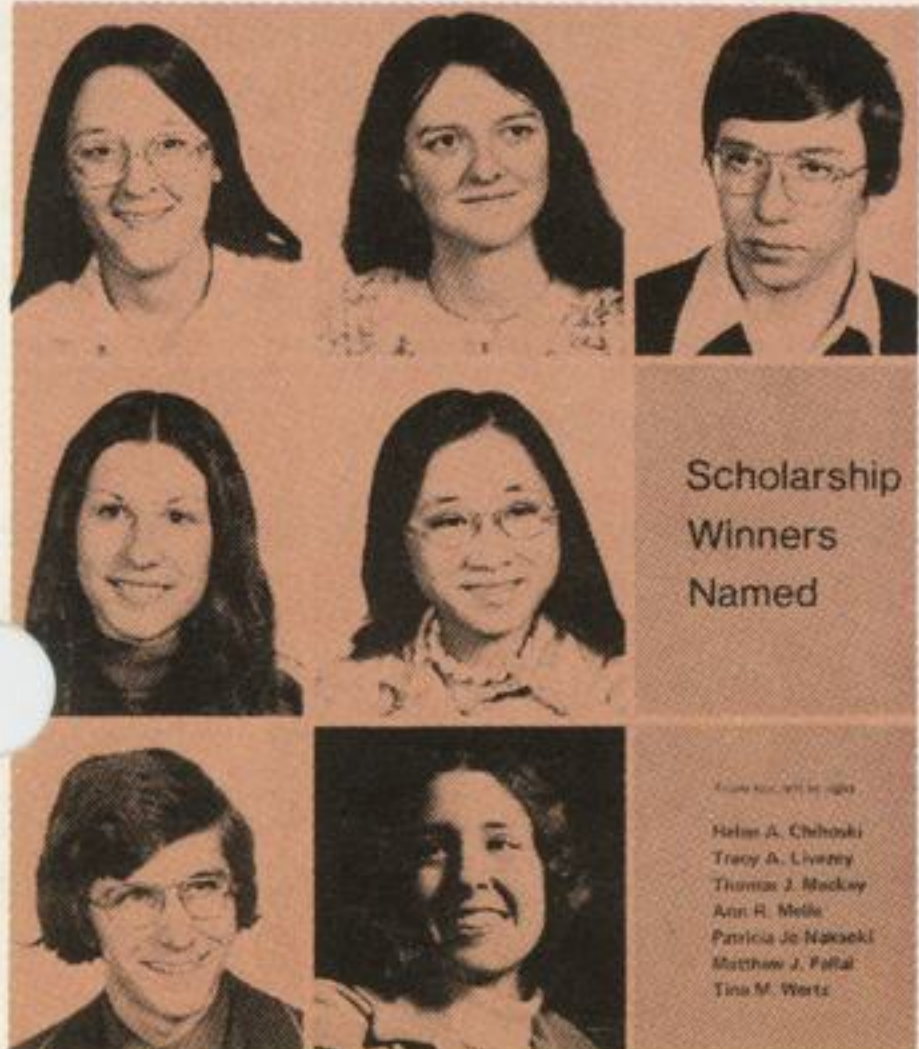
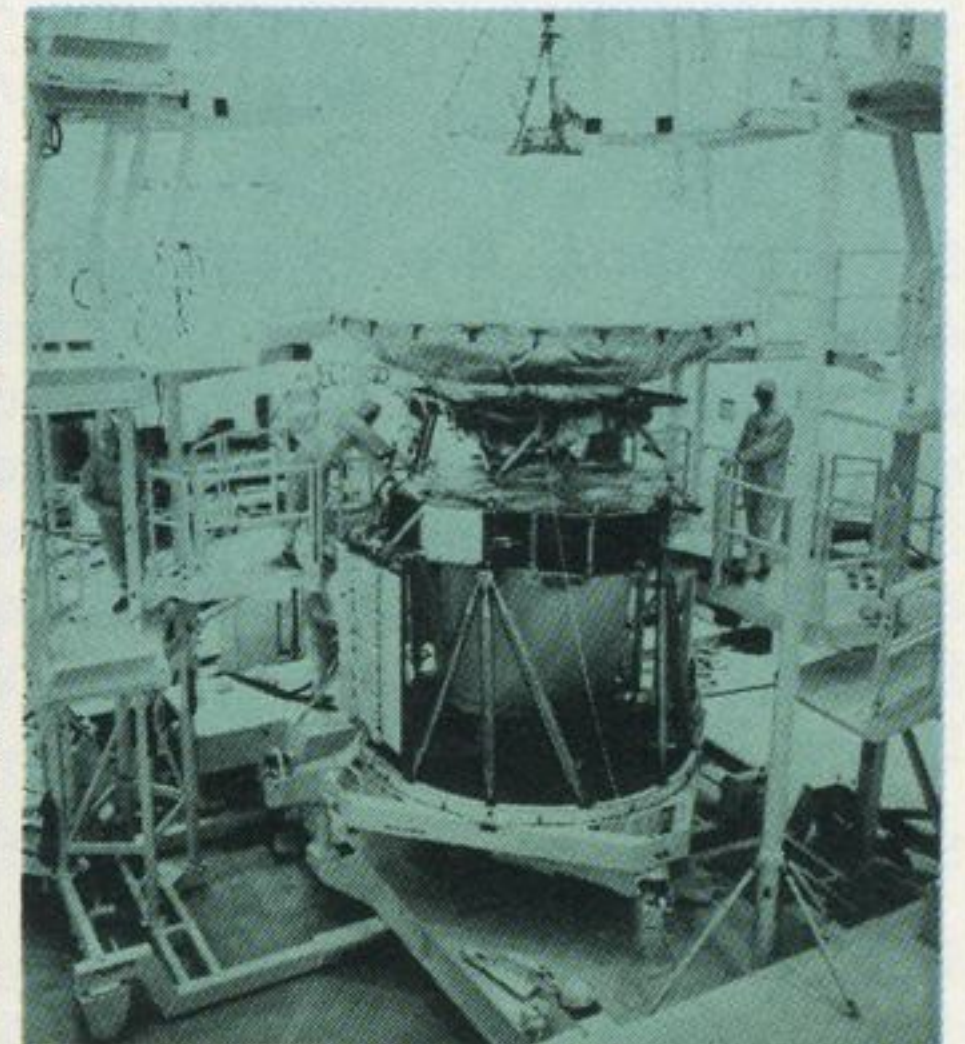
