation, and reduction of traffic congestion. Driving alone is a difficult habit to break. But, it must be done if we are to solve environmental and transportation prob-

lems facing our nation today and in the future."

As a result of employee response to a *Martin Marietta News* survey, the improved ridesharing program will include preferential parking for carpool vehicles and a rescue system to aid stranded carpools. Parking will be set aside near each major building. A shuttle bus will leave the main plant at 5:30 pm each day and follow a route that connects with RTD bus stops as well as providing convenient pick-up points for private transportation. (See map.)

Applications for participation in the share-the-ride program should be returned to Mrs. Thompson by July 16 at mail no. 6320. The applications will be processed by DRCOG and will match drivers and riders according to work location, work hours, and home addresses.

In about ten days, each applicant will re-

ceive a list of other employees interested in ridesharing and with whom it would be convenient to form a carpool.

New and established carpools are to be registered with the share-the-ride office, engineering building 125B. Preferential parking decals will be issued when the carpool is registered. In addition, the share-the-ride office will provide a complimentary lunch ticket for each member of a carpool. The tickets are valid through August 31, 1979.

If you have questions concerning the share-the-ride program, call Mrs. Thompson, extension 6605.

In closing his letter to employees, Hurtt said, "I want to express my appreciation to the many of you who are currently involved in ridesharing and I am asking those of you not yet involved to reassess your driving needs and honestly explore the possibility of ridesharing."



Edmund F. Poffel gets award from C.B. Hurtt.

40-year service awards given 11; one for 45

Eleven employees received 40-year service awards and one was honored for 45 years of service at a recognition dinner June 19 in the Denver Division executive dining room.

Receiving special recognition for his 45 years with Martin Marietta was Edmund F. Poffel. C.B. Hurtt, vice president and general manager of the division, presented the award.

Those receiving 40-year service awards were Robert A. Austin, Anthony J. Fria, Leon S. Dabkowski, Grafton Floyd, William Croucher, Raymond H. Rock, Elwood Dohner, Frank A. Muller, Ferd Lauman, Samuel J. Harper, and Hilbert Bridges.

All those honored began their Martin Marietta careers in Baltimore.

A.E. Hawkins and W.O. Lowrie, division vice presidents, presented the service awards.

Division sponsors two students at science institute

Two area high school students are attending the 1979 Frontiers of Science Institute this summer at the University of Northern Colorado under scholarships from the Denver Division.

Selected for the program, which began the last week of June, were Valerie Johnson of Heritage High School, Littleton, and Glenn Mitchell of Golden Senior High School.

The Frontiers of Science Institute is designed for high school juniors who have interest and aptitude in science. The activities are selected to give students a better understanding of the nature of scientific investigation, some of the problems and limitations, and to encourage them to continue with advanced study and a career in science.

Wanted! New employees: \$500 reward

The Denver Division's successful employee referral reward program has been improved with an increase in the reward to \$500 (less tax).

"We have employees who we believe know former associates or acquaintances qualified to fill some of the division's increasing manpower needs," R.E. Burnett, director of professional and industrial relations, said, "and we are soliciting the help of these employees at this time."

All division employees, except vice presidents, directors, and professional and industrial relations personnel, are eligible for the referral rewards. Supervisory personnel are not eligible when recommending a candidate for a job directly under their supervision.

Positions for which candidates may be recommended are in salary grade 43 and above. Because of the division's extensive recruiting on college campuses, new college graduates are excluded as candidates under the referral reward program.

Burnett suggested employees who believe they have qualified candidates check first the current skill requirements list posted on the plant bulletin boards. If the employee believes his candidate can fill an opening, he obtains an application form from either his department administrator or the mail room.

Before sending the application to a job candidate, the employee puts his name, department number, badge number, telephone extension, and mail number on page four of the application form under the question "What prompted your application to Martin Marietta?"

If the form is not stamped "Employee Referral" on the top of the first page, the employee should print the two words in large letters at the top of the page. This will help insure prompt and proper handling of the form by personnel staffing.

The application is then given to the candidate with instructions to send it back to the employee when completed. The employee forwards the application to personnel staffing, mail no. D6310.

A nominating employee will receive the \$500 reward if the job candidate is hired and begins work within 60 days. Exceptions may be made where the hiring process takes longer.

More than 150 division employees have received rewards since the beginning of the program in early 1978.

