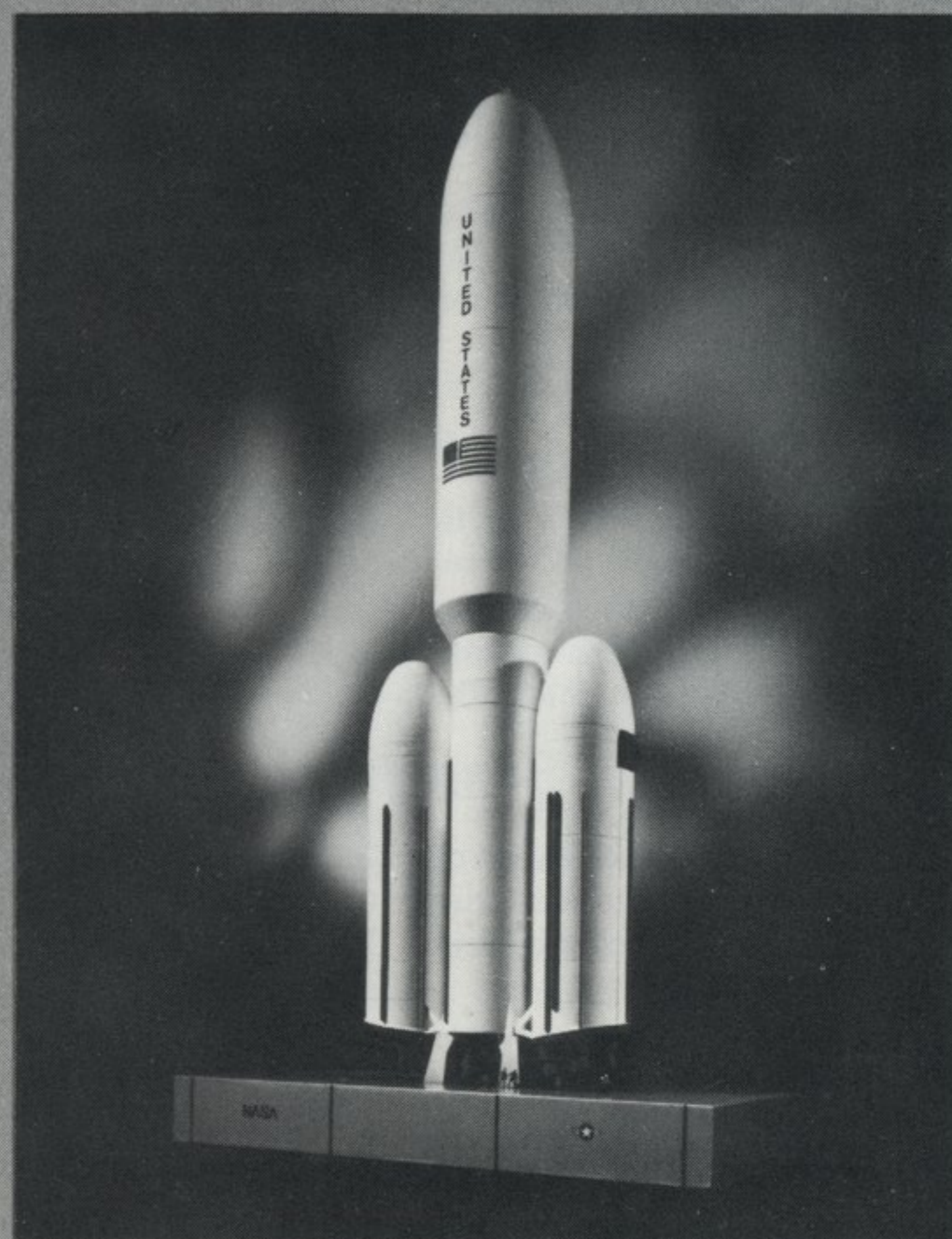
