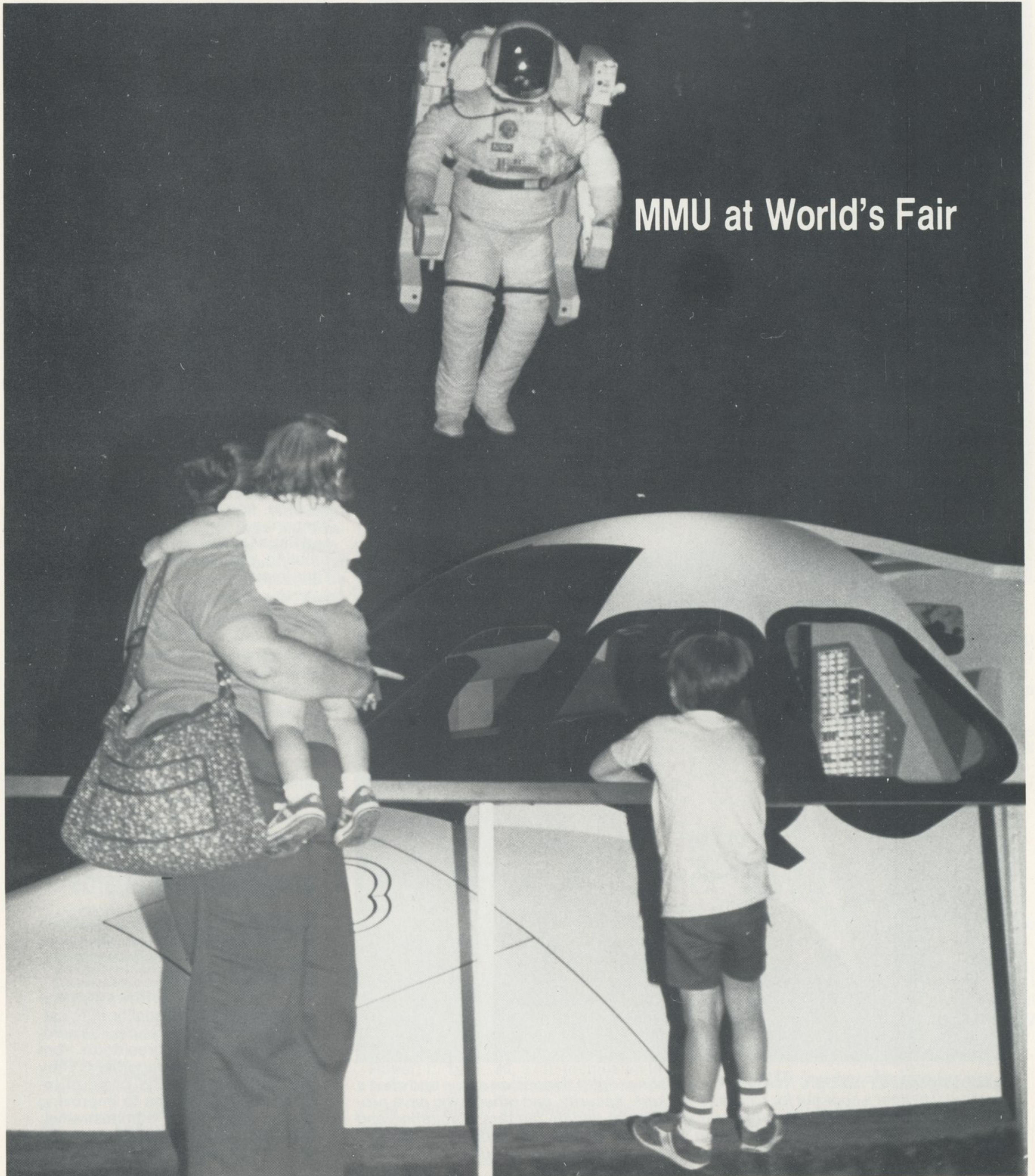


MARTIN MARIETTA

news

DENVER AEROSPACE

Number 14/1984



MMU at World's Fair

Denver Aerospace employees honored by corporation

Fourteen Denver Aerospace employees have earned coveted Jefferson Cups, the Corporation's highest award, for superior achievement during the past year, with two of them singled out for special honors.

Russell A. Chihoski was named author of the year at a special honors night awards banquet in Washington, D.C., while **William C. Brown** was named inventor of the year.

The banquet was held June 29, at the Capital Hilton, with Thomas G. Pownall, Corporation chairman and chief executive officer, presenting the awards.

Chihoski was honored for his paper entitled "Conductivity-Hardness Reveal Heat Treat History of Aluminum Alloys," published in *Metal Progress*, Vol. 123, No. 6, May 1983.

Chihoski, an engineer, works on the Peacekeeper program. The award was his second for author of the year.

Brown, who currently manages the NAVCOMM program, won the inventor award for creative contributions to the invention of significantly improved communications equipment using lasers.