"Employees should use care in sending applications to friends and acquaintances," Burnett cautioned. "Suggesting a friend submit an application when there is no requirement for his or her skill could lead to disappointment."



R.E. Burnett, left, director of professional and industrial relations, and John Turcheck, right, and instructor from the integrated logistics section, discuss "Resusci Anne" used in teaching cardiopulmonary resuscitation (CPR). The technique is a combination of artificial respiration and artificial circulation started immediately when cardiac arrest occurs. A CPR course taught by division paramedics will be offered soon, with dates and times to be announced.

Employee elected vice president of CSM board of trustees

Fred R. Schwartzberg was elected vice president of the Colorado School of Mines board of trustees at the June meeting of the board. He will serve in the office for two years.

Gov. Richard Lamm appointed Schwartzberg to a six-year term on the board in 1977.

Schwartzberg also represents the School of Mines on the advisory committee to the Colorado Commission for Higher Education.

At the Denver Division, he is manager of large space systems in technical operations.

On the cover

Young and old alike enjoyed the highwire acts at the special Martin Marietta performance of the El Jebel Shrine Circus. Employees and their families were guests of the company at the circus. At times, cotton candy was more interesting to some.

Program planned to discuss division products, functions

A 22-session program in which department and program executives will discuss products, responsibilities, functions, organization, and personnel requirements of their organizations will begin July 23. Purpose of the program is to allow participating employees to gain an understanding of the interrelationships of the various departments and programs and at the same time show the diversity of skill required to achieve the division's objectives.

The sessions will be held in the sixth floor SSB presentation room. Because the room has a capacity of 100 persons, registration for the program is limited to the first 100 employees who apply, due to seating limits.

To register, an employee should submit his or her name, department number, telephone extension, and mail number to training, education, and employee development, mail number S6360. No registrations will be taken by telephone.

Each session will be from 4 to 5 pm.

Mon., July 23	Systems	J.M. McCorkle
Wed., July 24	Mechanics	C.A. Hall
Mon., July 30	Software	J.A. Trawick
Wed., Aug. 1	Software	J.A. Trawick
Mon., Aug. 6	Product Development	H.C. Wroton
Wed., Aug. 8	Test	F.X. Carey
Mon., Aug. 13	Electronics	R.H. Clausen
Wed., Aug. 15	Manufacturing	C.G. Stucker
Mon., Aug. 20	Quality and Safety	G.W. McGee
Wed., Aug. 22	Program Development	L.G. Taigman
Mon., Aug. 27	Program Development	L.G. Taigman
Wed., Aug. 29	Spacelaunch Systems	C.E. Carnahan
Wed., Sept. 5	MX Systems	J.H. McCown
Mon., Sept. 10	C&IS	E.C. Wood
Wed., Sept. 12	P&IR	R.E. Burnett
Mon., Sept. 17	Business Operations	A.E. Hawkins
Wed., Sept. 19	Facilities and Services	J.P. Marcus
Mon., Sept. 24	Facilities and Services	J.P. Marcus
Wed., Sept. 26	Material	J.R. Grace
Mon., Oct. 8	Planning	J.V. Merritt
Wed., Oct. 10	Finance	R.G. Adamson
Mon., Oct. 15	Contracts	T.R. Callan



Noel N. Pass and Gloria F. Patterson check out roll drawing torquing tool.

Division inventors receive cash awards

Fourteen division inventors have been named by the product development review board to receive cash awards for their inventions. They are:

Raymond L. Opper, electronics; and Thomas R. Heaton, product development: improved heliostat gimbal concept for central receiver application.

Morton L. Clevert and Donald S. Crouch, engineering mechanics: linear induction drill drive system (LIDDS).

Steven C. Espy, Robert J. LaBaugh, and Philip C. Carney, software; and Thomas H. Lohaus, electronics: special processor C32.

Gloria F. Patterson, plant operations; and Noel N. Pass, manufacturing: roll drawing torquing tool.

Melvin W. Frohardt, product development: single motor, two axis drive with brakes.

Frohardt and Daryl D. Billenberg, engineering mechanics: two axis drive mechanism combined in single housing.

William J. Owen and Robert A. Booker, electronics: optimum second order digital filter algorithm.

For information on submitting invention disclosures, call the patent department, extension 662 (West Point).

RECREATION

Golf Tournament — The Martin Marietta Open will be held at the Lake Arbor golf course August 18. Details on the tournament will be available at the recreation office.