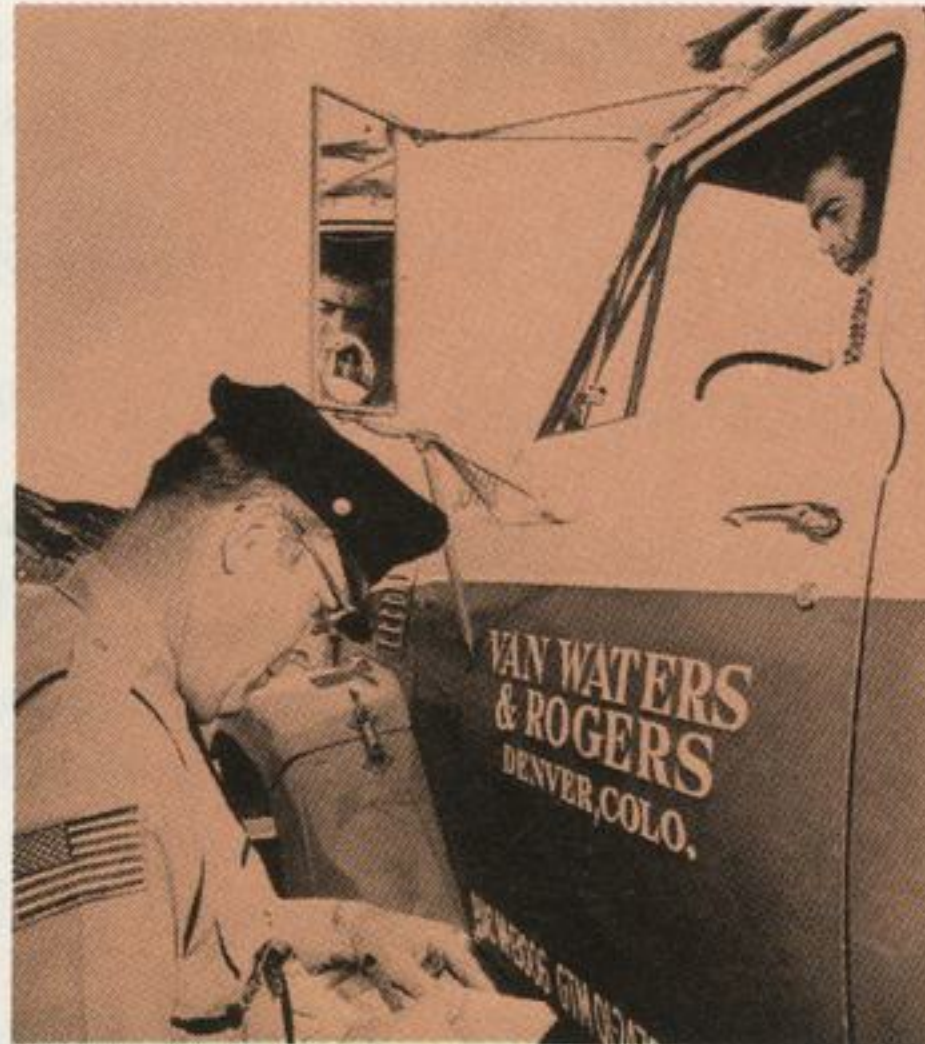
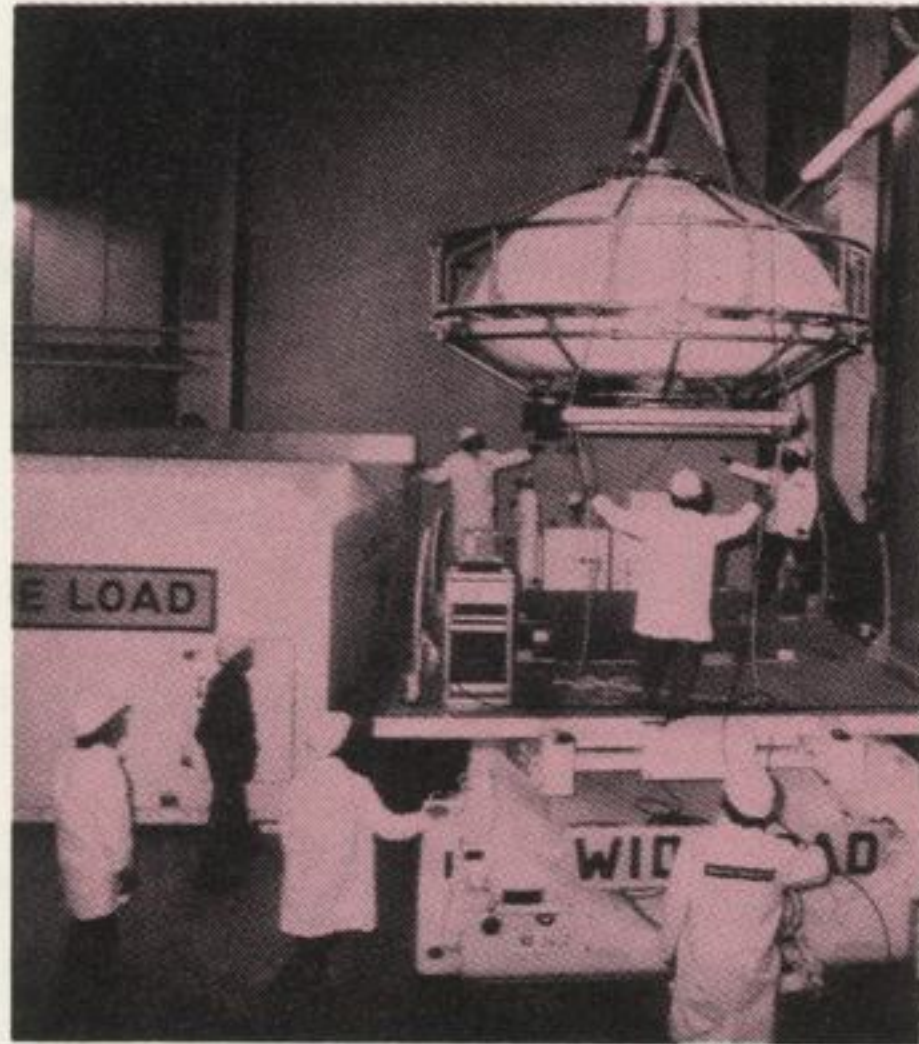