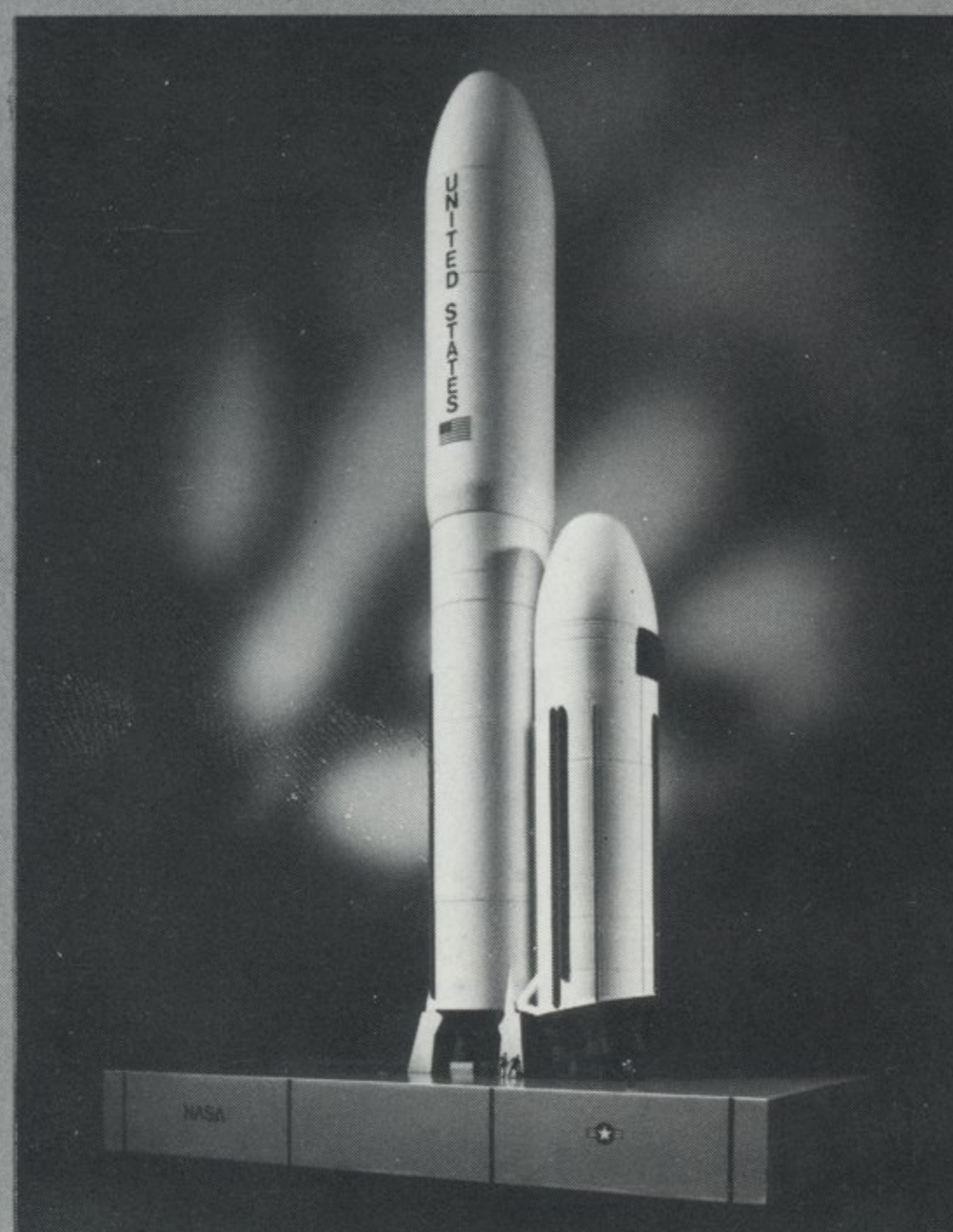
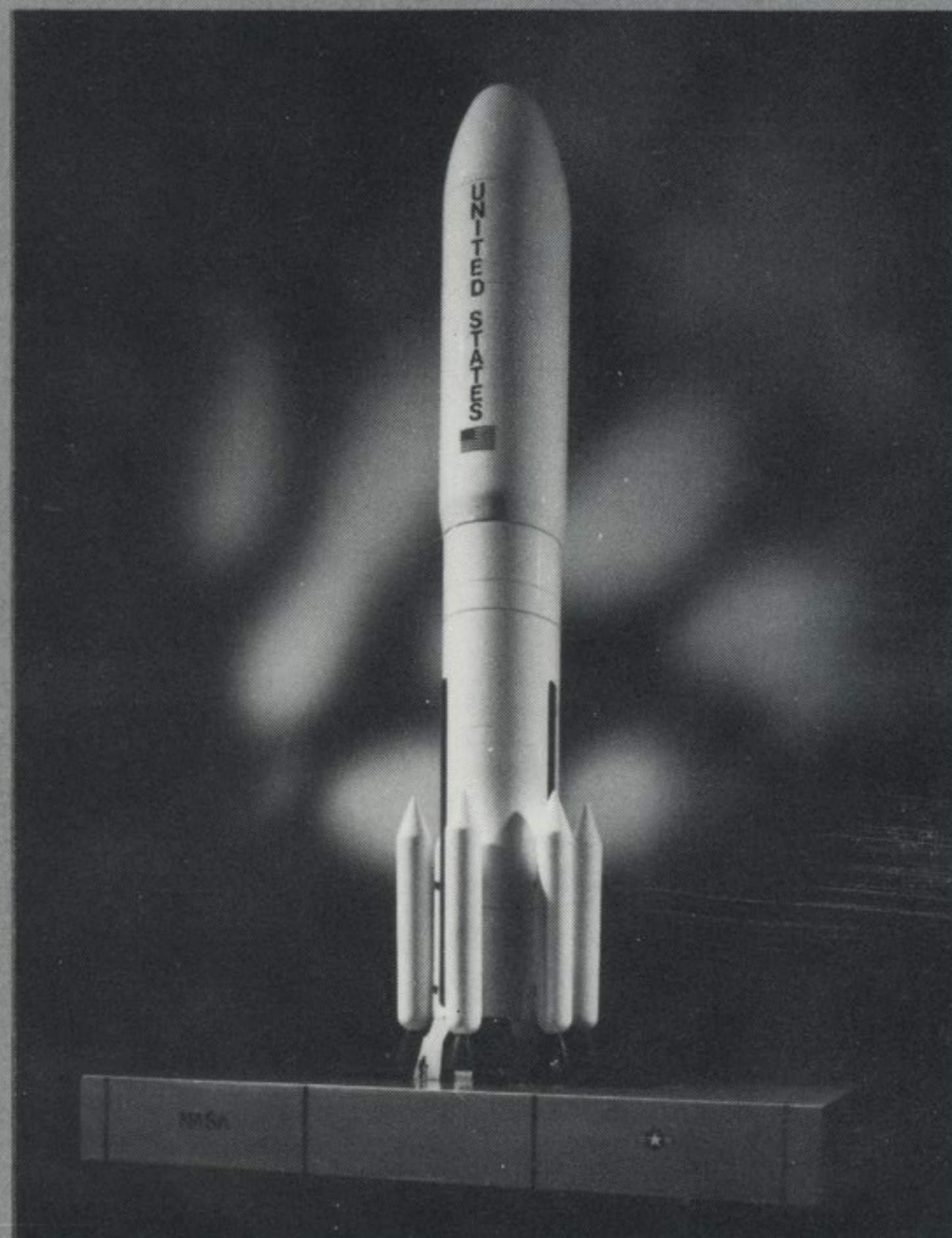