Volleyball Winners — The Happy Hummers won the championship of the volleyball season by defeating The Champs 2 games to 1 in a play-off between the Wednesday night and Thursday night leagues. Members of the winning team are David Wolff, Sharon Palmer, Chris Duncan, Mark Matlin, Bob Garcia, Bill Betts, Jay Biddle, Bill Orberley, and Alice Lazalde. Twenty-six teams participated in the leagues.

Amateur Radio — The Waterton Amateur Radio Society held its annual field day the weekend of June 23. Members put three stations on the air at a remote site near Sedalia using only power supplied by a portable generator. The field day

was a part of the American Radio Relay League's emergency communications training program. Points are accumulated for every successful two-way contact. After 24 hours of continuous operation, the club's operators had amassed 2,300 points with 1,000 two-way contacts. The club meets on the first Tuesday of each month at the "shack" in the recreation area. Membership is open to all employees interested in Amateur Radio whether licensed or not. Those interested should contact Dave Roberts, extension 5689, or the club's president, Jack Crabtree, extension 4672.

Discount Tickets — The recreation office has discount tickets for professional sporting events, amusement parks, theaters, and restaurants. Information may be obtained by calling extension 6750 or stopping at the office, engineering building 125.

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Denver Division

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July 1979

Personal growth workshop group continues meeting

A two-day personal growth management workshop held in February has extended into a continuing association for 19 division employees. They have met weekly to talk, support each other, counsel on problems, and aid in the meeting of individual objectives.

"The group is unique," Roy S. Yamahiro, manager of training, education, and employee development, said. "Workshop objectives are aimed more at the individual than at group activity. However, the impact of the workshop on the individuals in this case was such that they believe they can best achieve their individual objectives by continuing to meet as a group."

"As a group, they decided that a Dale Carnegie course would benefit each individual," Yamahiro said. "Eighteen of the 19 original members are participating in the course."

Objectives of the two-day workshop are to provide participants an understanding of the individual's relationship to the company with respect to career planning and growth; to provide each participant a plan of growth; and to equip the individual with skills to play a greater role in career planning and achievement of career objectives.

Personal management workshops have been held at the Denver Division since June 1977 with more than 400 participants. There are more than 600 employees on the waiting list for the course and plans are being made to increase the frequency of the workshops from two a month to four a month. Each workshop is open to about 20 employees.

The workshop is open to all nonexempt and exempt salaried employees, providing their schedules permit them to be away from the job for two full days. The workshops are held offsite. An attempt is made to include both a wide range of job levels and a wide range of disciplines in each workshop.

Employees interested in participating in personal growth management workshops should contact the training, education, and employee development office, extension 5226.

Don R. Lawless, supervisor of the test operations group in the division's space simulation laboratory, was recently awarded the U.S. Army Meritorious Service Medal. Lawless, who was a colonel in the Corps of Engineers, was presented the award at his retirement after 34 years of active and reserve duty. When he retired, Lawless was executive officer of the directorate for quality assurance, the U.S. Army Material Development and Readiness Command. He has held a variety of assignments in the reserve and during World War II had been a unit commander in the ninth infantry division in the European Theater of Operations and later engineering installations officer in the Berlin Command.



Jeffrey L. Hayden at console of equipment used in his new technology disclosure.

10 employees receive new technology awards

Ten employees have been named by the Denver Division new technology evaluation committee to receive cash awards for their disclosures as a result of work on NASA contracts. Those earning awards:

Elvis D. Simon, engineering mechanics: model for computing liquid evaporation from fine-mesh screen in propellant tanks.

Philip C. Carney and Robert J. LaBaugh, software; and Thomas H. Lohaus, electronics: special processor for improved spacecraft computer performance.