NUMBER 15/1975

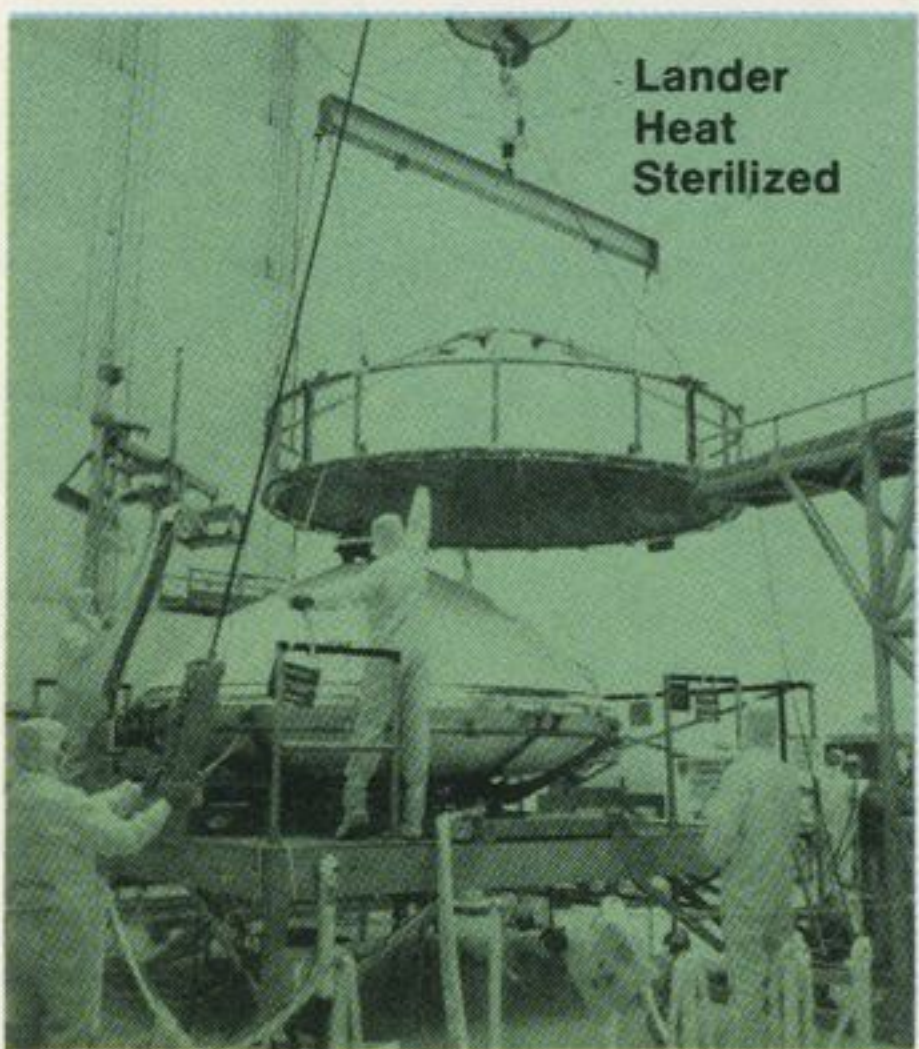
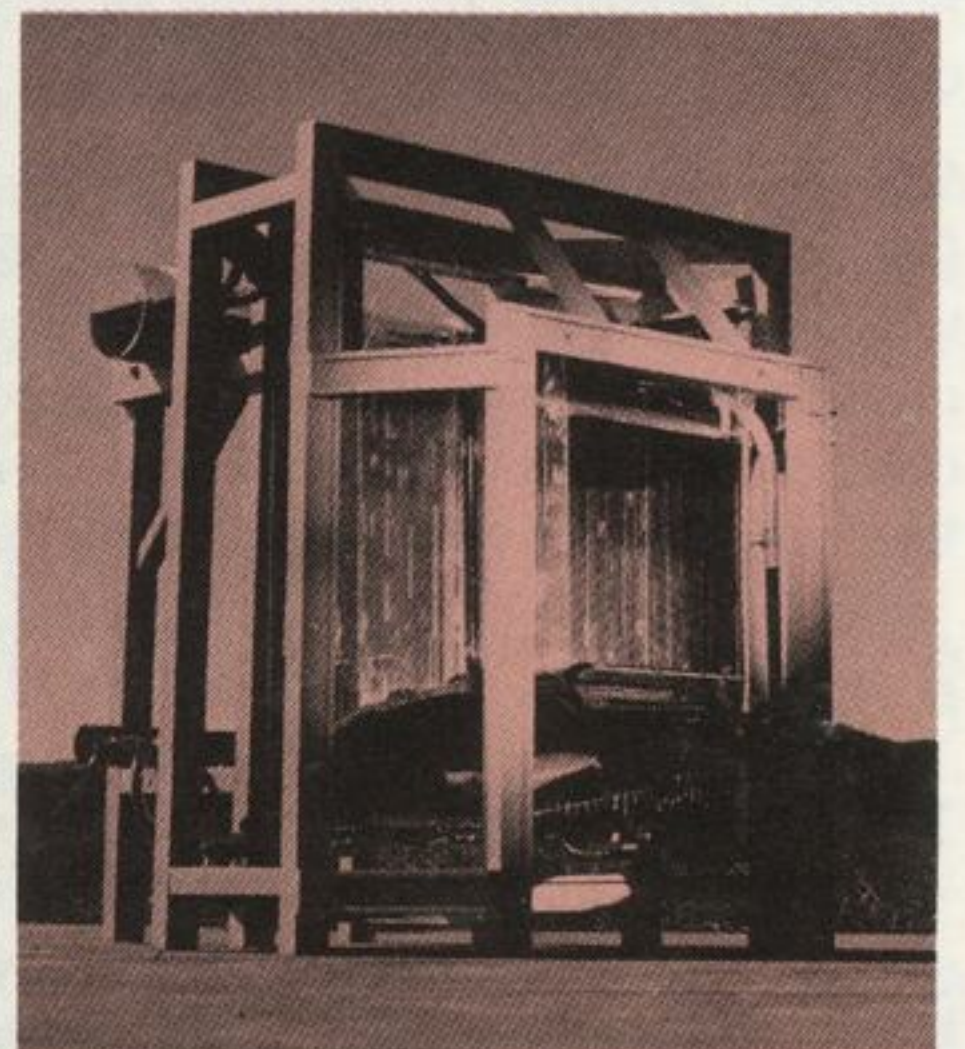
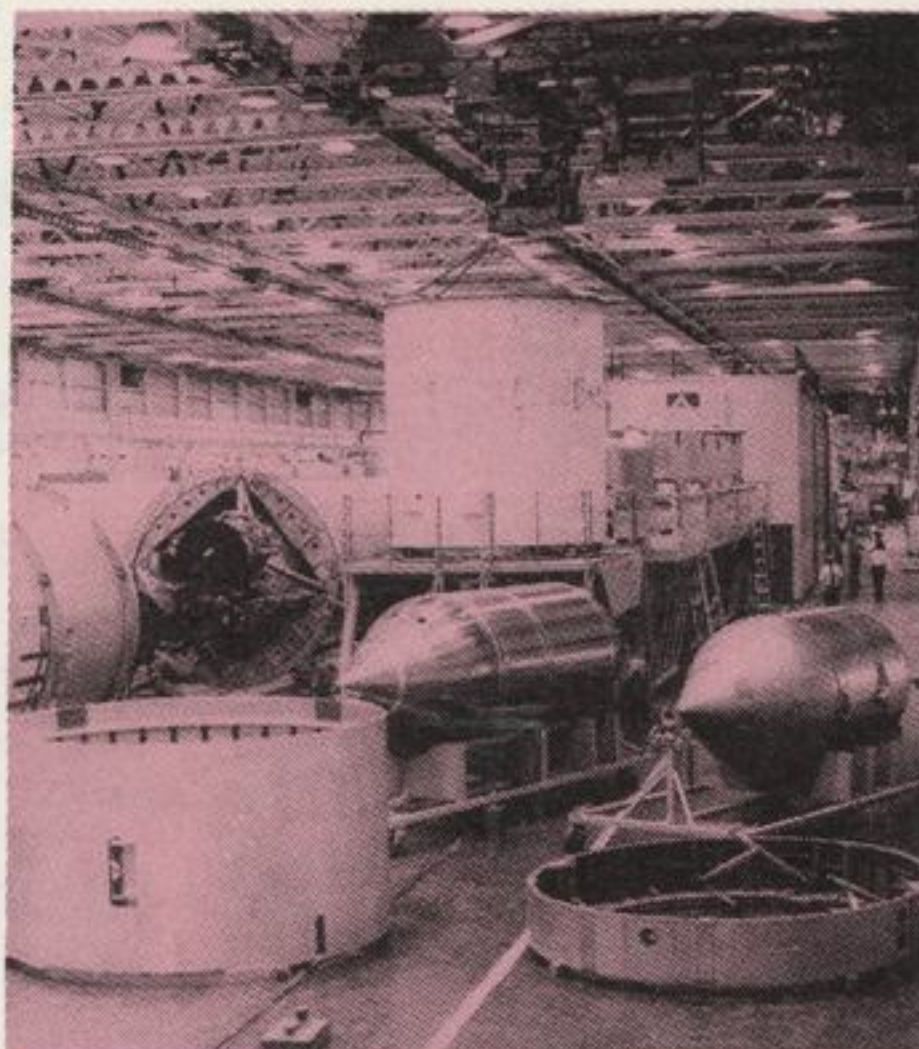