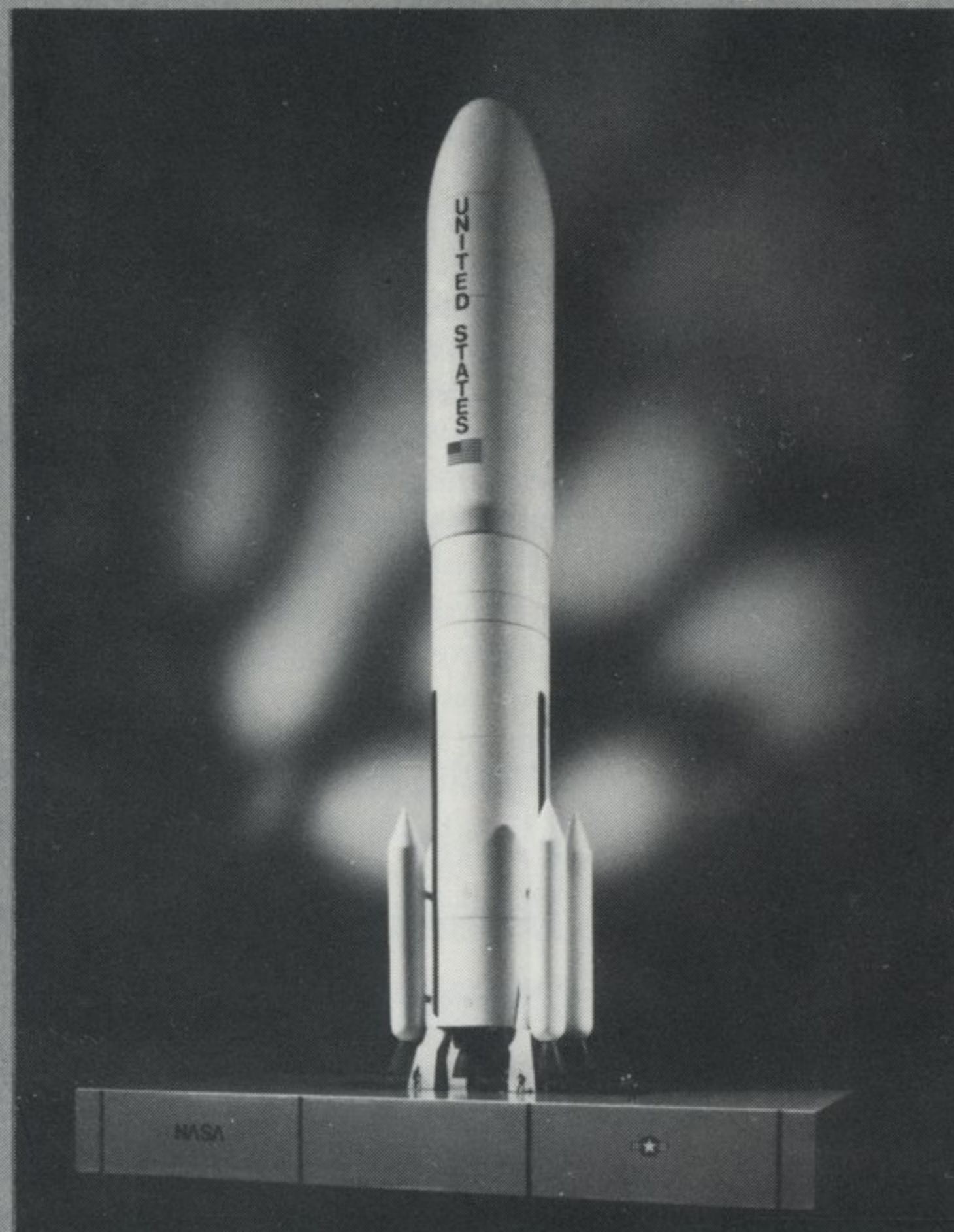