Martin Marietta awards silver replicas of the Jefferson Cup to employees throughout its operations who have made outstanding contributions to the Corporation. The cup derives its name from Thomas Jefferson—architect, author, in-

ventor, engineer, and statesman—and is a reproduction of a cup Jefferson used in Monticello, his Virginia home.

Also honored at the 23rd annual honors night were the following Denver Aerospace employees:

John R. Adamoli—For his leadership as system test director of the Peacekeeper (MX) program, resulting in three test launches accomplishing their mission, within contract cost and schedule requirements during 1983.

Walter William Bollendonk—For outstanding program management of the design, production, and qualification of the Manned Maneuvering Unit and for outstanding program management of the system integration and hardware for the Solar Maximum satellite recovery mission.

Stephen L. Copps—For his significant technical contributions in upgrading the Advanced Automation System and to Martin Marietta Aerospace being named systems engineering and integration contractor to the Federal Aviation Administration for modernization of the nation's air traffic control, navigation, and communication system.

A. Darrell Devers—For outstanding leadership that has contributed to the success of the Peacekeeper (MX) test program.

Richard J. Farrell—For contributions to successful acquisition in 1983 of the \$35.5-

million hardware development contract for the Transfer Orbit Stage.

Keith J. Frederick—For superior marketing effort that contributed significantly to Martin Marietta's winning the \$684-million systems engineering and integration contract from the Federal Aviation Administration for modernization of the nation's air traffic control, navigation, and communication system.

Carroll R. Gray (Michoud)—For outstanding technical contributions to development of a new External Tank spray-on foam insulation material for the liquid hydrogen tank aft dome and implementation of additional ablator reduction programs which resulted in significant weight and cost savings.

Robert F. Hieter (Michoud)—For outstanding leadership in management of the Space Shuttle External Tank manufacturing program, contributing significantly to cost reductions per tank, ahead-of-schedule delivery, and mission success.

Mohan S. Misra—For outstanding performance in the development of new materials technology such as innovative ion implantation, microalloying, and advanced metal matrix composites, which contributed to the acquisition of numerous development contracts during 1983.

Felix J. Scheffler—For sustained leadership and performance in directing Martin Marietta Aerospace operations at both Vandenberg Air Force Base, California, and Cape Canaveral, Florida, thereby contributing significantly to 129 successful Titan launches.

Rex William Sjostrom—For outstanding leadership as special programs technical director and significant contributions to doubling group sales, successful proposal and negotiation efforts, and outstanding operational performance.

Charles Russell Spath—For outstanding professional contributions in the areas of software systems applications, which have enabled the Aerospace company to acquire significant new business.

Corporation adds category to Jefferson Cup awards

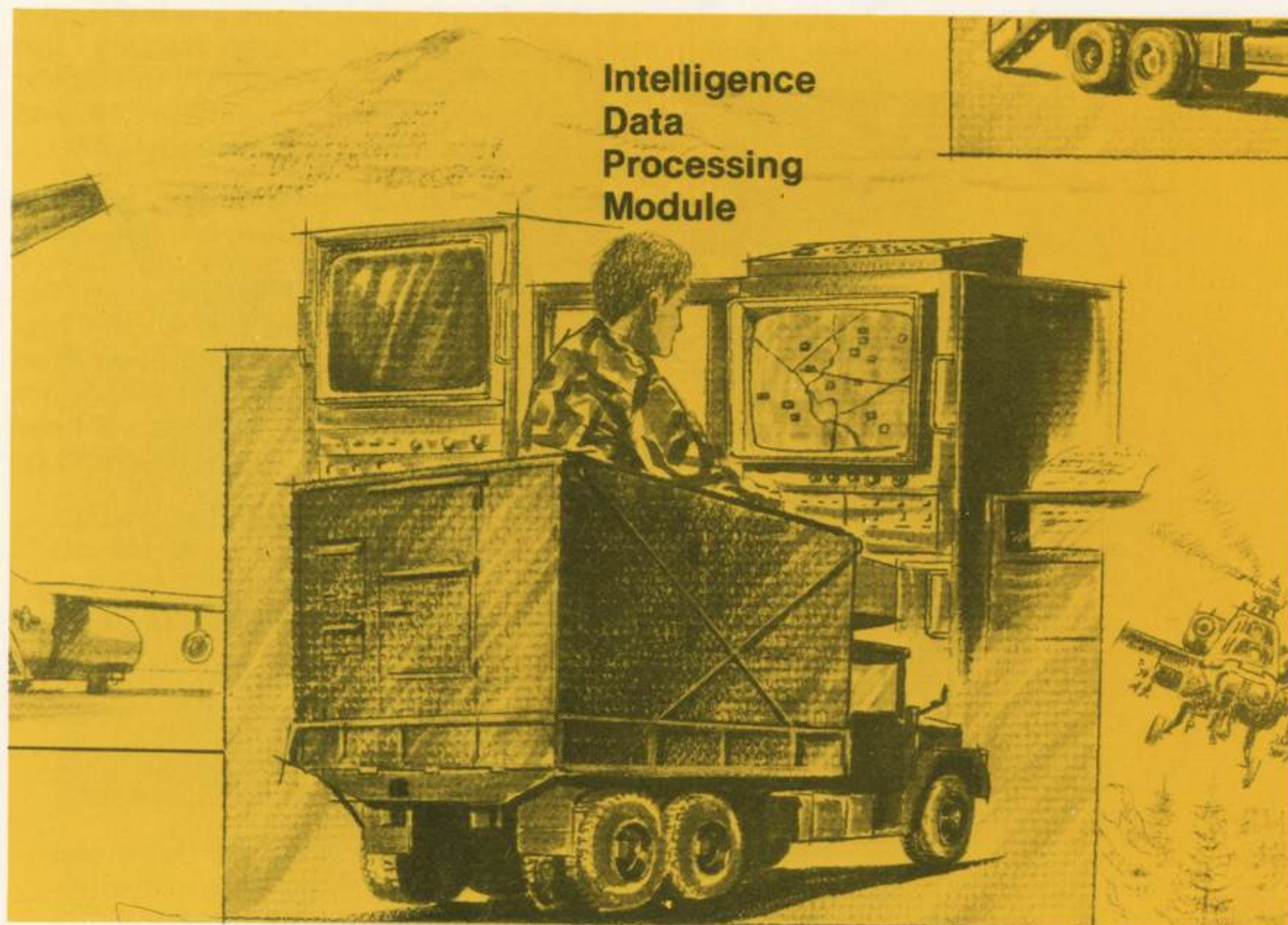
Beginning in 1985, Martin Marietta will add a new category to its honors night awards for each company—manager of the year.