Scholarship
Winners
Named

- Robert A. Chisholm
- Tracy A. Livsey
- Thomas J. Mackay
- Ann R. Melle
- Patricia Jo Naskaeki
- Matthew J. Paffal
- Tina M. Wertz



Annual
Awards
Night



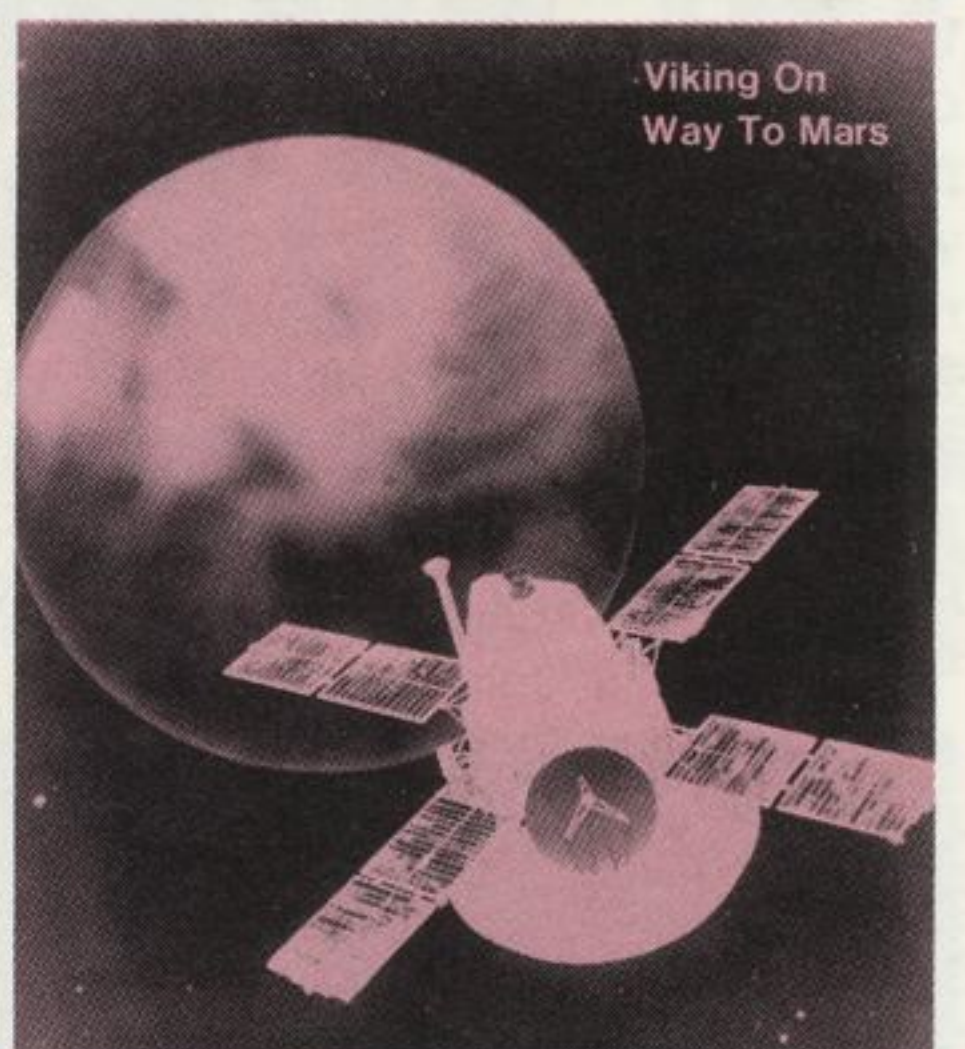
Lander
Heat
Sterilized



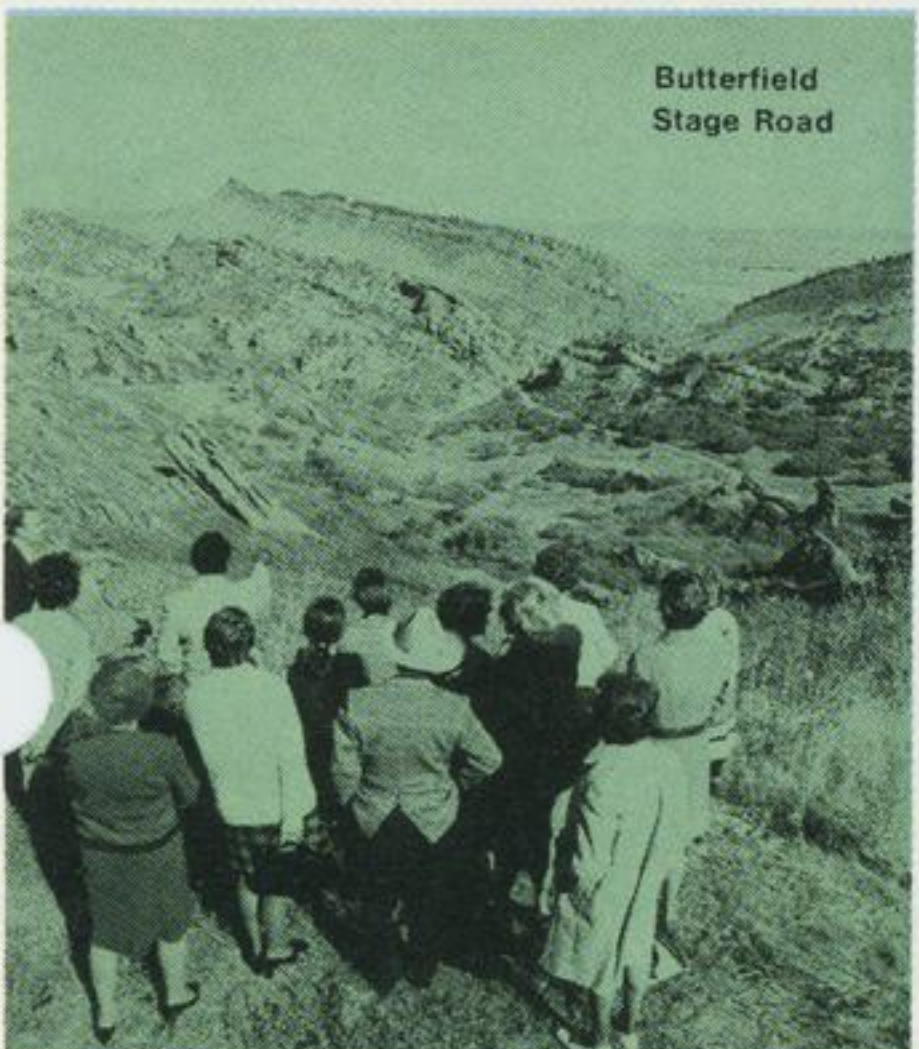
Air tanks
for Navy



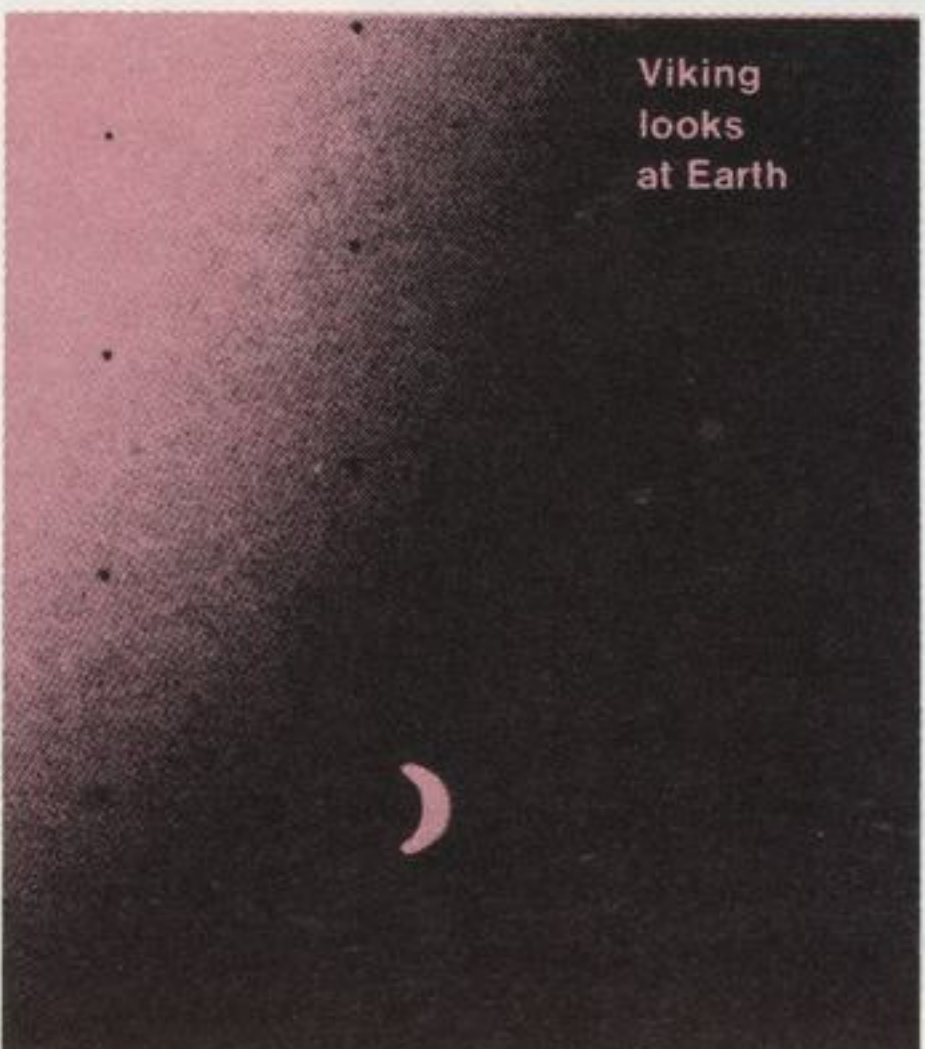
Destination:
MARS



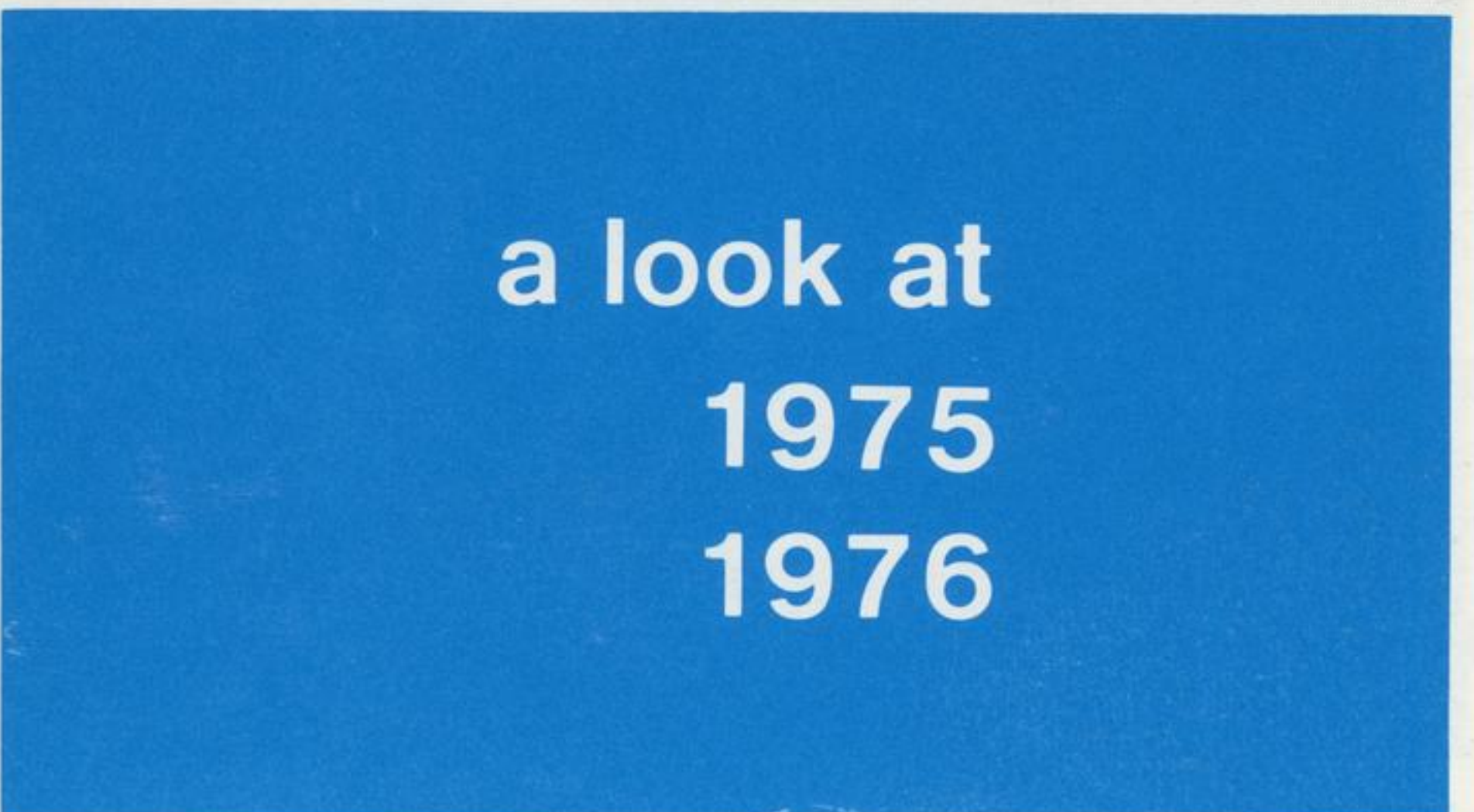
Viking On
Way To Mars



Butterfield
Stage Road



Viking
looks
at Earth



a look at
 1975
 1976

1976-A year of technical, economic challenge

1976—the bicentennial year has people, companies, and the nation creating programs and slogans.

For the Denver division, 1976 will be a year of "interesting technical challenges and difficult cost competition."

Sound familiar? It should. The division has been doing business under these conditions for many years.

So what is different about 1976? Not much—unless you count the number of competitors, look closely at the costs of doing business, and weigh the increasing impact of both. Nearly every aerospace company is bidding on each contract. Business costs are rising faster than ever before. The times are difficult.

So what will the division do?

Rest on our laurels? Give up?

Neither. Efforts to get new business will certainly continue.

Through more than 50 Independent Research and Development (IR&D) tasks we will be spending the division's own money to maintain, improve, or develop new technical skills. This will help meet the "interesting technical challenges."

