

April 12, 1990 Number 7



**Astronautics
Group
shows off**

Astronautics Group may extend pipeline to South Platte

More stringent state requirements on water discharged into Brush Creek may require the Astronautics Group to extend the pipeline, from which it discharges treated wastewater, from its existing location on Brush Creek to the South Platte River.

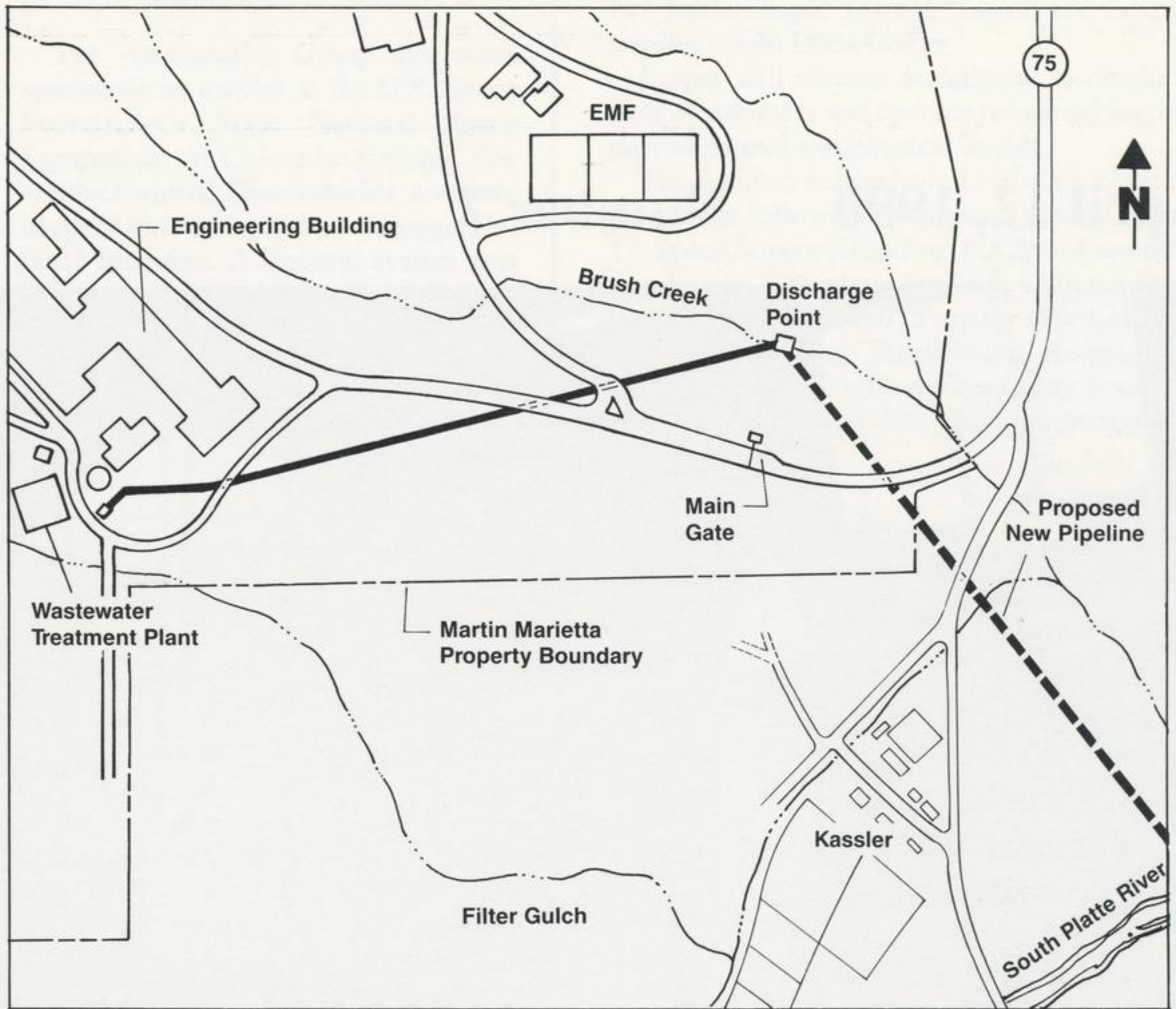
The state recently added an "in-stream" water quality standard for sulfate in Brush Creek, which is now classified as a drinking water source. The standard currently applies to a point at which drinking water may be withdrawn, such as a well. But in 1992 the standard will apply to water at any point in Brush Creek below the Astronautics Group's property line.

