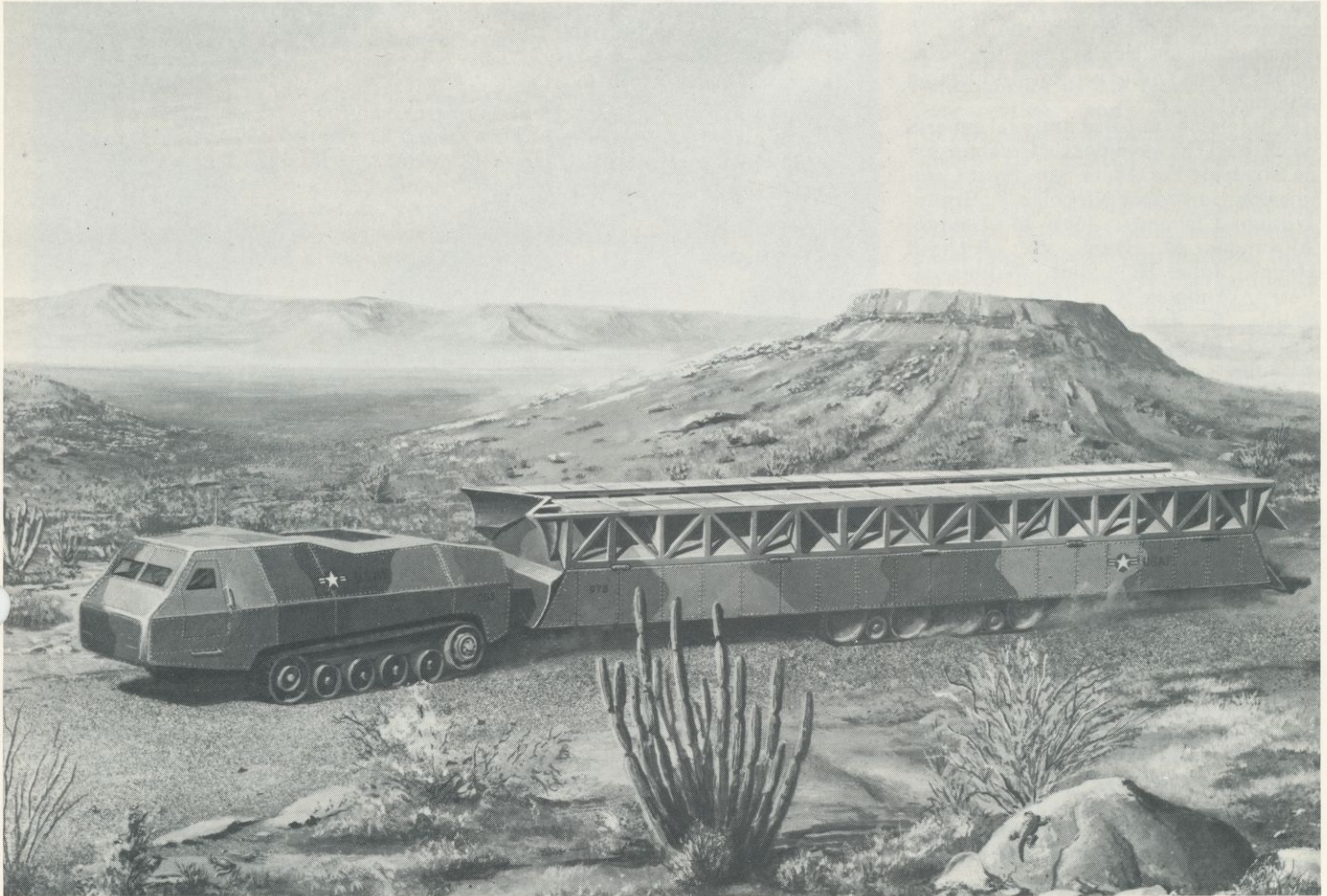


January 25, 1985 Number 2



Concept of hard mobile launcher by Denver Aerospace graphics artist Charles O. Bennett.