And costs? The simple answer is, "Do more with less."

The problem there, is that sometimes the "less" costs more than it did even a year ago. A good example is the energy saving program—keeping thermostats lower in the winter and higher in the summer, cutting off air conditioning and other power consuming equipment on weekends. Savings in this program are roughly estimated at 30 percent. Great! Except power costs have gone up about the same amount. So, the power (gas and electricity) saved has just about kept the current spending equal to spending a year ago.

It is difficult to get ahead of the game that way. But, we will have to continue to save more and more energy even if it does just keep the expenditures at the same level.

Two words often heard in industry, not just now, but almost since the industrial revolution, are key to costs: Conservation and Productivity.

Conservation means simply to "protect from loss or from being used up."

Productivity is a measure of how well—or how much—we produce.

Increasing efforts in both can have a positive effect on the ability of the division to compete in the marketplace.

But what is there to compete for? Will there be any work in the division's traditional product areas in 1976?

Specifically, major focus will be on obtaining business in five areas:

Space Telescope (formerly Large Space Telescope—LST)

Space Shuttle Ground Support Systems Definition

Space Shuttle Interim Upper Stage

Missile X

Command Systems

The division is one of three firms working on phase B contracts for the Space Telescope. This contract will end about March 1976. A request for proposal for phase C/D—the design and development phase—is expected in late spring 1976 with contract award anticipated for late 1976 or early 1977.

The significant business aspect of Space Telescope is that it is the earliest large free flying payload associated with Space Shuttle. It will be put into orbit from the

Shuttle and left there, with Shuttle revisiting it.

The division had an early study contract for Space Shuttle ground operations analysis and now expects a request for proposal about January for another phase in this program—Ground Support Systems Definition (GSSD).

It will be an opportunity to "sell engineering" to define hardware needs for ground facilities at Vandenberg Air Force Base, center for operation of Space Shuttle orbiter from launch to return.

Contract award for GSSD is expected in the spring of 1976.

This work could evolve into a continuing support program.

Interim Upper Stage (IUS) is a solid rocket vehicle for which the request for proposal is expected in January. We will have 90 days in which to respond, with the contract to be awarded early fall of 1976.

Thiokol Chemical Corporation will be a team member for the proposal to supply the solid rocket motors.

