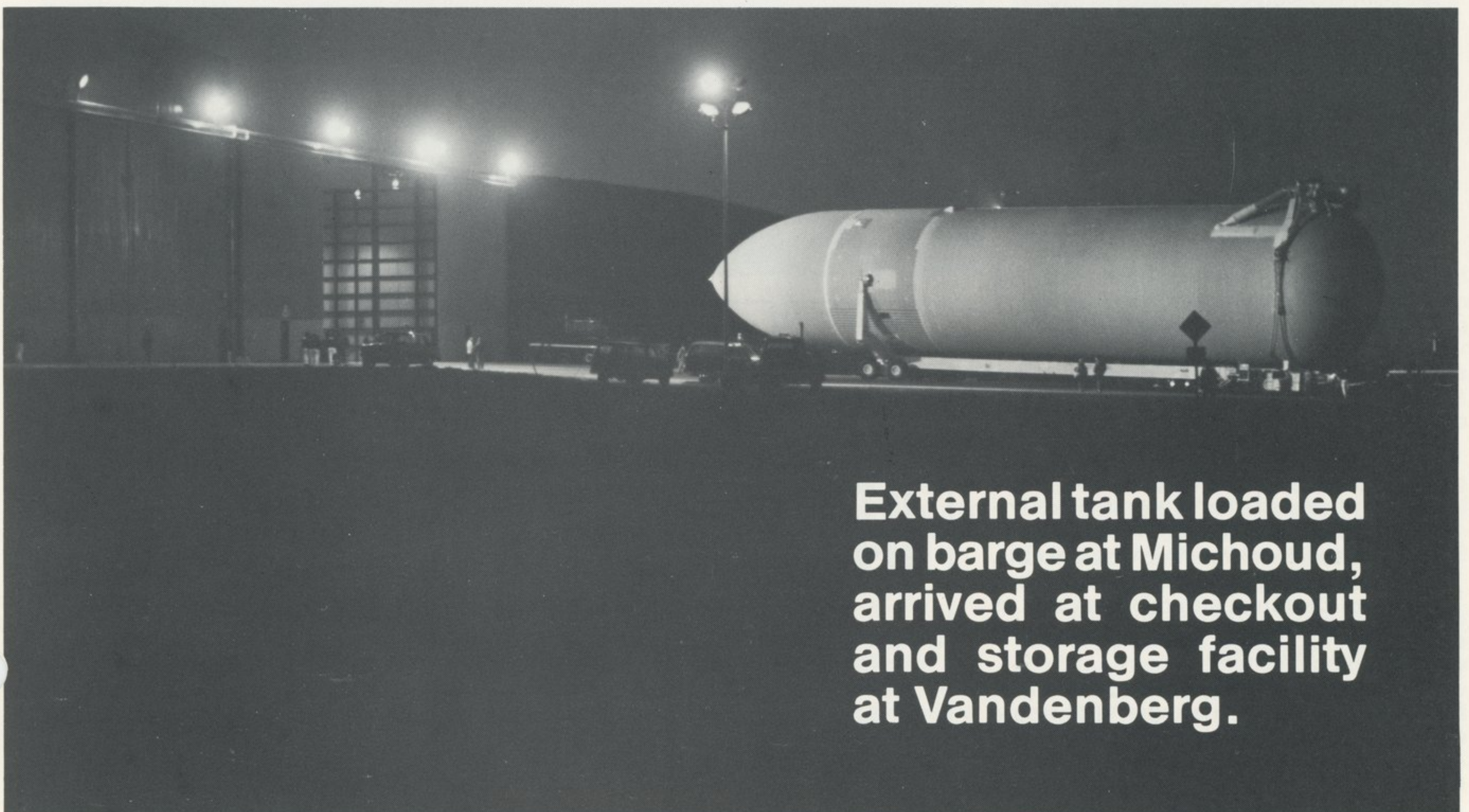