This creates a problem, according to Bob McMullen, director, Environmental Management, because the natural water flow in Brush Creek drops to zero at certain times of the year. Treated wastewater from the Astronautics Group Wastewater Treatment Plant at Waterton therefore becomes the only water in the creek and must meet all requirements for drinking water sources if the company continues to discharge at the present location.

Ferrous sulfate is used to remove pollutants from water during the treatment process at the Wastewater Treatment Plant. Effluent from the plant contains 300 to 600 parts per million (ppm) of sulfate, and the drinking water quality standard is 250 ppm.

The treated water discharged into Brush Creek is not diluted by existing water in the creek when the water flow is low or non-existent so the new in-stream standard would be exceeded, McMullen explained.

"The new pipeline simply will replace Brush Creek as a mechanism for conveying our treated wastewater to the South Platte River, where it will be diluted and therefore won't violate any in-stream water quality standard," McMullen said. "It will discharge into the South Platte at about the same location as Brush



Creek, and will not have any adverse impact on the river or the Chatfield Reservoir ecosystem."

McMullen added that construction of the pipeline was recommended by the Colorado Water Quality Commission and approved by the Colorado Department of Health.

The Astronautics Group has evaluated the feasibility of adding more processing equipment and found it to be too expensive to purchase, install, and operate. The company also is looking at other alternatives to the pipeline,

such as reducing the use of chemicals containing sulfates.

McMullen said the pipeline proposal is being reviewed by affected property owners along the proposed right-of-way, including the U.S. Army Corps of Engineers, which owns the property; the Colorado Department of Natural Resources, which leases and operates Chatfield State Park; and the Denver Water Department. A decision on constructing the pipeline is not expected until mid-1991. ■

SIP

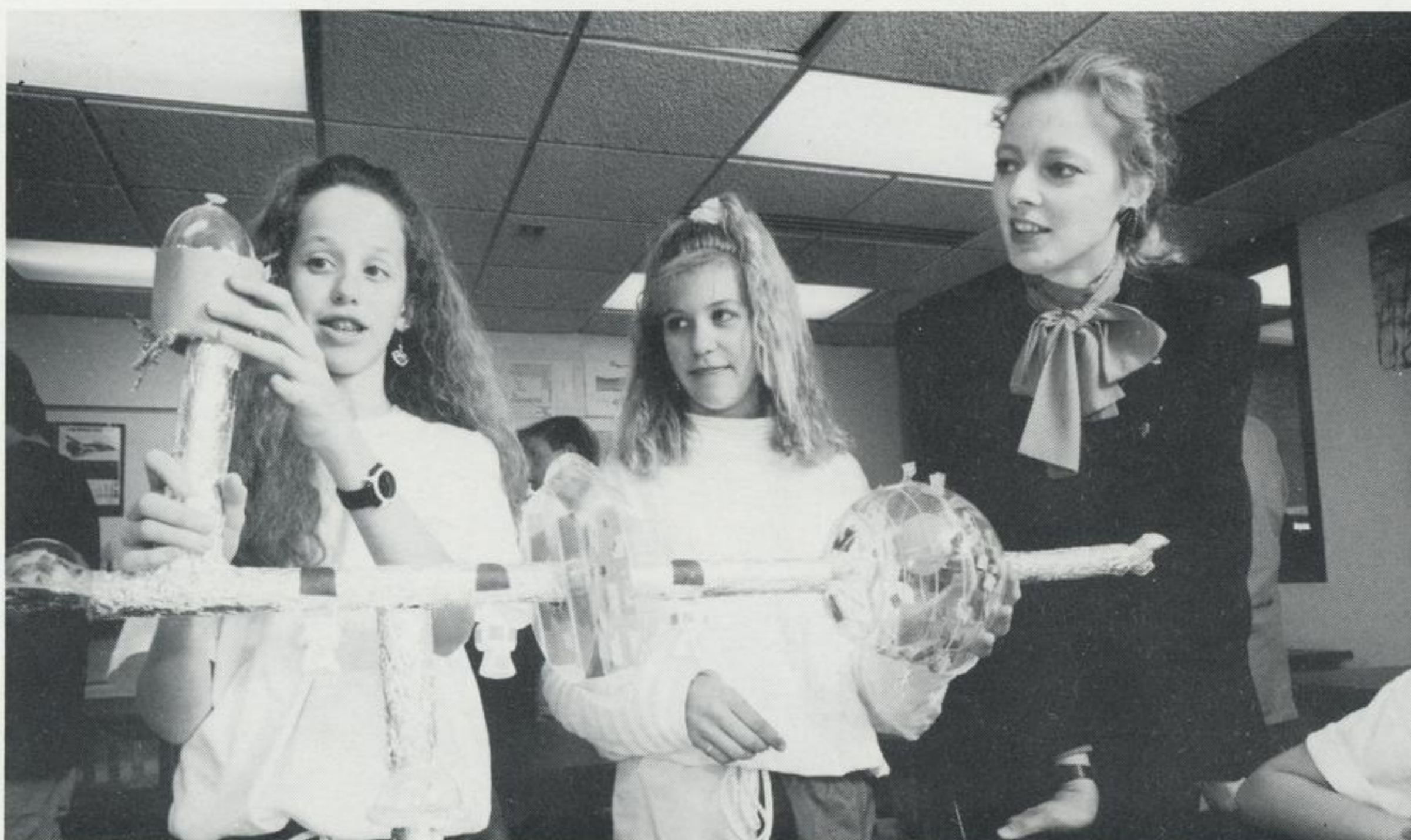
Unit values for the Savings and Investment Plan (SIP) for United Aerospace Workers (UAW)—and United Plan Guard Workers of America (UPGWA)—represented employees in February 1990 (January 1990 values in parentheses) are:

Fund A	1.2176813115
Indexed Equity	(1.2026245721)
Fund B	1.1969626050
Fixed Income	(1.1900390070)
Fund C	0.8101159866
Company Stock	(0.8401249445)

PSP

Unit values for the Performance Sharings Plan (PSP) for Salaried Employees in February 1990 (January 1990 values in parentheses) are:

Fund A	5.9195017562
Indexed Equity	(5.8394527028)
Fund B	3.4850224345
Fixed Income	(3.4595837237)
Fund C	4.2941447481
Company Stock	(4.4461320991)



Students build space homes

Jill Steele Mayer, Strategic Systems planner, and William Llewellyn, senior engineer for Strategic Systems, recently visited Powell Middle School to give presentations to more than 260 seventh grade students on the basics of designing space habitats. Mayer, right, is shown inspecting a space colony model designed and built by some of the students.

Space Systems announces new Operations department

Space Systems President James McAnally has announced that Technical Operations, under the guidance of Tom Marsh, now is called Operations.

The new Operations department, in Space Systems company, includes Test Operations, Manufacturing Operations, Space Systems Facilities, and Technical Operations.

John Vega continues as director of Subcontract Management and becomes Space Systems' lead for MRP II implementation.

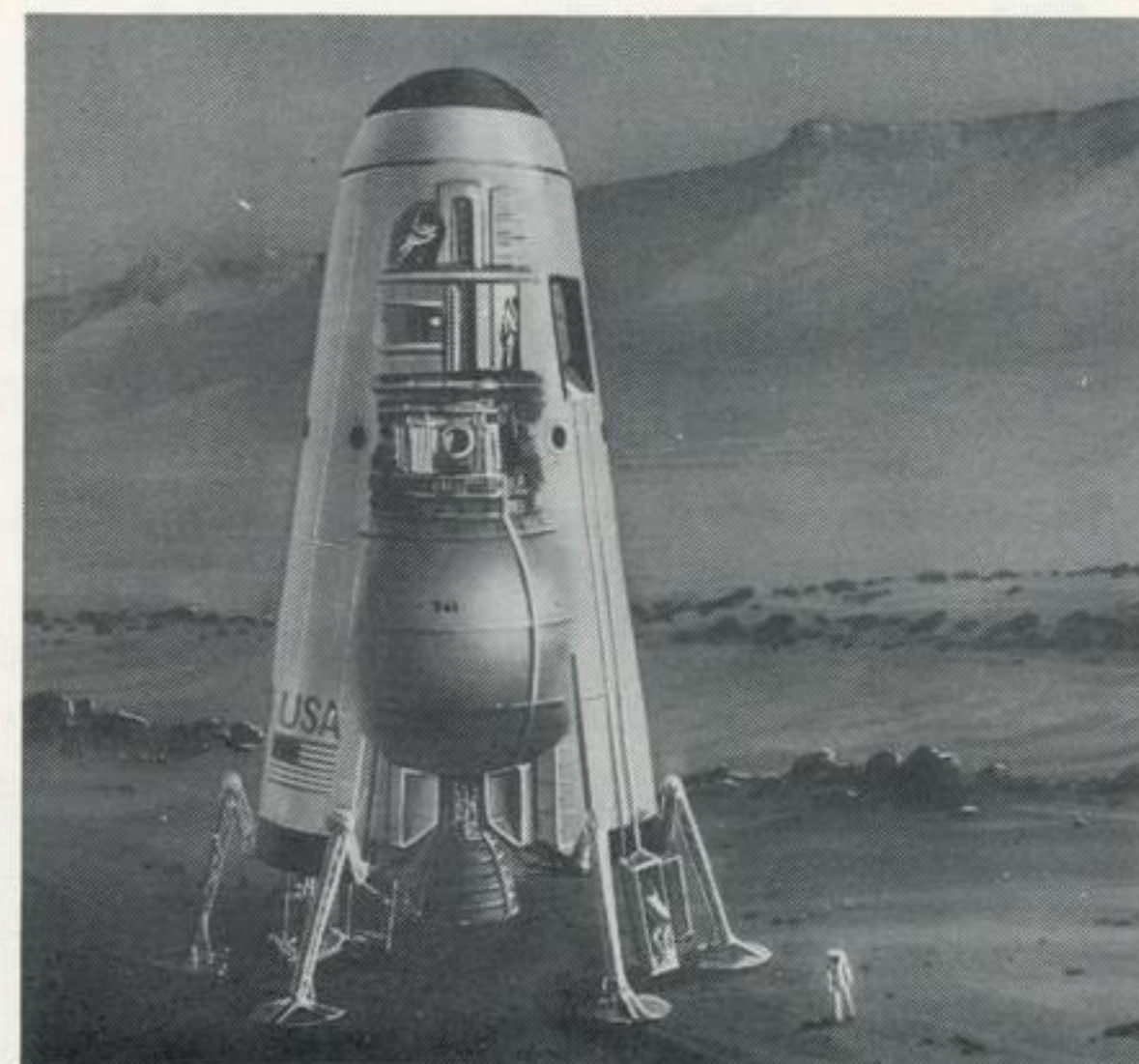
McAnally said the reorganization was made for several reasons.

"The creation of an Operations organization allows better focus on our internal customers consisting of NASA Systems, Special

Programs, Defense Systems, and the Military Space Systems product areas.

"Additionally, the organization aligns itself with the High-Performance Work Team concept from the top down," McAnally said. "An added benefit that may be realized is reduced requirements with respect to overhead needs."

He also said, "The Total Quality Management initiatives undertaken by the Astronautics Group are vitally important to the Space Systems company. The implementation of MRP II within the company spans several diversified areas. It is imperative that the scheduled transitions take place as planned, and Vega's added responsibility will do just that." ■



The above art, featured on the cover of the Feb. 23 Martin Marietta News, of the Nuclear Rocket Using Indigenous Martian Fuel was drawn from a concept created by Robert Zubrin and painted by Bob Murray. The News inadvertently credited Murray with the creation of the vehicle.

Corporate news

Corporation to demonstrate radar for poor-visibility landings

The Corporation will participate in a joint Federal Aviation Administration and U.S. Air Force program to demonstrate advanced radars that could significantly improve the safety of landing both military and civilian aircraft in darkness, rain, or fog.

Martin Marietta and three competing companies each received \$2 million contracts to define concepts for the Synthetic Vision Technology Demonstration, co-sponsored by the Air Force Aeronautical Systems Division's Flight Dynamics Laboratory and the FAA.