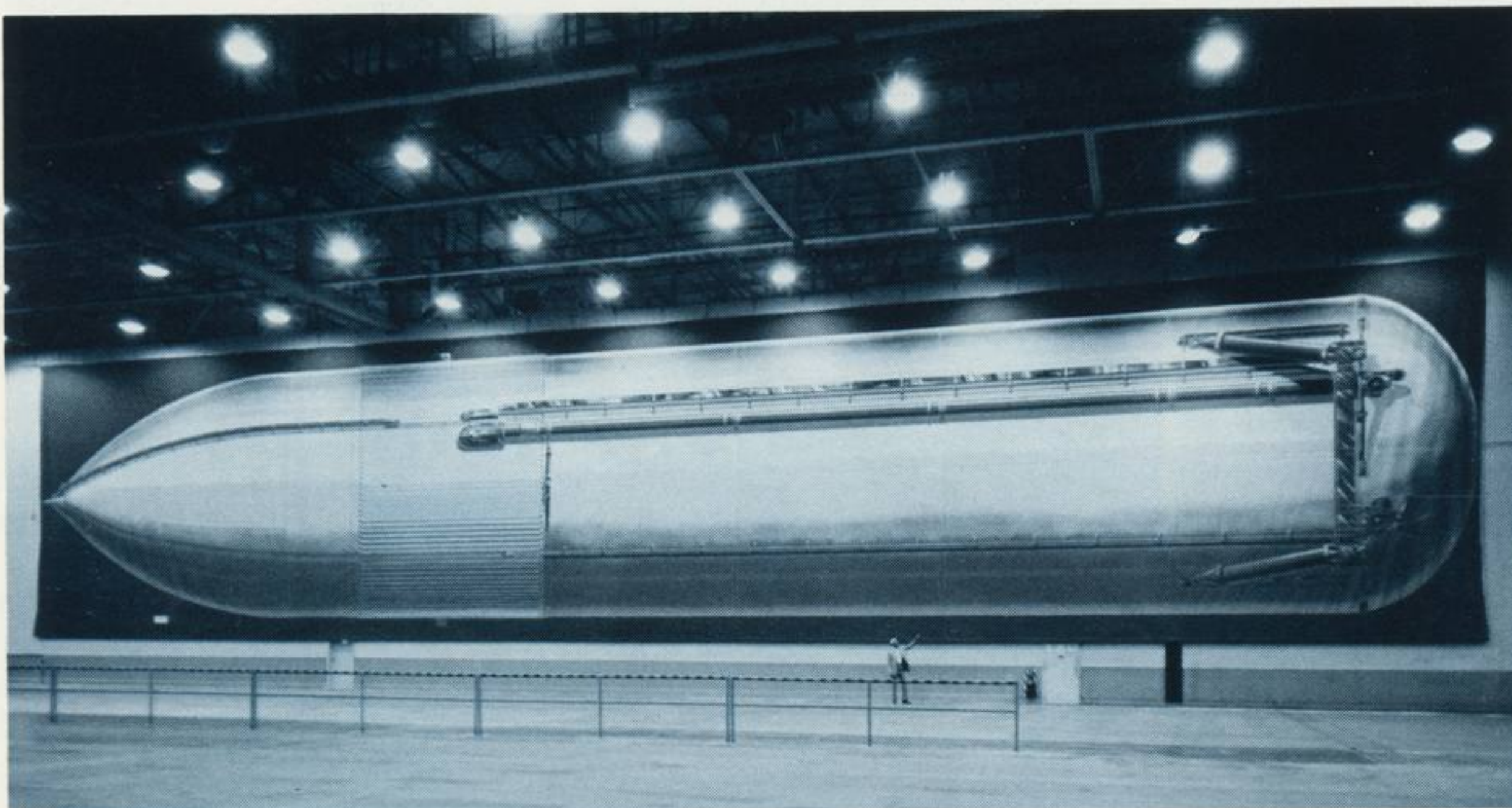
IUS will ultimately be used to take payloads from Space Shuttle's cargo bay to higher altitude orbits. These are orbits above the Space Shuttle orbit, 500-mile maximum and include synchronous orbits as well as moving payloads out of the Earth's gravitational field for planetary missions.

MX (missile X) is the designation for a new Air Force strategic offensive missile. Studies have been conducted on various deployment modes, including a ground mobile missile. A request for proposal is expected early in 1976 for a ground mobility prototype. The program will involve hardware and ground test of the prototype to demonstrate the concept of ground mobility.

The command systems area is a significant, major new thrust for the division. Several bids for work were submitted in 1975—including the one for a Tactical Flag Command System for the Navy—and efforts to gain business in this area in 1976 will be stepped up.

Specific proposals cannot be discussed, but generally fall into the area of command and control and include systems engineering, integration, and software development for a variety of customers.

Although these are five areas of business getting major emphasis, the aim of the division's marketing program is to achieve a balance of products and customers in the division's traditional products.



A full-scale painting of the External Tank at Michoud.

1975 was a tough year: Adams

Reflecting on J. Adams, division vice president and general manager, frowned slightly and said, "This was a tough year. I don't know any other way to describe it."

There were some extremely outstanding achievements during the year, Adams said, and cited among them the two successful Viking launches, continued Titan reliability, progress of Michoud on the Space Shuttle External Tank project, and the outstanding success of our Technical Operations/R&D product area in winning contracts.

"But, I can't call this a totally successful year," Adams added quickly. "Any time you reduce the number of employees by a thousand or more—all good people and good workers—because you don't have jobs for them, well . . . it just shows that we are in a tough business and are going through tough times."

This month, December, will see the end of such large-scale employment reductions, brought on by completion of the Viking and Skylab development programs, with rates dropping from the average of about 100 each month in 1975 to about 200 in the first six months of 1976.

FICA deductions to increase in 1976

An increase in the Federal Insurance Contributions Act (FICA) wage base in 1976 will increase amounts paid by both employees and Martin Marietta.

The combined FICA-Medicare taxable wage base will increase from \$14,100 to \$15,300 in 1976. The 5.85 percent tax rate is unchanged.

Assuming maximum base earnings, a comparison of the 1976 tax, \$895.05 (5.85% x \$15,300), with the 1975 tax, \$824.85 (5.85% x \$14,100), shows an increase of \$70.20, about 8.5 percent, in the deduction from employee pay. Martin Marietta will also pay an additional \$70.20 to match each employee's contribution.

W-4s up to date?

Employees should make sure the correct number of withholding allowances are being claimed on W-4 forms.

The Internal Revenue Service requires each employee to file a new W-4 within ten days when the number of allowances he is entitled to decreases.

Employees who need to change W-4 claims should contact departmental secretaries for information.

Division employment is down nearly 4,000 since mid-1973.