## \$46.9-million contract

# Denver wins mobile launcher study

Martin Marietta Corporation has been awarded a \$46.9-million contract by the U.S. Air Force to design, build, and test a prototype of the hard mobile launcher for the small intercontinental ballistic missile.

The company was one of two selected by the Air Force Ballistic Missile Office for a parallel 21-month, pre-full-scale development project. The other company selected was Boeing Aerospace Co., Seattle, WA.

Under the contract, Martin Marietta Aerospace and its teammate, the Caterpillar Company, will perform design

feasibility studies and build a prototype of the mobile launcher to conduct additional feasibility and validation studies.

One of the two competing prototypes, it is expected, will be selected for future development. Initial deployment of the small missile system is currently projected for the early 1990s.

The hard mobile launcher is designed to transport, protect, and launch the small intercontinental ballistic missile. Both the small missile and the mobile launcher system are part of a strategic modernization program recommended

by the President's Commission on Strategic Forces and approved by Congress in 1983.

Martin Marietta Aerospace recently completed a \$6.5-million concept definition study for the hard mobile launcher as one of four companies originally selected. Preliminary designs of the launcher include options for both on-road and off-road capability. Design studies have emphasized deployment on government installations. The company previously received a contract for weapons system concept definition of the small missile.



# Scowcroft Commission

## Panel reviews strategic forces

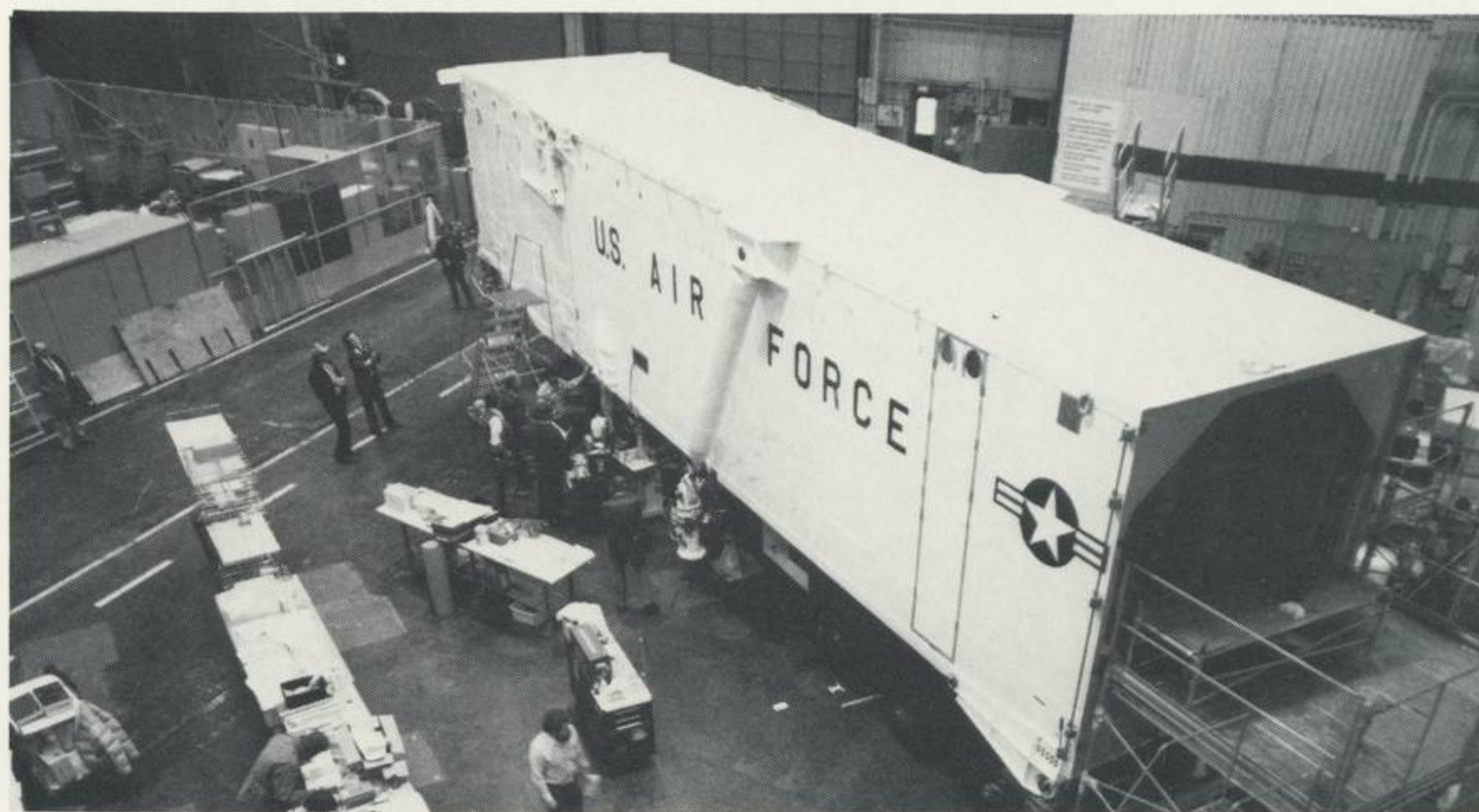
On January 3, 1983, President Reagan requested a review by the Commission on Strategic Forces of the strategic modernization program of the U.S., to examine, in particular, the future of ICBM forces and to recommend basing alternatives.