Chairman Thomas G. Pownall, in announcing the additional honors category, said candidates may be nominated by company presidents from any segment of management. They will be judged on the basis of individual contributions to improving Martin Marietta's administrative, financial, manufacturing, production, or technical practices.



Denver Aerospace President Norman R. Augustine (right) donned an apron and chef's hat recently to host a cookout for cafeteria workers, security, and others who have provided support in a continuing series of management update dinners. Augustine and members of his executive staff, including Robert H. Snodgrass (middle), director of facilities and services, and Steven E. Story (left), vice president of business management, grilled steaks and served them to an estimated 130 guests.

Company bids intelligence system



Expertise gained from the highly successful Operational Application of Special Intelligence Systems (OASIS) program is being used in a bid for a new military intelligence system that could bring the company a \$100 million contract in November.

Denver Aerospace this week (July 19) submitted a proposal to participate in the All Source Analysis System/Enemy Situation Correlation Element (ASAS/ENSCE) program.

ASAS/ENSCE, a joint project managed for the U.S. Army and Air Force by Jet Propulsion Laboratory of Pasadena, CA, calls for development of a mobile system that would enable the Army and Air Force to rapidly process intelligence data from numerous sources and sensors.

"The system will provide operational commanders in the battlefield with useful, timely, and accurate intelligence information," said Al Schallenmuller, program manager.

The system would consist of sophisticated computers and related software housed on military trucks. It would be used to perform tactical fusion, which involves taking several pieces of information in a real-time environment and, using historical information programmed into a computer, deriving new information that is more than the sum of the original pieces of information.

The company's primary function would be system integration, although it also would develop an intelligence data processing module, a remote work station module, and a support module for the system.

Harry Kottcamp said the technology developed on the OASIS program, which involved modernizing the command and control capabilities of the Air Force's Tactical Fusion Center, is expected to be used on ASAS/ENSCE. Kottcamp, who managed the OASIS program, led the ASAS/ENSCE proposal effort.

"Essentially what we have done is taken OASIS and put it on wheels," Kottcamp said.

Eventually there will be about 40 ASAS/ENSCE systems built, so there are expected to be "significant follow-ons" to the initial, 50-month contract.

Up to 130 people have worked on the ASAS/ENSCE proposal, which had a 45-day response period. Schallenmuller called the team working on the proposal "super."

"It really shows how a team of Martin Marietta personnel can respond to government needs quickly and effectively," Kottcamp added.

New appraisal process debuts

A new, streamlined performance appraisal process, designed to help supervisors and employees focus better on job performance, is being implemented at Denver Aerospace.

The new Performance Appraisal Review (PAR) form will be accompanied, for the first time, by a guide explaining to exempt salaried employees how to use the form.

Both the PAR form and the guide are the result of an effort begun last spring to establish a common PAR process for all three Martin Marietta aerospace companies.

The PAR form has been shortened from six pages to four, and sections that must be completed to open a PAR now are shaded blue.