"We were successful in 1975 in reducing costs—highly successful," Adams said. "Continued cost reduction efforts in 1976 will keep us lean and trim and competitive. This is essential if we are to win new contracts in today's highly competitive environment.

"I am convinced that we have the best people in the business. I'm very proud of what they did in 1975. With pressures from all sides, they did their jobs well, kept our quality up, cut costs, and often worked around the clock in efforts to satisfy customers and to get new business," Adams said. "To all of them I am grateful."

In 1975, 98 percent of the division's income was from government contracts; two percent came from other sources. The colors on the calendar show how this income was divided to meet the division's obligations.

Earnings, the green days, were equal to only eight days' income. Earnings (profit) are used to pay shareowners for the use of their money, for growth, expansion, and other capital needs, like adding new equipment or modifying facilities to make us more competitive. That's why everyone must



While 1976 may be a better year than 1975 in some ways, it will not be a "business as usual" year when compared with five or even seven years ago.

Adams urged that employees who have suggestions for improving productivity and reducing costs pass the ideas along to their supervisors.

For 1976, Adams suggests, each employee should say to himself, "I have a job and I am going to keep it by doing better work in less time, by conserving every resource—time, money, material—that I can, and I am going to keep the quality of my work at its highest."

Adams added, "With that attitude we will get more business, keep costs down, be successful—and we will have jobs."

HELP MAKE THE GREEN DAYS GROW

All income for 125 days was required for salaries and wages for employees.

Every penny we took in for 91 days went back to our suppliers for goods, utilities, transportation, and services.

We spent all our income for 21 days to pay taxes to local, state, and federal governments.

Pensions, insurance, and debt service took the income from 16 days.

Earnings (profit) were equal to just eight days' income.

Facility improvements increase capabilities

Major improvements in division facilities in 1975 were made to help reduce costs, increase technological and production capabilities, and improve waste treatment.

Improvements in 1976 will have basically the same objectives.

The new tertiary waste treatment plant is a first in industry in Colorado and one of only two such plants in the state. The other is a Colorado Springs municipal facility.

The division's treatment plant went into operation this year, discharging "crystal clear" water into the South Platte and the Chatfield Dam and Recreation area. The discharged water, in some ways, has fewer impurities than the water originally taken from water mains.

Major cost savings will come from a new building automation and surveillance system. The system, started in August, with the first phase to be completed in April 1976 and another phase scheduled for later in 1976, can remotely monitor and control water, steam, gas, and electricity use in division buildings and facilities.

The system can detect problems when they occur so correction can be made immediately.

Cost savings can come in several ways. For example, air conditioning which is now shut off and turned on manually on weekends by people going from building to building can be turned off and on by one person at one location, thus reducing power use for longer periods.

To be added in 1976 are devices to remotely control lights and machinery, eliminating time controls. An employee can simply call the controller, request lights in the area in which he is working, and have them turned on immediately. Lights will remain on only as long as needed.

A smaller scale installation made in 1975 will also save energy and money. A steam line was run from the main boiler room to the X-ray facility, eliminating the need to burn fuel at the X-ray facility. The new setup will save fuel, be more efficient, and require less maintenance.

To cut other maintenance costs, offices have been removed from the second floor factory balcony.

Other space vacated includes the first three bays at GPL and the administrative complex building.

Facilities and equipment added in 1975 to improve and advance technological capabilities include an electronic warfare

systems evaluator, a high energy chemical laser facility, solar power program test facility, emergency generator at SSL to assure continuous power for the solar vacuum chamber, equipment for the computer software systems development department, and a biaxial test fixture.

Manufacturing capability improved with addition of two milling machines, a heat treat furnace, and a production filament winding machine.

Capital expenditures planned in 1976 include similar kinds of purchases, with more than half the capital funds earmarked to support business opportunities and business growth.

Reduced overhead, reduced prices for division products, customers

Overhead expense is an often discussed subject in the division.

And well it should be. Overhead makes up more than 50 percent of the price our customers must pay for our products. Reduced overhead means reduced prices, or prices that at least hold the line on customer costs.

In today's market place, our customers are price conscious while still demanding the highest quality product.

There are five categories of overhead expenses in the division: *operating*, which includes wages and salaries; *fringes* (employee benefits like pension, insurance, vacation, and holidays); *use and occupancy*, including taxes and utilities; *allocations* (to help pay Corporate headquarters expenses, for example); and *new business acquisition*.

Of these five, *operating* expense and *fringes* account for one-half the total overhead cost. And these are almost totally people-related costs: 75 percent of operating expense is for employee pay; 100 percent of the fringe expense benefits employees. Of the remaining 25 percent of operating expense, a good part also "follows people"—office supplies of about \$250 per employee per year, for example.

With the "people costs" looming so large in overhead expense, there is little wonder the most effective way to reduce overhead is to reduce the number of people on the payroll.

When we fail to win a contract we had counted on in budgeting our overhead, we must reduce overhead expenses to stabilize costs on contracts we do have. Unfortunately again, the most effective way to get the costs down is to reduce the number of people on the payroll.

This is more than an investment in equipment and facilities; it is an investment in jobs for employees. Without the updating of equipment and facilities and the maintenance of what we have, the division will not be able to compete for new business or get follow-on contracts for the business we now have.

MARTIN MARIETTA NEWS

Published by Public Relations

MARTIN MARIETTA AEROSPACE

Denver Division

P.O. Box 179

Denver, Colorado 80201

December 1975

Looking at the makeup of the other overhead expense categories and opportunities to reduce them substantiates this approach.

Use and occupancy expense does have controllable items: light, heat, power. But one major item in this category is almost impossible to control: taxes. Despite exceptional efforts to control use of electricity, gas, and other fuels, these expenses are not going down. As reported elsewhere in this issue, usage was reduced about 30 percent in 1975, but suppliers' increased prices offset this saving.

Allocations are those expenses of the Corporation which the Denver division shares with other parts of Martin Marietta. Headquarters offices have no way to earn money directly through the sale or manufacture of products. The offices do have expenses and we pay our share.

New business acquisition expense (NBAE) is an area where reductions may be more a penalty than a benefit. This is money the division spends to get new business—the expense of preparing proposals, for example. A reduction in these resources means we have less to spend on proposals. If we bid on fewer jobs it just follows we get less business.

Major efforts in 1975 were successful in holding overhead expense at a stable level. To just stay even, these efforts will have to continue in 1976. Here are some areas where expenses were cut in 1975 and will be reduced again in 1976:

Seminars and symposiums; training costs; travel; office supplies; vehicles; telephone expense; factory supplies and small tool expenses; major repair, maintenance, service contracts, and rearrangement costs; dues and subscriptions; utilities; award programs; displays; and exhibits.