Orlando's Electronic Systems will conduct the program intended to demonstrate millimeter wave radars that operate at frequencies enabling pilots to see and land safely in darkness and adverse weather.

The Corporation plans to use millimeter wave radar technology it developed for various military systems, including the Army's Longbow fire control and weapon system and Multiple Launch Rocket System Terminal Guidance Warhead program, as well as company-funded research and development projects.

After the two-month study phase, one or two companies will be selected for a 10-month second phase competition.

Volunteers needed for WalkAmerica

Employees are encouraged to help the March of Dimes by signing up for the WalkAmerica/TeamWalk on Saturday, April 28, said Debbie Smith, Astronautics Group TeamWalk captain.

Participation in TeamWalk is voluntary, and Smith said Martin Marietta actively supports and encourages employees to join the team.

More details, and sponsor forms, are available through Smith at Ext. 1-4674. ■

East gate at LSC gets new hours

Plant Protection has changed the hours of operation for the Littleton Systems Center east gate to 6 to 8 a.m. and 3 to 5 p.m. Monday through Friday.

Traffic traveling to and from the rear LSC parking lot during off hours should use the west gate entrance, just off Mineral Avenue. ■

Vendor exposition schedule for May

The Office Automation Futures Group is hosting the 1990 Vendor Day Expo May 16 and 17 in the Deer Creek auditorium. Employees are encouraged to attend and explore the variety of products that will be featured. ■



Saving bonds drive starts

The 1990 U.S. Savings Bonds campaign for the Corporation began in early March with a kick-off meeting in Bethesda. A. Thomas Young, the Corporation's president and chief operating officer, left, spoke to the group headed by Stephen P. Zelnak, Aggregates company president and corporate-wide campaign chairman, center. Pictured at right are Jim Schaefer, Astronautics Group coordinator, and Stanley F. Albrecht, vice president of Human Resources and Astronautics Group campaign chairman.

Classified material cleanout scheduled

A one-day cleanout of all non-essential classified material will be conducted Tuesday, April 17, to comply with a Department of Defense requirement to minimize classified holdings by contractors.

On that day, all document custodians and holders of classified information must identify classified material that will be processed for destruction.

April 18 and 19 is scheduled for auditing, picking up, and destroying classified material. Employees involved in this activity have been contacted and are aware of the procedures. ■

On the cover

The Astronautics Group this week sponsored an exhibit at the U.S. Space Foundation's Sixth National Space Symposium in Colorado Springs. The exhibit featured Titan vehicles, a variety of space initiatives, and the Strategic Defense Initiative. A Unistrut system was built around the exhibit and four television monitors were used in the system for video tapes and live coverage of the Hubble Space Telescope launch activities from Florida.

Success over stress

The Employee Services and Recreation office has arranged several "Lunch and Learn" seminars with Dona Leiper.

Leiper will discuss techniques to obtain a state of calmness and become refocused for improved mental and physical health.

The sessions will be from 11:30 a.m. to 12:15 p.m. in the following locations: Tuesday, April 17, Space Support Building, 6th floor Presentation Room; Thursday, April 19, Littleton Systems Center, Room 107; Tuesday, April 24, Engineering building Presentation Room; and Thursday, April 26, Deer Creek, first floor Finance Conference Room, most southern point of first floor. ■

Employee services/recreation

Softball Leagues—Information sheets and rosters for the 1990 softball season are in the information racks. Completed rosters and full payment of \$10 per player are due in the recreation office by Thursday, April 26. Teams from 1989 are given space priority if they remain in the same league, and submit rosters and payment by April 17. The season's tentative start date is the week of May 7.

Pre-Season Softball Tournament—This event is scheduled for April 27 to 29 at the company recreation area. The entry fee is \$100 per team and the registration deadline is Tuesday, April 24. Entry forms are in the information racks.

Golf Tournament—The Martin Marietta partner (foursome scramble) golf tournament is Saturday, May 5, at Raccoon Creek golf course. Shotgun start time is 7 a.m. and the tournament is open only to employees and retirees of the Astronautics Group, Information Systems Group, and Internal Information Systems. Registration forms and \$45 entry fees are due at the Deer Creek Recreation and Employee Services office by April 20. Early registration is advised because the tournament usually reaches capacity before deadline. Entry forms are in the recreation racks.