Barbara Dash of the Human Resources Department said features of the new form include addition of a section to appraise supervisory competencies for those with supervisory responsibilities and inclusion of performance factors in an abbreviated general competencies section.

Among other additions to the form are a space for job responsibilities (the overall duties of the position) and three questions to which employees may respond regarding their current position.

Certain sections of the PAR form have been simplified or replaced with new sections. For example, the entire numerical value rating section has been replaced with a simple overall performance summary in which performance is rated as outstanding, excellent, expected, marginal, or unsatisfactory.

The development plan has been modified to identify strengths and areas requiring further development, which then should correspond to the development actions section.

"All of the changes in the PAR form are aimed at making it easier for both employees and their supervisors to use the form," said Dash. "Since there will be less emphasis on procedure, employees and supervisors will be able to concentrate on performance."

Dash said PAR forms and guides are available to personnel managers for distribution. Use of the new forms should be phased in as new PARs are opened.

The organization and management development department will make a 45-minute briefing available for management staff meetings, beginning July 25, to introduce the changes.

In addition, a redesigned 4- to 6-hour training module on performance appraisal and supervisors' roles and responsibilities will be incorporated into Performance Management and Effective Supervisory Practices courses. It is also available to departments upon request.

On the cover

A mockup of an astronaut with the manned maneuvering unit flies above a model of the space shuttle orbiter's cockpit at the World's Fair Space Pavilion in New Orleans. Other featured exhibits are the orbiter Enterprise as well as Spacelab and manned space station displays. Martin Marietta Aerospace contributed \$100,000 to the World's Fair.



Now is the time to clean your chimney. Creosote build-up causes chimney fires.

Museum gets gift on Mars

A trip to view the Smithsonian's National Air and Space Museum's latest acquisition would involve almost half a billion miles, because the Viking 1 Mars lander is still resting quietly on the Red Planet's surface.

That makes it, literally, the museum's farthest out and least visited artifact.

NASA made the Washington, D.C.-based museum titular owner last month of the 1976 exploration device, designed and built by Martin Marietta, after a request from curator Walter Boyne.

The lander has been renamed the Thomas A. Mutch Memorial Station in honor of the former Viking lander imaging team leader and NASA associate administrator who died climbing the Himalayas in 1980. A plaque, designating the station is on loan to the Smithsonian, will be placed on the Viking 1 lander when U.S. space travelers land on the Red Planet.

In ceremonies formalizing the transfer, Boyne said, "because of its extraordinary lifetime and record of exploration, the Viking rightfully deserves a place in the national collections, even though that place may now be on Mars."

James M. Beggs, NASA administrator, noted during the ceremonies, "Viking did not discover life on Mars, but the mission's flawless performance from two different spacecraft located on a planet tens of hundreds of miles away over a six-year period is a profound and stunning technical and scientific achievement. It stands as an enormous tribute to the Viking gov-



Boyne (right) accepts Viking Lander test proof capsule (in background) from Beggs.

ernment-industry-university team that involved some 10,000 people, people at Martin Marietta...all helped to alter profoundly our concept of Mars and enhanced our understanding of the fundamental constants of matter and space."

Viking landers 1 and 2 were built at Martin Marietta's space center near Denver, and set down on Mars the summer of 1976,

after traveling some 460 million miles from Earth. On board were 13 instruments which were guaranteed to function for nine months. Actually, they worked for six years, examining chemical characteristics of Martian soil, composition of its atmosphere and the seismic activity. Viking 2 was turned off during 1980 and Viking 1 during May 1983.

Vote signup time running out

Area residents can register to vote for the September primary and November general elections at numerous new branch locations which have been set up in the greater Denver area to supplement the various county clerk and recorder offices.

The last day to register for the September 11 primary election is August 10.

In addition to voter registration locations listed below, each county maintains several permanent registration locations (see *Martin Marietta News* No. 12, 1984) and most will have a number of mobile registration sites. Further information is available from the voter's county of residence: Adams, 659-2120; Arapahoe, 795-4511, Boulder, 441-3516; Clear Creek, 534-5777; Denver, 575-2351; Douglas, 688-5778, El Paso, 471-5521; Gilpin, 572-0567; and Jefferson, 277-8806.

ADAMS COUNTY—(Mon to Fri, 12 to 8 p.m.; Sat, 10 a.m. to 6 p.m.) *King Soopers* at: 9395 Montview Blvd, Aurora; 15109 E Colfax Ave, Aurora; 5105 W 120th Ave, Broomfield; 6040 E 64th Ave, Commerce City; 1575 W 84th Ave, Federal Heights; 750 E 104th Ave, Thornton 10300 Federal Blvd, Thornton; 7301 Federal Blvd, Westminster; *Safeway*: 650 Malley Dr., Northglenn; 10777 E Colfax Ave, Aurora; 1605 Bridge St, Aurora; E 120th Ave and Colorado Blvd, Thornton; 3295 W 72nd