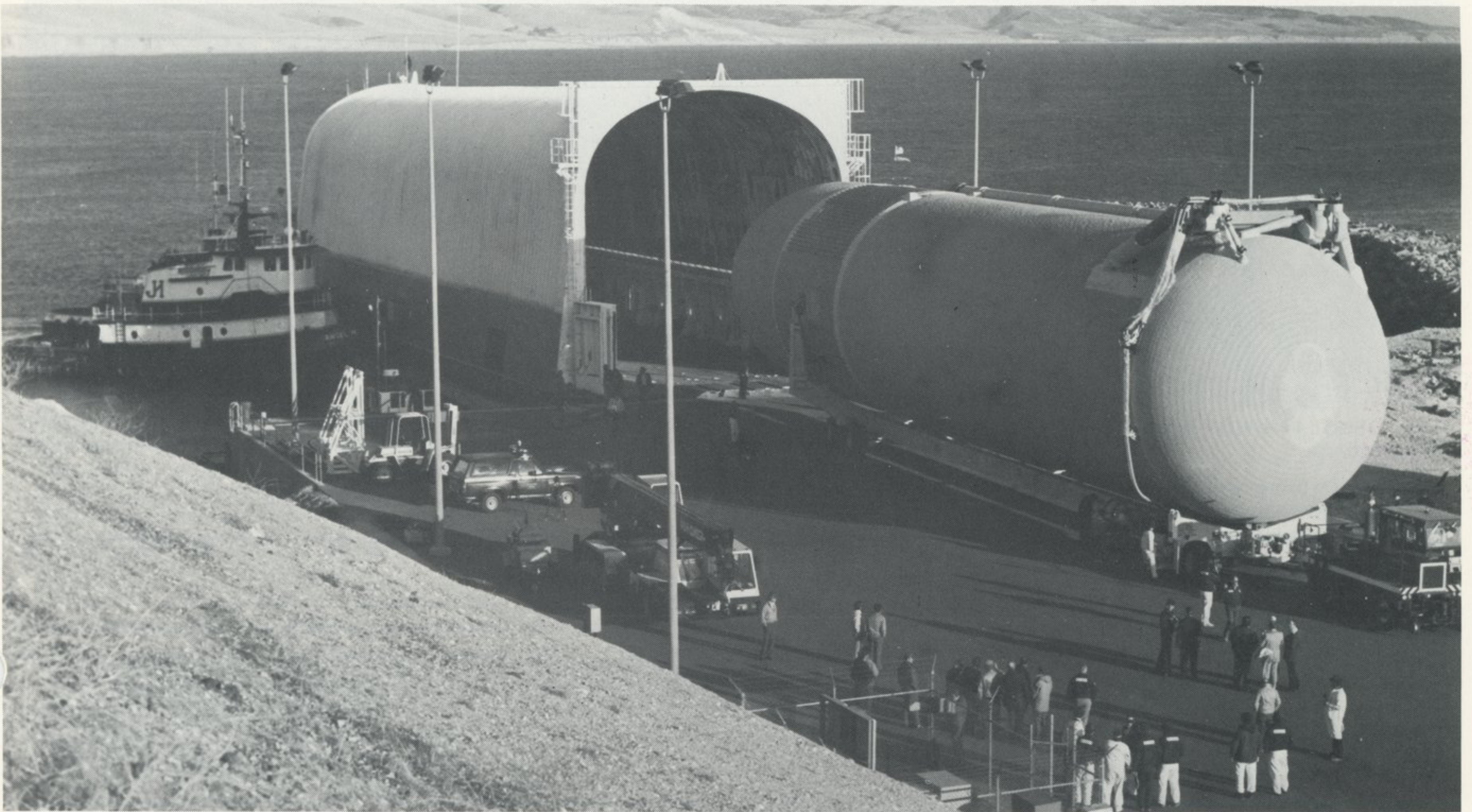