A bipartisan panel of national experts comprised the President's Commission on Strategic Forces, or Scowcroft Commission, including Nicholas F. Brady, William Clements, John M. Deutch, Alexander M. Haig, Jr., Richard Helms, John H. Lyons, William J. Perry, Thomas C. Reed, Levering Smith, R. James Woolsey, Harold Brown, Lloyd N. Cutler, Henry A. Kissinger, Melvin R. Laird, John McCone, Donald H. Rumsfeld, James R. Schlesinger and Marvin C. Atkins.

On April 6, 1983, Gen. Brent Scowcroft, chairman of the commission, forwarded the group's unanimous conclusions to the President.

The commission found no simple solutions to the complex questions of basing U.S. forces, achieving equitable arms control agreements, and improving strategic stability. After lengthy review of the ICBM program, the following were recommended by the commission:

- 1) The engineering design of a small, single-warhead missile, and investigation of hardened silos, shelters, and hardened mobile launchers.
- 2) Prompt deployment of 100 Peacekeeper missiles in existing Minuteman silos.
- 3) A vigorous investigation of silo hardness as a possible later option of Peacekeeper and the small missile.



First engineering model of Peacekeeper emplacer is completed in January by the efforts of two shifts of factory fabrication people working seven days a week.

The commission also stressed arms control to focus evolution of strategic weapons toward more stability, while cautioning against precipitous moves in that direction, stating,

“. . . it is illusory to believe that we could obtain a satisfactory agreement with the Soviets to limit ICBM deployments if we unilaterally terminated the only new U.S. ICBM program that could lead to deployment in this decade. Such a termination would effectively communicate to the Soviets that we were unable to neutralize their advantage in multiple-warhead ICBMs.

“Abandoning the Peacekeeper at this time in search of a substitute would jeopardize, not enhance, the likelihood of reaching a stabilizing and equitable agreement. It would also undermine in-

centives to the Soviets to change the nature of their own ICBM force and thus the environment most conducive to deployment of a small missile.”

The present international situation and the onset of arms reduction talks in Geneva does not change the commission's unanimous recommendations.

The report of the Scowcroft Commission presents a comprehensive, 30-page review of U.S. strategic deployment and arms control. Copies are available from the public relations office, ext 5364.

## MILSTAR:

### Satellite study continues

A \$2.22 million contract was awarded to Information & Communications Systems (I&CS) by the U.S. Air Force, Electronic Systems Division in January. The new contract is for additional study on the MILSTAR ICBM communications program during the next 12 months.