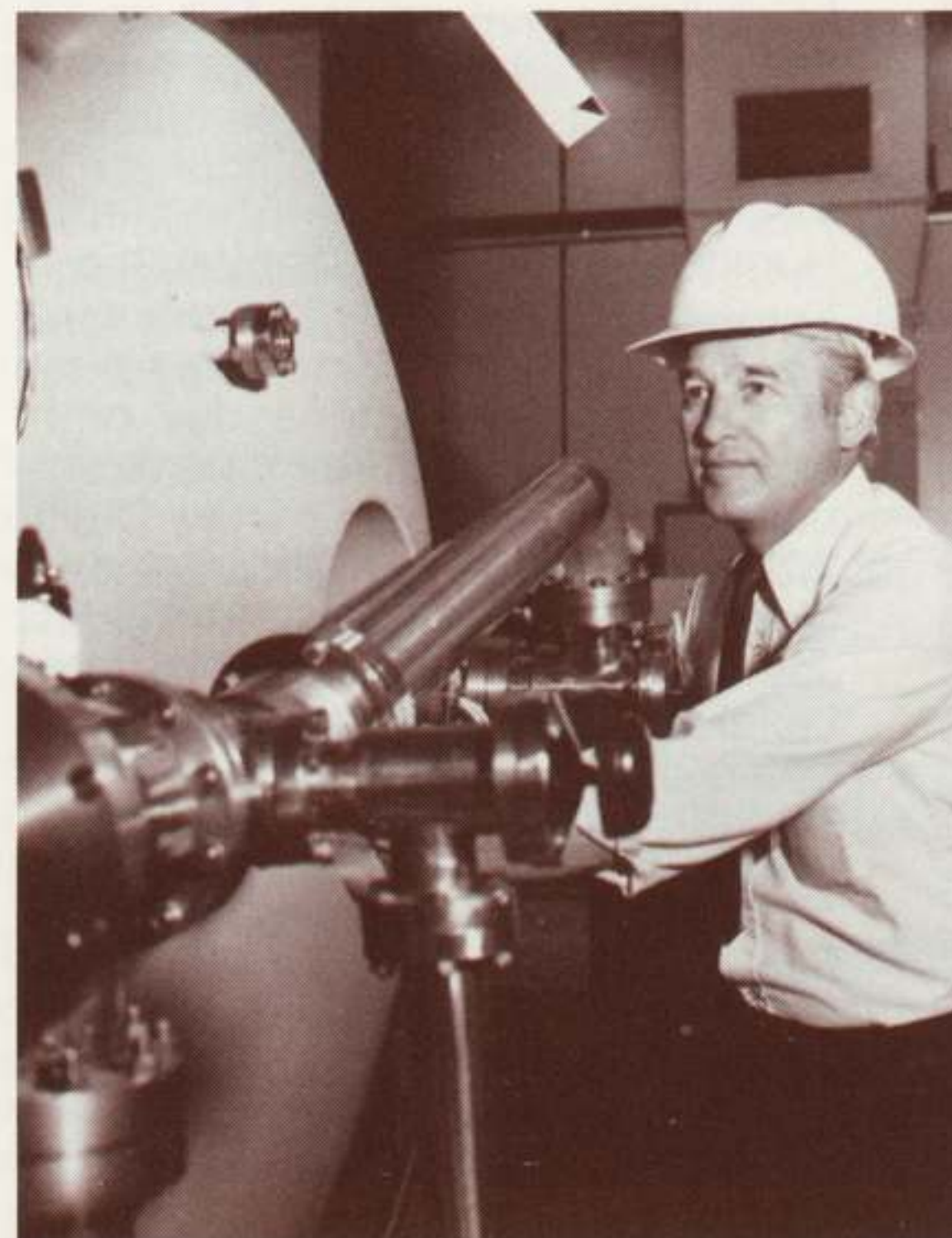
Roger D. Michaud, systems engineering, Houston: improved female urinal (IFEMU).

H. Michael Thomas and John C. Tietz, electronics: solid state infrared self-scanning sensor array.

Jeffrey L. Hayden, electronics: mass spectrometer processing circuit for continuous logarithmic readout over eight decades.

Roger T. Schappell and Tietz, electronics: feature identification and location experiment (FILE).

Information on submitting new technology disclosures under NASA contracts may be obtained by calling extension 3208 or 5423.



Quality Circles reduce costs, increase quality

The Denver Division Quality Circle program, a team approach to problem solving, is helping the division improve its competitive position by increasing quality and reducing costs.

Hal L. Gariety, who coordinates the Quality Circle program, says the more than 20 teams functioning in the division have saved nearly \$110,000.

"The savings are real, not just paper savings," Gariety said. "The savings have reduced budgets."

The Quality Circle technique originated in Japan. It recognizes that people working in a particular area are best qualified to identify problems in the area and to develop solutions to those problems.

More than 170 employees are voluntarily participating in the Quality Circle program at the Denver Division.