Colorado Corporate Games—Martin Marietta employees are urged to try out for the company's 10th Annual Corporate Games team. The competition, June 8 and 9, involves more than 30 corporations and is a fund-raising event for the Colorado Special Olympics. Men and women are needed for track, tennis, racquetball, swimming, bicycle, golf, trap shooting, 5k run, and 5k race-walk competitions. Bowling participants were selected from the masters qualifying tournament in January. Volleyball team members will be selected from the current co-ed competitive league. Open Events, a new category this year, include indoor co-ed soccer, two-man volleyball, pistol shoot, and horseshoes. These events are open to the general public, have separate entry fees paid by the participants, and do not earn team points. Employees interested in participating as athletes or volunteers can obtain Corporate

Games flyers from the recreation racks. Completed forms should be returned to the Employee Services office by April 18.

Ascot Theatre Discount—Employees can save \$4 on dinner and theatre tickets at the Ascot Theatre by obtaining an Ascot Club card. The cards are available from the Employee Services offices at Deer Creek and Waterton, the company stores (Deer Creek, Waterton, and Littleton Systems Center), and from volunteer representatives at the Space Support Building, South; Lincoln; Viewpoint I; and Greenwood Commons.

Denver Nuggets Discount Tickets—Employees can order 2-for-1 discount tickets by mail or phone for the Nugget's Sunday, April 22, game against the Minnesota Timberwolves. Order forms are in the recreation racks, and all orders must be returned to the Nuggets office by 5 p.m., Tuesday, April 17. Credit card orders can be made by calling 893-6700, Ext. 134.

Shepherders Running Club—The spring race series will start Thursday, April 12, at 5 p.m. in Waterton Canyon with a two-mile scratch start. A handicap system will be used so that slow and fast runners have an equal chance of winning. Contact Phil Schaefer at Ext. 7-3998 for more details or to have your name added to the mailing list.

Winning Way To Lose—This program will begin the week of April 16 at the Deer Creek Wellness Center. Tone up and trim down for summer, and learn how to make your lifestyle healthier. The eight-week individualized program consists of measuring cholesterol, body fat, and blood pressure and weekly consultations for achieving your personal goals. Contact Diane Nolly at Ext. 7-7576 for more information or to register. The cost is \$25.

Commodore Users Group—All interested employees can attend the group's meeting at 5 p.m., Tuesday, April 17, in the recreation area clubhouse. Contact Dan Whittemore, Ext. 7-6324, for more information.

Hunter Education Classes—Class dates are set for 7-9:30 p.m., April 16, 18, and 19 at the VFW Hall, 3860 S. Jason St., in Englewood.

The range date is April 21, from 8 a.m. to 1 p.m., at the club's shooting range. Students must attend all class sessions. Registration will be taken at the first class, and a minimum of 10 students is required to continue meetings. The cost is \$7. Employees, family members, and friends are welcome to attend.

Parapsychology Club—The club will meet from 5 to 7 p.m., Tuesday, April 19 at Southpark West I, MIC Room. "The Concept of the 5th Dimension" will be the topic of guest, Dr. Deen Khandelwal, senior member, Professional Staff, in Orlando. All employees and guests, age 16 and older, are welcome. To reserve a guest badge or for more information, call Helen Davis at Ext. 1-6887.

Absence Makes the Heart Grow Stronger—Be HeartSmart and get a FreshStart with the American Cancer Society's smoking cessation classes. Martin Marietta and Air Force personnel, their spouses, and dependents can participate free of charge. The classes consist of four meetings from 5 to 6:30 p.m., April 16, 19, 23, and 26 at Goddard Middle School. Another session will be offered in May. Participants can obtain registration forms in the company education catalogues or from the recreation racks. Direct questions to Ext. 7-6605.

Career Women's Association—CWA will host a dinner meeting from 5:00-7:30 p.m., Tuesday, April 24, at the Radisson Hotel South. Claudia Chamberlain will discuss "Career Tools for a Culturally Diverse Workplace." Cost is \$15 for members and \$18 for nonmembers. Reservation are due to boosters by Friday, April 20.

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Call Ext. 7-5364 with information for articles.

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