Ave, Westminster; 8430 Federal Blvd, Westminster;

ARAPAHOE COUNTY—(Mon to Fri, 4 to 8 p.m., Sat, 10 a.m. to 4 p.m.) *Safeway* at: 125 E Hampden Ave, Littleton/Englewood; 7375 E Arapahoe Rd, Littleton/Englewood; 199 W Ridge Rd, Littleton/Englewood; 1730 S Buckley Rd, Aurora; 16921 E Quincy Ave, Aurora; 16921 E Quincy Ave, Aurora; *King Soopers*: 5050 S Federal Blvd, Littleton/Englewood; 8200 S Holly St, Littleton/Englewood; 4910 S Yosemite St, Littleton/Englewood; 655 Peoria St, Aurora; 1155 S Havana St, Aurora; *Southglenn Mall*: 6911 S University Blvd, Littleton/Englewood; *Aurora Mall*: 14200 E Alameda Ave, Aurora; *Albertson's*: 16801 E Iliff Ave, Aurora; 4100 S Parker Rd, Aurora;

BOULDER COUNTY—(Mon to Fri, 4 to 8 p.m., Sat, 10 a.m. to 4 p.m.) *King Soopers* at: 3600 Table Mesa Dr, Boulder; 6550 Lookout Rd, Boulder; 30th St and Arapahoe Rd, Boulder; 2255 N Main St, Longmont; *Liquor Mart*: 1750 15th St, Boulder;

DENVER COUNTY—(Mon to Sat, 11 a.m. to 7 p.m.) *King Soopers* at 3125 S Sheridan Blvd; 2727 W Evans Ave; 890 S Monaco Pkwy; 755 S Colorado Blvd; E Hampden Ave and Monaco Pkwy; E Hampden Ave and Evans Ave; E 14th Ave and Speer Blvd;

E 9th Ave and Corona St; E 13th Ave and Kearney St; 2200 W Alameda Ave; *Safeway*: S Colorado Blvd and Mexico Ave; E Quincy St and Tamarac St; E Evans Ave and Downing St; Yale Ave and Monaco Pkwy; 2880 S Colorado Blvd; E 20th St and Washington; 44th Ave and Lowell Blvd; E Colfax and Josephine St; E 14th Ave and Krameria St; W Louisiana Ave and Federal Blvd; W 26th Ave and Federal Blvd; *Aylards Crestmoor*: 300 Hudson St;

DOUGLAS COUNTY—(Thurs and Fri, 4 to 7 p.m.; Sat 10 a.m. to 7 p.m.) *Hill's Market* at S Parker Rd, Parker;

JEFFERSON COUNTY—(Mon to Fri, 4 to 8 p.m.; Sat, 10 a.m. to 4 p.m.) *King Soopers* at: W 100th and Wadsworth Blvd; W 64th and Ward Rd; W 80th and Wadsworth Blvd; W 32nd and Youngfield Ave; W 20th and Depew St; Robb St and W Colfax Ave; Kipling St and W Florida Ave; Alameda Ave at Green Mountain; W Belleview Ave and Kipling St; Coal Mine Rd and S Pierce St; at Bergen Park; *Safeway*: W Colfax Ave and Garrison St; Alameda Ave at Green Mountain; Harlan St and W Alameda Ave; Ken Caryl Ave and S Pierce St; 17th Ave and Jackson Rd, Golden; at Evergreen; at Conifer; *Westland Shopping Center*: W Colfax Ave and Miller St; *Villa Italia Mall*: W Alameda Ave and S Wadsworth Blvd; *Albertson's*: Garrison St and Ken Caryl Rd; *Southwest Plaza*: Kipling St and W Bowles Ave.

Space station program shifts into high gear

A team that includes veterans of the Skylab program, among others, has been assembled to pursue for the company a share of space station business that could amount to \$1 to \$2 billion over the next decade.

Brian Quinn, director of space station program development for Denver Aerospace, said from 35 to 50 people at Denver and Michoud have been working on space station activities since the beginning of the year. Michoud is expected to play a significant role in Martin Marietta's space station effort. The team is headed by James W. McCown, vice president and space station program manager.