Number 23/1984



External tank loaded on barge at Michoud, arrived at checkout and storage facility at Vandenberg.

Major personnel shifts to benefit launch systems projects

Several major personnel shifts have been made "to place increased management attention on the wide variety of launch systems projects currently underway at Denver Aerospace."

That Oct. 17 announcement from Norman R. Augustine, company president, and Peter B. Teets, vice president and general manager of the strategic and launch systems division, included appointment of Richard E. Brackeen as deputy general manager for launch systems in the division.



Brackeen had been the company's vice president for business development since 1982, and his responsibilities included program development and marketing for current and potential new business areas, strategic business planning and protocol.

Gareth D. Flora will become director of business development for the company, reporting to Augustine, and will assume the full span of authority and responsibility previously held by Brackeen. Flora had been proposal manager since January of this year for the Titan Centaur proposal for the Air Force. Before that he had led Martin Marietta's proposal activity for the Titan III commercial launch vehicle.

In related moves, Douglas D. Hart has been transferred to Denver from the Michoud division — where he was director of program development and advanced programs — to become director of business development for the space systems division.



Hart is succeeded at Michoud by Frank L. Williams who also will retain his current responsibility for advanced programs. His new assignment emphasizes identification and acquisition of new business for Martin Marietta.

Hart is succeeded at Michoud by Frank L. Williams who also will retain his current responsibility for advanced programs. His new assignment emphasizes identification and acquisition of new business for Martin Marietta.

Recreation representative named at LSC

Melinda Boyle, the new volunteer recreation representative at the Littleton Systems Center (LSC) facility, is the person to contact there for discounted movie tickets, bus tokens, discount cards for Florida and Southern California attractions as well as other items offered through the company's recreation department.

Her office hours are daily from 2-4 p.m. only in room 201, ext. 201. Visitors are advised to enter through the personnel lobby at LSC, go south to the stairway and up stairs to the Equal Employment Opportunity (EEO) office.



Maj. Gen. Aloysius G. Casey, commander of the Air Force System Command's Ballistic Missile Office (inset), had words of high praise for the professionalism of Martin Marietta personnel engaged in the Peacekeeper program. The occasion was an address and presentation ceremony, hosted by Norman R. Augustine, Denver Aerospace president, and Peter B. Teets, vice president and general manager of strategic and launch systems. The event was held last week in the main plant factory at Waterton for persons involved in the Peacekeeper program. The general is responsible for managing the research, design, development and acquisition of Defense Department ballistic missile programs, including Peacekeeper. The event came on the heels of the sixth successful Peacekeeper test flight from California's Vandenberg Air Force Base, Oct. 1.

Pownall urges employees to vote Nov. 6

Dear fellow employees.

By every measure of attainment, the United States is the largest society in the world based on the dignity and freedom of the individual. There are no limits to an individual's rise in intellectual and material achievement.

Democracy is constantly tested, both from within and without, as to its sustaining power. Choices are possible and our electoral process, at local, state and federal levels, offers us the ability to participate in shaping our future and that of our descendants. It is, therefore, of utmost importance that all informed Americans take part in one of the key elements that secure our democratic society — voting. In this spirit, I urge you to exercise your right to vote, as a concerned and involved citizen.

Unfortunately, statistics show that only 50 percent or less of our eligible voters actually go to the polls. In the past several years, our Martin Marietta ranks have grown to approximately 62,000 people employed in virtually every state of the Union.

I encourage you to vote in November for the candidates of your choice. By doing so, you will be preserving the rights and freedoms on which the American Republic stands.

Thomas G. Pownall
Chairman and Chief Executive Officer
Martin Marietta Corporation

MARTIN MARIETTA

GET INVOLVED IN YOUR COUNTRY. VOTE!

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

October 26, 1984

Bighorn sheep habitat burn a qualified 'success;' details next spring

The controlled burn set Thursday, Oct. 11 on 200 acres near the entrance to Waterton Canyon to improve the habitat for the Rocky Mountain bighorn sheep in that area, has been termed a qualified success.

Skip Underwood of the U.S. Forest Service said the burn was indeed "successful, but maybe not quite as much so as we'd hoped. And the burn naturally was one of our main objectives — that is to kill off the oakbrush. We killed off some of the patches, but the fire didn't burn hot enough to kill some others. We probably won't know just how successful we were on that objective until next spring when the growing season starts again."