February 9, 1990 Number 3

New ALS concepts proposed





Editors visit plant

Buck Reynolds, manager of Detail Manufacturing, left, describes production processes in the first floor of the Factory to senior editors from the Rocky Mountain News. From left to right, next to Reynolds are Michael J. Finney, managing editor; Jay Ambrose, editor; and Christopher A. Cubbison, assistant managing editor. In addition to touring the Factory, the guests visited the Space Operations Simulator, and the R2P2 Laboratory, and were presented an overview of operations by Astronautics Group President Peter B. Teets. The Public Relations department hosts tours for community leaders about once a month. Last year, a total of more than 200 tours were conducted for more than 10,000 guests.

Group helps sponsor minority, women's program

The Astronautics Group and the Greater Denver Chamber of Commerce are currently teaming to sponsor the Minority & Women's Fast-Track Business Development Program.

In its third year, the program is one of the area's most progressive business development plans. Its primary function is to assist minority and women business owners to develop their companies.

During the first two years, the program helped more than 110 people start businesses, expand, and create new jobs for the local economy.

"This program is assisting many firms in improving their competitive posture and is an important factor in the continued business growth of Colorado," H. L. Watkins, manager of Materiel Operations, said.

As manager of Materiel Operations, Watkins heads the Astronautics Group's Small Business Development department.

Part of the role of that department is to assist small, minority, and women-owned businesses in improving their competitive posture. ■

Space Systems names Henry director of Business Management



Janice K. Henry

Janice K. Henry has been named director of Business Management for the Space Systems company, effective May 1. Henry is currently the secretary of the Corporation.

Henry joined Martin Marietta in 1974 as an accountant. She has

extensive background and training in business management and finance and was elected secretary of the Corporation in December 1985. Before that, Henry served as director of Business Management for the Corporation's commercial operations and as assistant corporate secretary.