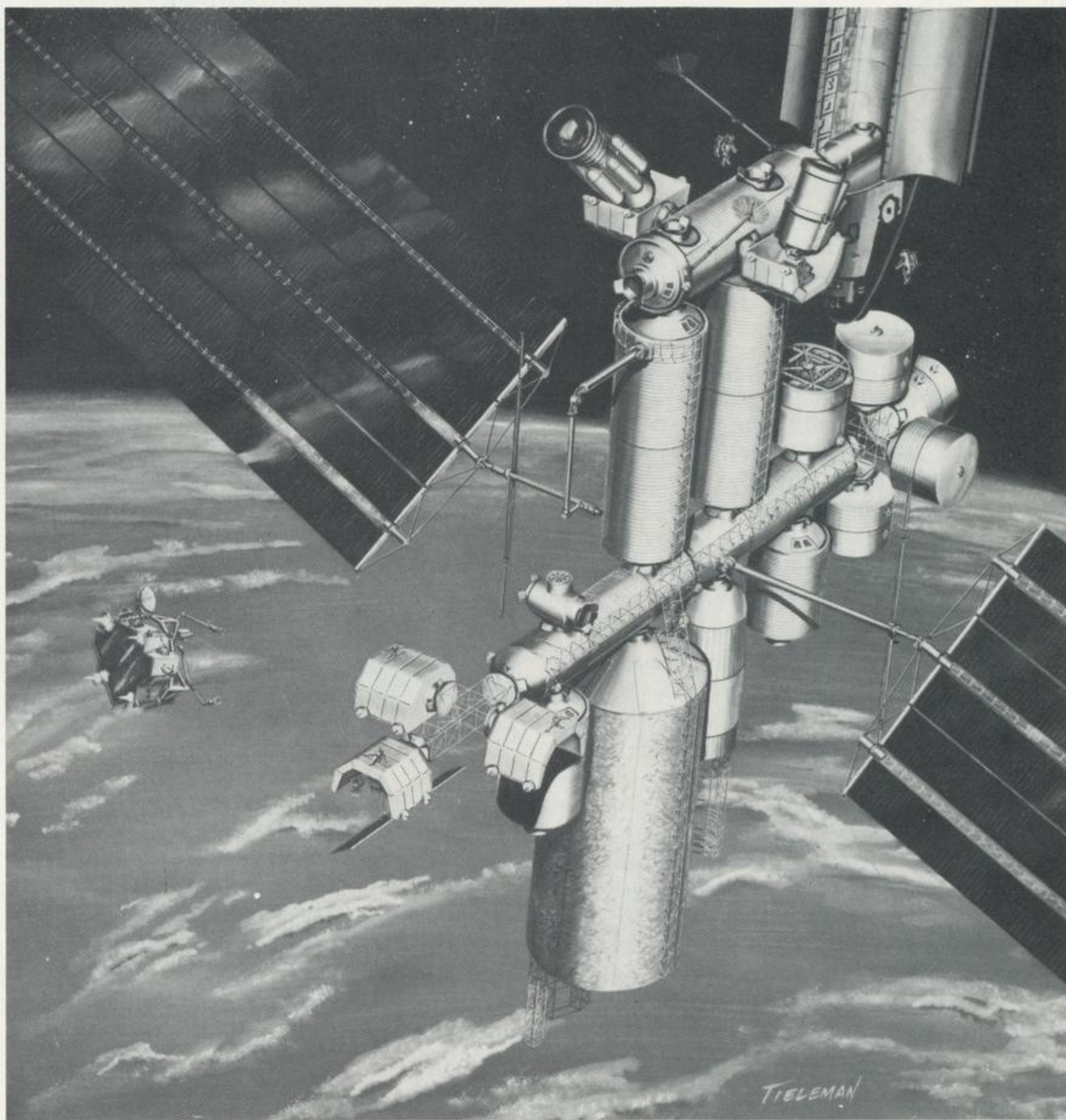
"That team brings an awful lot of experience to our space station activities," Quinn said. "On the basis of that experience, we're very bullish on our ability to lever ourselves into a major part of the space station effort."

In his State of the Union message in January, President Reagan directed NASA to develop a permanent, manned station in space by the mid-1990s. NASA is considering a number of alternative space station design concepts, and is expected to request proposals in late August or early September for definition and preliminary design work that will lead to selection of a single concept.

Denver Aerospace has conducted studies of many elements that will go into a successful space station system. The studies, initially developed for NASA and continued independently by the company, include the station's configuration, full system architecture, and the process by which the system would evolve from the delivery of initial components to full operational capability.

Quinn said a space station would serve as a laboratory to conduct scientific experiments, a factory to manufacture materials in a zero gravity atmosphere, a base for satellite servicing and refueling, and a "stepping stone" to exploring the universe.

The company has developed a range of capabilities that make it ideally suited to play a large role in space station develop-



Artist's concept of space station

ment, he added. Those capabilities were acquired in the Skylab, Viking, Space Shuttle, Manned Maneuvering Unit, and SCATHA programs, among others.

"We feel confident that we will win a major fraction of the space station," Quinn said. The space station team is doing a number of things to help make that happen, including meeting with technical experts and others at NASA to determine how they envision the space station.

Members of the team also are meeting with other contractors, which may lead to possible teaming arrangements, and with government and business representatives in other countries.

When the company receives the space station request for proposal (RFP), it will have 60 days to respond. Award of competing contracts for various definition/design activities is expected early in 1985.

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DENVER AEROSPACE
P.O. Box 179—Denver, CO 80201

July 20, 1984

Waterton drivers cautioned

Denver Aerospace employees are urged to be extra cautious as they enter and leave the main plant in the wake of an automobile/truck accident that claimed the lives of two employees.