Denver Aerospace cooperated with the Forest Service, the Bureau of Land Management, the Denver Water Board, the Colorado State Forest Service, Colorado Division of Wildlife, and the Rocky Mountain Bighorn Sheep Society in the experimental program. Staging area for the burn was on company property behind the Inventory Bldg.

Underwood, district ranger, South Platte Ranger District for Pike National Forest, added emphatically, however, the burn did, indeed, accomplish two other major objectives of the burn program plan.



"The inter-agency cooperation was highly successful — having state, federal, private and volunteer involvement in the conduct of the burn. And we learned a great deal about fire behavior in burning oak brush.

We took a number of readings throughout various phases of the burn and consequently learned a great deal that we can put to use in the future."

The controlled burn was the culmination of three years of effort to improve the bighorn's natural habitat on the 5057-acre site at Waterton that earned Martin Marietta an award from the Rocky Mountain Big Horn Sheep Society last year. Denver Aerospace volunteers had cleared more than 30 acres for the remaining 15 to 18 majestic animals who survived a 1980 pneumonia epidemic that killed almost 80 percent of the herd. That effort did result in improved grazing and lambing areas, greater accessibility to water, and some improved protection from predators. That manual effort, however, was not great enough.

To avoid predation, bighorn sheep need open areas for foraging, free from dense undergrowth and brush. Key areas of the bighorn's canyon habitat had become covered with oakbrush and other vegetation, increasing the danger of attack by predators. Removal of oakbrush, conifers and other impediments to the safety of the herd by conventional means has proven time consuming and costly. But the newly-developed techniques of burning off specified areas of brush by using a "helitorch" (a drip-torch-equipped helicopter), proven effective in similar situations, was used.

Range management experts point out use of fire to remove overgrown vegetation and stimulate forage production is a simulation of natural processes. Normally, lightning-caused fires clear land of over-abundant growth. In areas such as South Platte Canyon, naturally caused fires are quickly extinguished, resulting in an unnatural growth of vegetation.

A complete habitat management plan extending to 1989 envisions periodic controlled fires in areas needed by the bighorn sheep herd.

Counsel's Corner

Fraud, waste and abuse more than mischarging

When the phrase "fraud, waste and abuse" is used, we have found that one normally thinks of "mischarging." From a review of the cases which already have been reported in various legal periodicals and the press, however, we have seen that there are many activities which could form the basis of a prosecutor's charge of fraud, waste and abuse. Some of those activities may be viewed as seemingly inconsequential items, but they are nevertheless federal criminal offenses. The following is a list of some violations which could occur in dealing with daily matters:

- Gratuities to, and improper entertainment of government officials;
- Obtaining or receiving advance procurement information from government officials;
- Commercial use of items brought into the country under U.S. Customs duty free entry status;
- False statements in support of progress payment requests; false welding certifications; false quantity count statements; false travel vouchers and expense reports; false DD-250s (inspection and acceptance document for the customer); false statements regarding make or buy program planning; and false inspections certificates;
- Supplying improperly or inadequately tested items;
- Substitution of used for new priced items;
- Non-disclosure of use of government furnished property (GFP) or government-furnished equipment (GFE) for commercial purposes;
- Violation of anti-boycott and anti-trust laws; violations of environmental and waste disposal requirements; violations of record keeping and reporting of incidents; violations of the Foreign Corrupt Practices Act, including offering bribes to foreign officials, and accounting and record keeping violations;
- Mischarging, including inflation of hours worked, charging one contract to another, and charging direct to overhead;
- Defective pricing and deliberate overpricing;
- Destruction of records during investigations of improper activity.

Although far from a comprehensive listing, the above does indicate the wide range of activities which could lead to charges against the Corporation and its employees.

Jacques H. Croom
Aerospace General Counsel

Michael A. Steuer
Chief Counsel
Martin Marietta Denver Aerospace

Car-pools at main plant must be re-certified

All car-pools at Denver Aerospace's main plant must be re-certified by Nov. 30.