Kathleen T. Sheehan will replace Henry as secretary of the Corporation. Last year, Sheehan was named assistant general counsel of the Corporation. ■

TQM workshop scheduled for March

Employees interested in learning more about Total Quality Management will have the opportunity to hear a leading authority on industrial performance measurement and improvement, Dr. D. Scott Sink. Sink will be featured at a one-day workshop sponsored by the Institute of Industrial Engineers on March 30 at the Writer's Manor Hotel, 1730 S. Colorado Blvd.

The cost is \$75. Reservations can be made by calling 977-8354. ■

Corporate news

Simulation Systems awarded Air Force contract

The Corporation has been awarded a contract to operate and maintain the U.S. Air Force Theater Air Command and Control Simulation Facility at Kirtland Air Force Base, N.M.

The simulation facility is designed to test air defense concepts, strategies, and tactics and to provide training for U.S. and NATO forces.

Under the contract from the Air Force Tactical Warfare Center, Martin Marietta will be responsible for transition of the simulation system from its current developmental phase into an operational system. With options, the

contract is valued at \$17 million over five years.

The work will be performed by Simulation Systems, a Colorado Springs-based operating unit of the Information Systems Group.

Simulation Systems is also the integration contractor for the design, installation, and operation of the National Test Bed at Falcon Air Force Base, a sophisticated simulation system for testing and evaluating Strategic Defense Initiative concepts, architectures, and applications.

Corporation promotes Bennett to senior vice president

The Corporation announced the election of Marcus C. Bennett, vice president and chief financial officer, to be a senior vice president and chief financial officer.

The board of directors approved the promotion at its regular monthly meeting in January. Bennett has been corporate vice president since 1984 and chief financial officer since 1988.

A native of Atlanta and a graduate of Georgia

Institute of Technology, Bennett has been with the Corporation for 30 years. He joined Martin Marietta at Orlando and served in a series of increasingly responsible managerial positions in contract management and finance there before moving to headquarters in 1975 as controller and treasurer. He was appointed vice president, Finance, in 1977 and vice president, Business Management, in 1980. ■

SIP

Unit values for the Savings and Investment Plan (SIP) for United Aerospace Workers (UAW) and United Plant Guard Workers of America (UPGWA) represented employees in December 1989 (November 1989 values in parentheses) are:

Fund A	1.2915868220
Indexed Equity	(1.2631377096)
Fund B	1.1825935553
Fixed Income	(1.1749914150)
Fund C	.9089944838
Company Stock	(0.821332752)

PSP

Unit values for the Performance Sharing Plan (PSP) for salaried employees in December 1989 (November 1989 values in parentheses) are:

Fund A	6.2605274698
Indexed Equity	(6.1186060831)
Fund B	3.4334338553
Fixed Income	(3.4059484456)
Fund C	4.7873903837
Company Stock	(4.3895726664)

Briefings set for master's program at DU

Briefings are scheduled this month for the University of Denver Master of Science in Systems Management program.

The program's coordinator, Sheila Bell, will present briefings from 11:30 a.m. to 12:15 p.m. and conduct registration from 12:15 to 1 p.m. on the following days: Feb. 13, Technical Support Building, Conference Room 502; Feb. 15, Deer Creek Facility, Wolfcreek Conference Room, R Level; and Feb. 26, Littleton Systems Center, Conference Room 136A. ■

Astronautics Group helps sponsor 10,000 trees project in April

In celebration of Arbor Day and Earth Day, Volunteers for Outdoor Colorado and the South Suburban Park Foundation have joined forces to conduct the largest single-day tree planting effort in Colorado's history.

The first phase of the three-phase "10,000 Trees Project" is scheduled for 9 a.m. to 4:30 p.m., April 21, along the banks of the South Platte River between Belleview and Bowles avenues in Littleton.

More than 1,200 volunteers are expected to gather to plant more than 2,400 broadleaf and evergreen trees and shrubs along the 1.5 mile reach of the river paralleling Santa Fe Drive.

The South Suburban Metropolitan Recreation and Park District will maintain the vegetation. The next phases of the project will include constructing new riverfront walkways and pedestrian spans to help alleviate congestion between bicyclists and pedestrians along the



"The Winslow Boy" airs today

Christopher Haley, is accused of stealing at school in Terence Rattigan's "The Winslow Boy," today on Great Performances on PBS (check local listings). Also featured this month on the Martin Marietta-funded series are "The Margot Fonteyn Story," Feb. 16; and "Dance in America: Bob Fosse—Steam Heat," Feb. 23.