The contract value now totals \$4.6 million, and funds a concept definition and validation (CD&V) study to determine the most system- and cost-effective means of integrating the com-

munications capability of the military satellite MILSTAR into the Air Force's missile weapon systems (MWS).

MILSTAR is a joint program that includes the Air Force, Army, and Navy. The total system consists of a constellation of satellites and terminals integrated into ships, planes, and ground forces, including the MWS.

The department expects to submit a proposal for full-scale development this year. An award of the program is expected early in 1986.

### Project Referral

Match a friend or associate with one of the targeted openings identified in the new Project Referral targeted skills list and become eligible for a grand prize drawing for an expense-paid trip to Hawaii. The list is available from personnel administrators, department administrators, or personnel staffing (ext 0431).

Other prizes include monthly drawings for trips to shuttle launches in Florida. The \$2000 bonus and Project Referral notebook, features of the existing referral program, will continue.

The major change is that only positions listed on the targeted skills list will continue to qualify for these incentives.

Although the new campaign begins February 15, 1985, targeted skills lists will be available by February 1.





Carolyn M. Forshar, new employee benefits administrator.

## Group medical plan improves

A new vision care plan, and medical plan improvements that include lower deductibles and less out-of-pocket expense went into effect January 1, 1985, for salaried employees and their dependents.

The new plan will compensate for elimination of the flexible spending account.

Under the new plan, the current yearly \$500 deductible will be lowered to \$100 for individuals and \$200 for family coverage. After the deductible is paid, the plan will pay for 90% of all covered expenses. In 1984, the plan paid only 80%.

In some cases, the plan will pay all covered costs with no deductible or co-payment required.

Maximum out-of-pocket expenses, consisting of deductible and copayments, will be reduced from \$1500 to \$600 for an individual, and from \$2500 to \$1200 for a family.

The plan will also pick up the full cost of a second surgical opinion, now required in order to receive full reimbursement for some types of surgery.

By mid-1985, the plan will adopt a pre-admission certification policy and continuing stay review program to help employees obtain quality medical care and control costs.

Martin Marietta has also added a vision care plan to the salaried employee benefits package.

Employees must be treated by a panel doctor to receive full benefits. Panel doctors belong to a nationwide network of doctors that provide professional services to employees covered by vision plans.

Employees interested in using the vision services plan (VSP) and receiving a list of panel doctors must complete a vision-care request card, available from the benefits office, and mail the card to the VSP administrator before receiving service.

An annual open enrollment period offers employees a choice of three medical plans (which do not affect other benefit coverage such as dental, vision and life insurance). Open enrollment packets, mailed to employees January 18, must be returned to the benefits office by January 31, to change medical plans.

## Briefing

### Company helps the great lady

As part of the Corporate matching gift program for the arts, employees may donate as little as \$25 or as much as \$1000 toward restoring the Statue of Liberty.

Such gifts are matched dollar for dollar by the Martin Marietta Corporation. Employees must have worked for the company for at least one year to be eligible for the program.

Other organizations that qualify for matching gifts include museums, opera, drama and dance companies, symphonies, and certain arts and cultural centers. Donations to public broadcasting stations are not matched.

Forms are available from educational services, located in the Engineering Bldg, room 209, ext 5272.

### Scouting

Denver Aerospace would like to know the extent of employee participation in the Boy Scout program in the metropolitan area. If employees or members of their family are involved in any aspect of the scouting program, please call Fitzroy Newsum, ext 5366.

### Basketball

Ticket distribution for the first company-sponsored family event of 1985 begins February 5. Department administrators should pick up Nuggets basketball tickets from the employee service/recreation office on Tuesday, February 5, from 9:00 a.m. to noon, or 1:00 p.m. to 4:00 p.m.

## Augustine praises employee fundraising efforts



James W. McNally, kneeling, far right, United Way campaign manager, joins other employees who volunteered time to the Mile High United Way drive in 1984.