The current blue-circle sticker will be replaced by a car-pool registration card which will be valid for six months. Each car-pool will receive a single card that should be displayed visibly on the dashboard when the vehicle is parked in the Share-the-Ride area. For those car-poolers who alternate driving responsibilities, the card must be passed from one driver to the next.

Lori Sharp, employee service coordinator, will be available from 10:30 a.m. to 12:30 p.m., Wednesday, Nov. 7 at the south entrance to the first floor Engineering Bldg cafeteria and in the Space Support Bldg (SSB) lobby at those same times Thursday, Nov. 8. She can assist with re-certifying car-pools and in forming new ones as well as provide Regional Transportation District (RTD) bus information.

Personnel at all other locations can obtain car-pool matching applications from the recreation/employee services racks throughout the company.

Completed forms should be returned to the Share-the-Ride office, mail stop 1321. Information is then processed through the Denver Regional Council of Government's (DRCOG) computer for car-pool matching. Within 10 to 12 days the employee will receive a list of potential car-poolers to make the contract.

Winterizing tips

Second big blow of 1984 hints at future

Last week's blizzard, resulting in closure of the Waterton plant Tuesday, was the second biggie of the still young fall/winter of 1984. The first came Friday, Sept. 28 — and that followed lighter, but messy precipitation the first day of autumn, Friday, Sept. 21. It all portends a mean 1984-85 winter.

However, precautions taken now can forestall motoring problems the rest of the winter. Among the many practical suggestions contained in the state's driver's manual are the following winterizing tips:

—Automobile radiators, batteries, heaters, defoggers, windshield wipers, tires, and brakes should all be maintained in good working order;

—“Survival gear” — shovels, blankets, tow straps, first-aid kits, flashlights and batteries,

and flares — should be carried at all times for motor vehicle emergencies.

Also, caution and common sense while at work, such as parking and walking only in designated areas, also can prevent accidents and injuries. Slip-on boots are recommended against icy pavement. Open-toed shoes invite frostbite and broken toes.

Should extreme winter weather again force the company to close its Denver facilities, employees will be notified by emergency announcements on eight local radio stations. The following stations will broadcast closing notices:

KLZ 56 AM, KHOW 63 AM, KOA 85 AM, KIMN 95 AM, KDEN 1300 AM, KYGO 98 FM, KOAQ 103 FM, KAZY 106.7 FM.

Employee communication survey implementation team members identified

(Editor's note — This is the second follow-up article on the recent company-wide employee communications survey for salaried personnel. Other follow-up reports will appear in future Martin Marietta News issues as developments warrant.)

Implementation teams are orchestrating all activity connected with the recent company-wide employee communication survey of salaried personnel. That team is under the leadership of Kenneth P. Timmons, until recently vice president at Michoud.