Killed in a head-on collision July 13 were John P. Coan, 54, manager of production operations in defense systems, and Robert L. Tyler, 40, a lab technician in the technical operations test department.

T.M. Crawford, Jr., director, personnel safety and security, said Highway 75 leading up to the plant is extremely dangerous because of a sharp curve just before the main gate. He said there have

been two other fatal accidents on the same stretch of road in the past five years.

"The posted speed limit is 45 approaching the plant entrance," Crawford said. "I strongly urge all employees to observe all speed limits, especially those entering and leaving the plant."

PSP rate increased

The Fund B annual interest rate in the Performance Sharing Plan has been increased from 11.75 to 11.85 percent, effective July 1, 1984.

Recreation

(Editor's note—Martin Marietta Denver Aerospace's Recreation Department, ext 6750 and 6605, is located in Engineering Bldg, module 124. Flyers on sports and other extracurricular activities, discounted tickets, special sales, and trips are available from that office and from the department's information racks throughout the company.)

ARCHERY—The Archery Club's 3rd annual family barbecue and shoot will begin at 8 a.m., Saturday, August 11, at the club's main plant range. Events include shoots for children under 13, endurance, and trophy; seminars in locating and stalking, and shot placement and trailing (Rich McNutt, ext 3324). The club also announced that it is looking for new members, and all current members must verify membership with Jim Kemp, ext 4203; Tom Hansen, ext 3186; or Rich McNutt, ext 3324.

FLAG FOOTBALL—Attendance is mandatory for all team captains at an organizational meeting at 4:30 p.m., Thursday, August 2, in the Engineering Bldg second floor presentation room. Others interested in forming teams should contact Recreation.

PRO FOOTBALL—Only about 200 tickets are available for choice seats to the clash between the Broncos and the Washington Redskins at 7 p.m., Saturday, August 4, at Denver's Mile High Stadium. Tickets, at \$19.25 each, are available through Recreation.

RIDING—The Ridge Riders Saddle Club's overnight trail ride gathers at 4 p.m., Friday, July 27. Another O-Mok-See will begin at 8:30 a.m., Saturday, August 11, in the company's recreation area. O-Mok-See is an Indian name for a variety of horse racing competitions that include barrel and flagpole events (Frank Roe, ext 9592).

SOCCER—The Martin Mariners are still looking for players. Potential competitive soccer players should attend practices every Thursday at 6 p.m., on the east side fields of Foot-hills Park at West Hampden Ave and Kipling St. (Robert Avjian, ext 2968).

Volunteers needed for big horn habitat program

Volunteers are needed to help in the Rocky Mountain big horn sheep habitat improvement project during upcoming Saturdays and Sundays in Waterton Canyon.

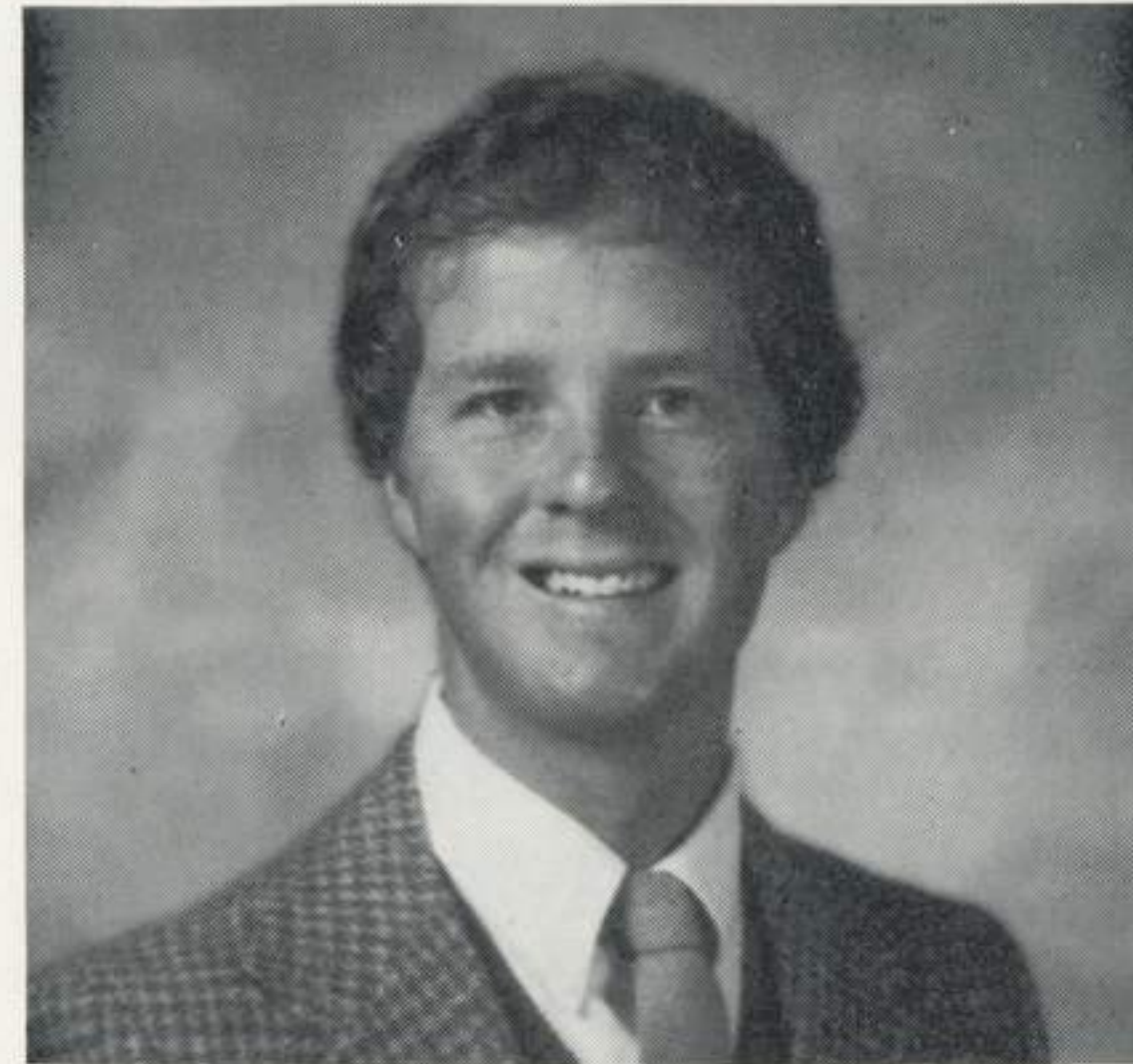
Interested employees should contact Todd Kisling, ext 3840 to sign up and get detailed workday information for July 21 and 28; and August 5, 11, 18, and 26.