Martin Marietta Denver-area operations exceeded, by \$80,266, the Mile High United Way campaign pledge goal of \$1 million set in 1984. Contributions and pledges came to \$1,080,266.

Norman R. Augustine, company president, in a congratulatory letter to James W. McNally, vice president of

defense systems and the year's company United Way campaign manager, wrote in part:

"It is quite evident that you and the campaign workers did a masterful job in telling the United Way story."

Denver Aerospace and Information & Communications Systems (I&CS) re-

ported that 9587 of 10,591 current employees participated in the 7-county area campaign to benefit 88 participating agencies. These figures show 90.5% participation, compared to 85% last year. The total included a corporate gift of \$90,000 and \$57,000 from Data Systems.





**Space shuttle 51-C set for January launch.** These five crewmembers are scheduled to fly aboard the orbiter Discovery on the 15th space shuttle mission. Astronauts Thomas K. Mattingly II (kneeling right) and Loren J. Shriver (kneeling left) are commander and pilot, respectively. Astronauts James F. Buchli (standing center) and Ellison L. Onizuka (right) are mission specialists. Gary E. Payton of the U.S. Air Force, left, is payload specialist.

## Report card out: 90% award fee

The efforts of employees on the ground support systems (GSS) program at Vandenberg Air Force Base, CA resulted in a 90% award fee from the U.S. Air Force recently.

The award fee, for the period of May 12 to October 26, 1984, covered the program's overall performance during the third quarter. Major strong points highlighted by the Air Force include "strong corporate commitment to the Vandenberg program, effective subcontractor management, aggressive resolution of problems that could have adversely impacted our first launch schedule, and an effective problem-reporting and tracking system."

"Every member of the team put forth a maximum effort on the program," said J. Richard Cook, director of the Space Transportation System, GSS. "I'm extremely proud to be associated with all of them."

## Air Force & NASA delay first launch

The U.S. Air Force and NASA have jointly agreed to delay the first space shuttle launch from Vandenberg Air Force Base, CA until no earlier than January 29, 1986. This mission was scheduled for October 15, 1985.

Recent tile problems on the orbiter Challenger led to the decision to use the orbiter Discovery for two flights in mid-1985 from Kennedy Space Center (KSC). Discovery will be delivered to Vandenberg in early September 1985 instead of early May, as originally scheduled.

The Vandenberg launch site activation continues to progress. Deliveries of the external tank and solid-rocket booster skirt assemblies were made ahead of schedule.

## Notes from Security

Although the security department has issued over 10,000 vehicle registration decals, approximately 25% of Denver Aerospace employees have failed to attach the decals, reports Tom M. Crawford, director of personnel safety and security.

"These are a company requirement, and are necessary for gate control and in case of an emergency," Crawford said.

Decals belong on the left front bumper. Cars without decals will have notices placed on their windshield, explaining the registration procedure.

In February, cars without decals will receive tickets, Crawford advises. The names of those ticketed will be sent to department supervisors.

Those with long-term rental cars also need the decal.

Decals for authorized parking for handicapped employees or management should appear on the left side of the rear window.

## Forms deadline

Denver Aerospace employees who formerly worked for the Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA), as well as certain military officers, must report aerospace and defense-related employment by February 15.

Forms and information are available from Leroy Hollins, recreation office, ext 6750.

## Research funded

A 3-year research contract for \$1.7 million was awarded to Denver Aerospace on January 10 from the Defense Nuclear Agency in Washington D.C.

The contract calls for shock isolation concepts to support the new advanced hardness silo designs for ICBM deployment. The silo design program, which began last year, involves the next generation of nuclear-hardened silos, designed for 25 times greater resiliency to nuclear blasts than existing missile silos.

Kenneth R. Payne is program manager for the 3-year research contract.

### MARTIN MARIETTA NEWS

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MARTIN MARIETTA AEROSPACE

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

January 25, 1985



# Company ahead of regulations on environmental concerns

*Editor's note: Concerns over past waste disposal techniques at Denver Aerospace have been expressed by the media and by various government officials in recent weeks. The following reviews past and current practices.*

Denver Aerospace is complying with all federal regulations concerning handling and disposal of hazardous materials used or generated at the plant, company officials say, and in some cases actually has gone beyond what is required to protect the environment.