Company-sponsored events announced

It's family time.

Last week, Stan Albrecht, vice president of Human Resources (formerly Personnel), sent a letter to employees' homes announcing the 1990 family events.

The first event is the Ice Capades 50th Anniversary Show on April 10, 11, and 12. The production will entertain all ages and features the Super Mario Brothers and Barbie. Other events include a Denver Zephyrs game on July 14 and Lakeside Amusement Park on Aug. 18 and 25.

The selection cards should be completed and returned to the Employee Services office, MS DC1344, before Feb. 14. Blank cards for Astronautics employees also are available in information racks or from the Recreation offices at Deer Creek and Waterton.

Resource directory established to identify in-house capabilities

A General Resource Directory has been created to help employees locate people, equipment, and service areas to increase the use of in-house resources.

The directory, a result of the 1989 Annual Performance Improvement Program, provides details on laboratories, products, and technologies.

All labs from the Central Laboratory Organization are included in the book, as well as many other labs that responded to a 1989 questionnaire aimed at creating this resource.

A limited number of directories were printed. Employees wishing to obtain a copy or who have questions about the directory should contact: John Sabo, Ext. 7-5421, MS 0350; Toby Duncan, Ext. 7-4979, MS 0350; Brian Emerson, Ext. 7-3045, MS H0341; and Georgia Keller, Ext. 7-3022, MS H0341. ■

Upcoming shuttle launches scheduled

The National Aeronautics and Space Administration has five Space Shuttle launches scheduled between now and the end of August.

The target launch schedule is:

- Feb. 22, Atlantis, Department of Defense mission;
- April 18, Discovery, the Hubble Space Telescope;
- May 9, Columbia, ASTRO-1 astronomical observatory mission;
- July 9, Discovery, Department of Defense mission; and
- Aug. 29, Columbia, Space Life Sciences Laboratory mission.

Laser print cartridges used for recycling

The Software Center of Excellence last year started a program to recycle toner cartridges from laser printers. During 1989, 208 cartridges were submitted for recycling, resulting in \$1,040 in donations to the United Way.

To recycle a cartridge from any laser printer, old cartridges should be placed in the packaging from the new ones and sent to Jeff Carter at MS L0330. In addition to preserving the environment, each recycled cartridge results in a \$5 donation to the United Way.

For more information, contact Carter at Ext. 1-6817 or 1-4850.

Tax forms available for employees

Federal and Colorado state tax forms are available to employees at four locations: South Lincoln Facility, Lucy Winka's office; Viewpoint I, Room 206; Waterton, ORB, Room 200; and at Deer Creek, outside the Employee Services office, A level, south end. Tax forms also are available at libraries

and post offices.

A branch IRS office is located in Lakewood at 1075 S. Yukon (1 block west of the Wadsworth and Mississippi intersection) with hours from 8 a.m. to 4:30 p.m. Monday through Friday.

30 years of service



Employees achieving 30 years of service in 1989 were honored recently at luncheons. Honorees include, standing, left to right: Al Vandenberg, Ronald Breska, Dwight Mosier, Charles White, Bill Bellis, and Ron Spicer. Seated, left to right: Jim Perkins, George Dameron, Bob Ballantyne, and Hugh Norwood.



Standing, left to right: David Ruybal, Emil Eggert, Mil Tanner, Eli Valencia, Gene Sobke, Tom Young, and George Munger. Seated, left to right: Bea Bloom, Robin Koelmel, Mary Lou Motsinger, and Darlene Lanning.

Commission challenges state to pursue, maintain economic growth in space science and industry

The report of the Colorado Commission on Space Science and Industry, released last month, recommends that the governor and General Assembly launch an initiative to compete for a share of the predicted worldwide growth in space science and industry.

Arnold Roane, director of Administration and a member of the commission, says that the commission and its report are significant for several reasons.

"The commission recognized that the space science and industry segment has a major economic impact on Colorado," Roane said.

He also said that forming the commission was important because Colorado is in a unique position by virtue of the local industry base, the nationally recognized government facilities, and the prominence of the academic institutions in the area.

And one of the most important results of the commission's work, Roane said, is that the commission and its report received full, non-partisan endorsement from the state and national legislators.