Denver Aerospace has been involved for the past two years in the interagency cooperative effort to help the dwindling big horn sheep not only survive in the canyon, but to thrive and multiply. Other

participating organizations are the Rocky Mountain Big Horn Sheep Society, the Colorado Division of Wildlife, the Denver Water Board, the U.S. Forest Service, and the U.S. Bureau of Land Management.

A five-year habitat development plan for the entire Waterton Canyon has been prepared to establish goals, objectives, and responsibilities for the program. Research and field testing has shown prescribed fire to be the most effective alternative for habitat development. Repetitive burns during the next few years will keep standing oak brush from encroaching on grazing areas.

Employee's son wins DU honors



The son of a Martin Marietta employee who won a number of honors at his recent graduation from the University of Denver (DU) is now participating in efforts to solve the school's financial problems.

James Andrew Bowman, son of mechanics staff engineer James A. Bowman, was hired to work for the DU development fund program following graduation with a bachelor's degree in his political science major. Bowman is one of 11 children, three of whom also work at Denver Aerospace.

The younger Bowman—who graduated cum laude—brings an impressive list of credentials to his new job, including outstanding senior man. Other honors to his credit: Phi Beta Kappa, honors program, Kynewisbok pioneer award, honors in political science, Omicron Delta Kappa, Mortar Board, and Who's Who Among Students in American Universities and Colleges.

CPR classes scheduled next week

A friend or family member might be one of the estimated 1.5 million Americans who will have a heart attack this year. About 550,000 of them will die.

But individuals can help cut those statistics through training in the life-saving technique of cardiopulmonary resuscitation (CPR).

The skills training department, ext 6166 and 5546, and the Colorado chapter of the American Heart Association will conduct CPR classes from 5:30 to 8:30 p.m., July 23 through 25; and from 8 a.m. to 5 p.m., July 28.



William E. Rogers, director of logistics at Denver Aerospace, has been selected to receive the Society of Logistics Engineers (SOLE) President Award for Merit for the 1983-84 SOLE year. Rogers, who has been with the company since 1958, was recognized "for the tremendous effort expended in presenting the Life Cycle Cost Analysis workshop series for the professional organization." The award will be presented at the annual banquet in Minneapolis, August 22.

JA advisor training starts next month for volunteers

Junior Achievement (JA), a program to teach high school students about business through hands-on experience, will conduct advisor training during August.

Those volunteer advisors help the students establish and operate a small-scale business throughout 15 weeks, beginning with the start of the school term during September. Junior Achievers will encounter the same marketing, production, and financial aspects of business experienced by large companies.

Past JA volunteers have dubbed the program a smart investment, because it stimulates interest in business careers, creates positive attitudes about business, and fills a void in the educational system.

Denver Aerospace employees with backgrounds in administration, sales or finance, and production should contact Lori Sharp, JA coordinator, ext 6605 by Friday, July 27, about volunteering their services and getting into the advisor training sessions.