"We believe the Quality Circle approach can be used by all types of organizations," Gariety said. "Currently, we have teams operating in electronic manufacturing, materiel operations, the metrology labs, checkout, control, and monitoring subsystems; and detail manufacturing; and in final assembly and weld."

A recent example of the effectiveness of the Quality Circle program is the work done by metrology group A. In less than eight hours of meetings, the team saved more than \$32,000 by instituting a central control program for parts and supplies using a desk top computer.

As a result, the inventory of parts and supplies for the calibration and repair of equipment has been reduced, parts have been standardized, and parts can be purchased as off-the-shelf items.

Those participating in the group were Clifford Christopher, senior quality engineer; Harold Jones, senior quality engineer; Nancy Muterspaugh, associate quality engineer; Larry Scales, quality engineer; James Smith, instrument and equipment technician; and James Yablonski, calibration and development technician.

"The first step a Quality Circle takes is to identify all the problems that exist in its work area," Gariety said. "The prime objective of the Circle is to find solutions to the problems. A Circle exists only as long as problems exist."

Managers who want further information on Quality Circles and their effectiveness may call Gariety at extension 4266. An 18-minute presentation describes the total program.

NASA implements energy saving plan

A forerunner in the nation's efforts to lower energy consumption, NASA is implementing an extensive conservation plan at the three-and-a-half million square foot Michoud Assembly Facility where the Denver Division's Michoud operations is assembling the Space Shuttle external tank.

As NASA's largest contractor at Michoud, the division plays a key role in keeping costs down. In 1978 alone, NASA spent \$4,175,000 on electricity and natural gas at Michoud.

NASA's long-range plans to conserve energy began in 1973 at Michoud with a goal to reduce energy use by 50 percent by 1985.

"Our records show that from 1973 to 1978 we have achieved 41 percent of the projected goal," said Jack Demarest, NASA facility engineer and chairman of the Michoud energy conservation committee.

How was this accomplished? From individual tenant contributions such as turning off lights to larger projects such as replacing mercury vapor lights with sodium vapor.

The new lights have been installed in "approximately one-third of the facility so far," Demarest said. "And we're getting twice the light at half the energy use."

Eventually, the entire facility will be lighted by the more powerful and less expensive sodium vapor lights.

Other energy-saving steps at the mammoth facility include lowering hot water in restrooms by 25 degrees, maintaining an environmentally controlled atmosphere, and implementing NASA's "late-on, early-off" plan.

Although the late-on, early-off plan may cause a little discomfort, it does conserve energy. "We now have air blowers and lights turned on as employees arrive, rather than before they come to work," Demarest said. "We turn off the blowers as they leave for the day."

"There have been a few complaints about the building getting a little warmer than usual with this plan," Demarest added, "but everyone agrees it's worthwhile."

For several years now Demarest and the energy conservation committee have held monthly meetings with NASA's Michoud tenants. "We encourage each company to urge its employees to pitch in and help maintain lower energy consumption."

When new facilities are added, energy efficient designs are always included in bids.



Susan B. Lemeschewsky, right, discusses test results on corrosion samples with Lyle Johnson, left, staff engineer in materials engineering.



One of the three main parachutes to be used for recovery of the Space Shuttle solid rocket booster is shown in this NASA photo as it was being packed at Cape Canaveral. The parachute measures 230 feet from the top to the ends of the suspension lines. It weighs 1,700 pounds.

Michoud engineer chosen as intern at Aerospace headquarters

Susan B. Lemeschewsky has been chosen as the 1979-80 Aerospace headquarters technical operations intern. She is a senior engineer in materials engineering at Michoud operations.

During the one-year internship, she will serve on the staff of Norman R. Augustine, vice president for technical operations for Martin Marietta Aerospace. Mrs. Lemeschewsky will have a variety of assignments to acquaint her with technical and management functions throughout the Aerospace company.

A 1971 graduate of Vanderbilt University earning a bachelor in engineering degree with emphasis in materials engineering, Mrs. Lemeschewsky has been at Michoud operations since 1975. She is responsible for materials engineering on the propulsion subsystem for the external tank, which includes assuring technical accuracy of suppliers' materials and processes activities.

She has been teaching a course in materials engineering at Delgado College. She is a member of the American Society of Metals and the American Society for Non-destructive Testing.

Mrs. Lemeschewsky will begin the internship in September.