The degree of this acceptance is reflected by the introduction of Senate Bill 95, Roane said. That bill calls for creating a Colorado space advisory council for the purpose of advising the governor and the General Assembly on the implementation of the

Colorado space initiative. Hearings have begun in the Senate Committee on Business Affairs.

The commission, formed by Governor Roy Romer and the General Assembly in 1988, reported that the space industry is expected to be a major growth industry of the future and that other states are devoting substantial resources to attract such growth. In forming the commission, Romer also stated that the commission should "recommend ways to retain and expand existing public and private space science facilities in the state and to attract new public and private space science enterprises to the state."

Responding to the report, Romer said: "I am pleased with the opportunity and potential for Colorado. The commission's recommendations are consistent with the strategic plan for economic development which I submitted to the General Assembly early this month (January). I look forward to working with the legislature on this key initiative."

The Astronautics Group, Roane said, will benefit indirectly from the commission's work. "The commission brought to light the space science and industry growth opportunities in Colorado and that is of value to all industry, including the Astronautics Group."

ALS undergoes System Design Review

The Advanced Launch System team received rave reviews last week at an ALS System Design Review.

More than 70 government representatives from the Air Force, the Strategic Defense Initiative Office, the National Aeronautics and Space Administration, and elsewhere in the Department of Defense were here for the review.

In addition to systems design concepts, company officials also demonstrated a number of technologies being developed under the ALS program.

"Our customers were well-pleased with what we had to show them," said Richard W. VandeKoppel, director of the ALS program.

The modular family of vehicles concept is on the cover of this *Martin Marietta News*.

Also demonstrated were ALSYM (ALS Simulation Model), a collection of database models covering performance, cost, infrastructure, and other program elements, and a systems engineering database that received high marks at an earlier technical review. ■

On the cover

The Astronautics Group has proposed to the Air Force the concept of a family of advanced launch vehicles the company has developed under the Advanced Launch System contract.

The modular "mix-'n-match" family is based on a core vehicle that would have three liquid rocket engines and use different payload fairings and boosters, depending on the required payload. For example, in the upper left concept, four solid rocket motors are used as boosters for the family's three-engine, 32.5-foot-diameter core vehicle (which stands 265 feet tall with payload fairing shown) and can lift payloads in the 20,000- to 36,000-pound range. The upper right concept features the same core plus six solid rocket motor boosters and has a payload range of 37,000-78,000 pounds. The lower left concept again features the 265-foot core-fairing combination plus a seven-engine liquid rocket booster. It has a payload capacity in the 79,000- to 105,000-pound range. The 144-foot tall, 32.5-foot-diameter liquid rocket booster uses a liquid oxygen/liquid hydrogen fuel. The final member of Martin Marietta's ALS family is capable of boosting a 225,000-pound payload into an 80x150-nautical-mile, 28.5-degree eastern orbit. Using the three-engine ALS family core and a 45-foot-diameter payload fairing, the vehicle stands 320 feet tall and has a gross lift-off weight of 5.2 million pounds. The Astronautics Group was awarded the \$97.8-million ALS contract in December 1988.

The contract included developing both design concepts and technologies for an advanced launch system that would emerge as the next-generation heavy launch system for the United States. Although the Air Force is scaling back the system design effort due to budgetary constraints, technology development efforts are expected to continue at a level not yet completely defined. ■



"T" is for inventory

Representatives from the Material Control department and Inventory Systems join together to conduct a wall-to-wall line inventory in the Inventory Building. This baseline inventory is the second of a three-phase process designed to help the Astronautics Group implement Manufacturing Resource Planning (MRP II). This initiative is a structured approach to planning and monitoring all the resources of a manufacturing organization. From left to right, the employees pictured are Rob Allison, Reuben Willingham, Joe Gonzales, and Mike Salazar.

Make a "Smart Move" to quit smoking

Smokers who are thinking about quitting can attend a 45-minute "Smart Move" program, developed by the American Cancer Society.

Diane Nolly, R.N., will talk about the benefits of being smoke free and offer support and helpful tips.

The presentation will be conducted at 11:30 a.m. on the following dates: Feb. 15, Engineering Building, Presentation Room, by the second floor cafeteria; Feb. 20, LSC, Room 206; Feb. 22, Deer Creek, Independence Room, R level; and March 1, Space Support Building, Presentation Room, sixth floor. ■

Have a change of heart, benefit from fitness

Employees who want to enjoy the benefits of a healthier lifestyle can take advantage of many free and low-cost services at the Deer Creek Wellness Center. Free services include use of all equipment in the center and demonstration of proper usage, private fitness weight loss and nutrition consultations, body composition analysis, and blood pressure screening.