The company has a permit from the Environmental Protection Agency (EPA) to operate a surface impoundment for storage of inorganic wastes, and disposes of volatile hazardous materials by shipping them off the premises to EPA-approved disposal or recycling facilities.

In addition, the company has voluntarily conducted a groundwater monitoring program since manufacturing operations began at the Waterton plant over 20 years ago, even though there were no federal or state laws requiring such a program.

The program began in 1961 with the construction of nine monitoring wells to check groundwater for inorganic materials used in manufacturing and other operations at the plant. Two more wells were added in 1972.

Today, the company has 13 wells constructed according to current standards, 11 wells that have been in operation for a number of years, and 24 test holes.

"We have always strived to be in compliance with all environmental laws, and in fact have been ahead of these laws in many respects," said Charles E. Carnahan, vice president, production operations.

In 1982, Denver Aerospace expanded its groundwater monitoring program to test for volatile organics. At that time, organic compounds such as trichloroethylene (TCE), and inorganics such as fluoride, were detected in some of the wells and the State Health Department was notified.

Robert Snodgrass, director of facilities and services, said TCE is a cleaning compound used industrywide. Although TCE still is used in many industries, Denver Aerospace discontinued widespread use more than 10 years ago, when questions about its effects on health were raised. There is no regulatory standard for the presence of TCE in groundwater, but the EPA is working to identify an acceptable level.

As soon as TCE was detected in monitoring wells, the company began an active program to treat the water, and will continue to work with government agencies on the problem to assure compliance with various regulations.

Denver Aerospace currently is expanding efforts to deal with TCE by constructing additional monitoring wells and building a pumping system to intercept any contamination underlying company property. The system, which will consist of three additional wells and a treatment system, is scheduled to be operational this year.

Before 1979, both organics and inorganics were disposed of in one or more of four clay-lined evaporative ponds on Denver Aerospace property. Such disposal was an acceptable and commonly used practice at the time.

Before the ponds were built, the company hired a consulting firm to evaluate suitability of the soil for planned disposal activities to minimize any possible future contamination problems. The firm determined that because of the low permeability of soils in the area, the materials to be disposed of would not migrate out of the area. The four ponds eventually were consolidated into one, which was closed in 1979, and then covered with dirt in accordance with regulatory guidelines.

Although the old disposal site is closed, the company's own monitoring data have shown evidence of groundwater contamination by TCE and fluoride at the site. Snodgrass said private consultants began evaluating the site in 1982.

Work at the inactive site included drilling six monitoring wells in the area, monitoring the wells, and conducting an electromagnetic survey of the area to trace the course of any potential migration in groundwater.

Under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the EPA has conducted a preliminary assessment of the site. The inspection is part of the 4-phase CERCLA program to evaluate all inactive hazardous waste disposal sites across the country and determine if they pose any environmental risks and are candidates for federal cleanup.

The company currently is working with contractors to determine what needs to be done at the site, Snodgrass said. Meanwhile, EPA plans to come out early this year for another site survey.

"Denver Aerospace will continue to work hand in hand with regulatory agencies during this survey phase and any subsequent action to follow," Snodgrass said.

Martin Marietta has been using the EPA-approved surface impoundment located west of the company's waste treatment plant for storage of wastes since 1971. It is used today chiefly to dispose of chemical milling sludges generated from treatment of industrial wastewaters from the company's manufacturing processes. The pond meets all requirements of the federal Resource Conservation and Recovery Act (RCRA), and is inspected on a regular basis by EPA and the Colorado Department of Health.

Since 1979, Martin Marietta has disposed of TCE and other very volatile hazardous materials by shipping them off the premises to recycling facilities or EPA-permitted disposal facilities.