Cholesterol testing and aerobics and body toning classes are offered for a small fee. For details, call Mary Gillach, exercise physiologist, or Diane Nolly, R.N., at the center, Ext. 7-7575 or 7-7576, Monday through Friday between 11 a.m. and 5:30 p.m. ■



Teams work to clean 121

Members from High-Performance Work Teams in the Engineering Technology Labs work to pick up litter along Highway 121. The five teams from that area, comprising about 90 employees, have committed to clean at least once a month the one-mile section of 121 that starts at the bottom of the hill outside the Main Plant. Last month, 12 employees spent a Saturday collecting 42 large bags of trash in addition to several items too large to place in the bags. Shown in the picture are Jim Beall, Mike Inzana, Bob Anselmi, Dave Wilson, and Bernard Scott.

Employee services/recreation

Hunting and Fishing Club—The group will meet at 5 p.m. Monday, Feb. 12, in the clubhouse at the recreation area. For more information, contact Mel Smith, Ext. 1-8682.

Scuba Diving—Fathom Dive Club members, guests, and interested employees will meet for a potluck dinner at 6 p.m. Feb. 12 at the Greenwood Point Apartment clubhouse, 5324 S. Broadway Circle. Jennifer Simpson, former dive instructor in the Middle East, will present a travelogue titled "Ancient Egypt and the Red Sea" at 7 p.m. For more information, call Wayne Cox, Ext. 7-6800. The club is offering a trip to the Bahamas May 12-19. For details, contact Bill Gravell, 790-3380.

Red Rock Bowmen—Archery club members will meet at 4:45 p.m. Feb. 13 in the clubhouse at the recreation area. The club is offering a free seminar titled "Bugling the Illusive Wapiti" Feb. 13 and March 13 following the brief meeting. All employees are welcome to attend. For information, contact Hub Hubbard at Ext. 7-0975.

Satellite Ski Club—The group will meet at 7 p.m. Feb. 14 at the Bear Creek Run Apartment's Leasing Center (Kipling and Morrison Road). For more information, please contact Dan Ruedy, Ext. 1-9547, or Bob Foglia, Ext. 7-7122.

Parapsychology Club—Will meet from 5 to 7 p.m. Feb. 15 at Southpark West I, MIC Room. Ken DeMary, president of the Denver UFO Society, will present "UFO Potpourri," including a video, recent significant events, and report of a January conference. All employees and guests, age 16 and older, are welcome. To reserve a guest badge or for more information, please call Helen Davis, Ext. 1-6887.

Cross Country Skiing—A trip for intermediate to advanced skiers is planned for Feb. 17 to Herman Gulch. Beginner to advanced skiers can participate in a trip to Mayflower Gulch on Feb. 24. For more information, contact the group leader, Clay McGann, Ext. 1-2179.

Commodore Users Group—Employees will meet at 5 p.m. Feb. 20 in the recreation area clubhouse. For more details, contact Chuck Barton, Ext. 7-9950.

Ada/Software Engineering Working Group—Interested employees will meet at 5 p.m. Feb. 21 at Littleton Systems Center, Presentation Room. Contact Robert Lewis at Ext. 1-6731 for details.

Discount Ski Lift Tickets—Breckenridge full-day tickets are available for \$21 for adults, and \$11 for children, 6-12 years, and seniors, 60 years and over. The Winter Park

adult ticket is \$23, and the price for children 6-13 years is \$13. The Breckenridge adult ticket is \$3 less than at Front Range outlets, and the other tickets are \$2 less. The tickets are valid seven days a week until April 1 and are validated by the lift attendant at the ski area. Tickets can be purchased by check or cash from the employee stores at Waterton and Littleton Systems Center, or from the Employee Services office at Deer Creek. Checks only are accepted by the recreation representatives at Greenwood and South Lincoln facilities. A flyer with additional information is in the information racks.

Crested Butte Discount—Coupons are available for a discounted \$24 lift ticket at Crested Butte, valid through March 31. Employees can request coupons by calling the Employee Services office, Ext. 7-6605.

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