"We're very sensitive to the effects of hazardous materials, and we believe we have done a good job in our efforts to prevent any further groundwater contamination and to deal with any problems that may exist," Carnahan said.

The company also is cooperating with the Air Force in reviewing past environmental practices on Air Force-owned property at Denver Aerospace under the Department of Defense Installation Restoration Program (IRP).

Most Air Force-owned industrial facilities and bases are undergoing similar records searches to identify the location and status of former waste disposal sites. Appropriate remedial action will be taken at any of the facilities if required.

Phase I of the IRP, which involves a records search, identified six sites warranting further attention. In the second phase, the Air Force will take groundwater, surface water, and soil samples to determine if any environmental problems requiring further action exist.

## Board bestows highest honor

The board of directors of the American Institute of Aeronautics and Astronautics elected Norman R. Augustine, Denver Aerospace president, an honorary fellow. Augustine and two other newly elected honorary fellows will be presented at the April 11 honors-night banquet in Washington, D.C. Augustine served as AIAA president in 1984.



## Computer Co to host demonstration

Wang Laboratories will host a technology day on February 13 and 14 for Martin Marietta employees.

The first open session begins on February 13 at 4:00 p.m.; the second session begins at 8:30 a.m. and 1:00 p.m. on February 14—both in the SSB presentation room.

## Recreation

**ALPINE**—Rocky Mountain Alpine Club plans the following cross-country ski trips: Sat., January 26, Rollins Pass—call Gordon Sampson, ext 8277; Sat., February 2, Scott Gomer Creek—call Gordon Voss, ext 8288, or 973-6512; Sat., February 9, Loveland Pass—Marc Brideau, ext 8346.

**CHESS**—Chess Club meets the first Wed each month (next meeting—February 6) at 6:30 p.m., DSC I facility, 2nd floor snack-ateria. Dick Pickerell, ext 5891.

**PHOTOGRAPHY**—Club will meet Thurs, January 31, 7:00 p.m., DSC II, room G76. Winners of photo club contest will be named. Guest speaker, Joe Lange, professional photographer, will present slide show "Images of Colorado." Contact Bill Privatsky, ext 5920.

**RADIO**—Radio Club to meet Tues, February 5, 5:00 p.m., Ham Shack at top of hill in recreation area. Prospective members welcomed. Call Hal Beaver, ext 1575.

**RIDING**—The Ridge Riders Saddle Club's annual banquet will be held March 9. Call Frank Roe, ext 9592. Club members are selling Gold C books, \$5/book; names listed on recreation boards.

**VOLLEYBALL**—1985 Spring volleyball leagues now forming. Entry deadline is February 1, on first-come, first-served basis. Forms available in recreation racks. Contact recreation, ext 6750. Return forms to MS 1321.

## Engineering society seeks new members

The Denver chapter of The American Society of Mechanical Engineers encourages Denver Aerospace employees to attend their meetings, held the third Monday of every month. Contact Thomas Maceyka, 425-0800, ext 444, for times and locations.



**Astronaut Jon McBride, left, examines the caution and warning system display on the full-scale space station mockup at the Michoud Division as Robert Smith, vice president and deputy general manager of the external tank project, looks on. Martin Marietta has submitted a proposal for one of four space station work packages to be awarded in 1985.**

## Brochure explains property control

To help employees prepare for the contractor operations review (COR) audit, the property management department has developed an educational brochure that highlights the company's property control system.

The government requires control of property at Martin Marietta—everything from typewriters to machinery in

the factory. Employees are responsible for such property. The new brochure explains proper handling of company and government-owned property.

For copies of the brochure, contact Mary Merritt, ext 3171; Curtis Figler, ext 6713; or obtain copies from property management, located on the second floor of the Inventory Bldg, main plant.



**Robot vehicle tested**—The 8-wheel base for the autonomous land vehicle is demonstrated at the Waterton plant. The vehicle will be used to show advanced technologies for the strategic computing program—evaluating software, intelligent planners, and advanced computer architecture. May 1985 is the planned milestone demonstration date.