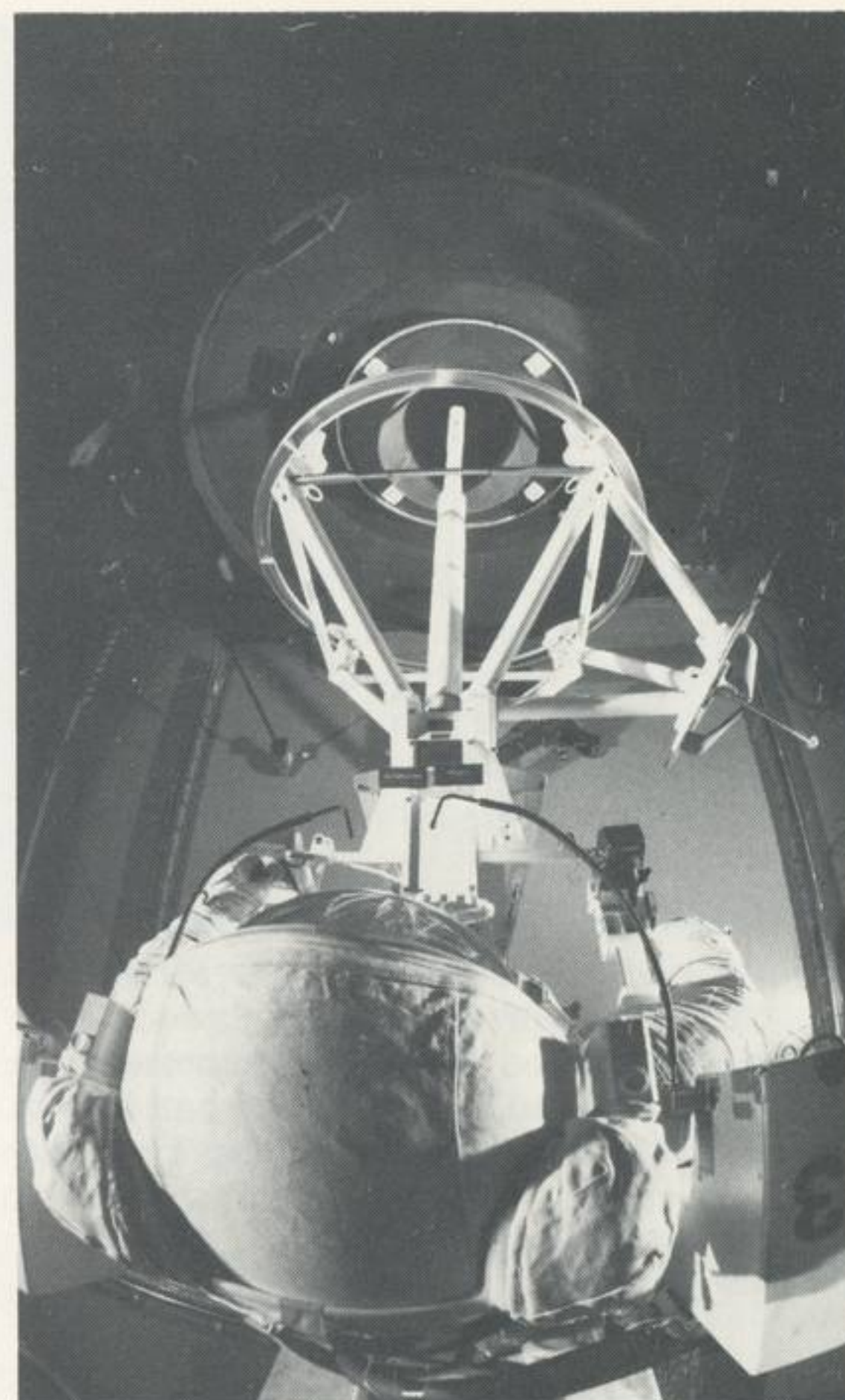
Timmons' broad-based team is made up of:

Alan L. Shaeffe, Greenwood Plaza; Joseph C. Spencer, Denver Systems Center (DSC); Felix J. Scheffler, Vandenberg and Canaveral; James R. Weston, Littleton Systems Center (LSC); William F. Barrett, Michoud; James W. McAnally, Space Support North (SSN) Building; Carol North, William Curra, George McCone, C. E. Carnahan, Dennis F. Cook, Nancy Pendelton, Rich VandeKoppel, Cliff Kronauer, Dewey Reinhard, and Robert Snodgrass, all Waterton; Ron Slovikoski and Warren Beery, Academy Park.

September PSP unit values set

Unit values for the Performance Sharing Plan (PSP) as of Sept. 30, 1984 (with August's figures in parentheses for comparison) were:

- FUND A (indexed equity)
2.3935115699 (2.3867578850);
- FUND B (fixed income)
1.9817707784 (1.9633488251);
- FUND C (Martin Marietta stock fund) 2.4642067183
(2.5711698493);
- FUND D (TRASOP)
0.9726995394 (1.0138633549).



This unusual photo angle gives something of the same view astronaut Joseph P. Allen sees while practicing rescue maneuvers in the space operations simulation (SOS) laboratory at Denver Aerospace's Waterton plant. Allen and fellow mission specialist Dale A. Gardner have been practicing the techniques preparing for the upcoming retrieval next month of two communications satellites from space. The space shuttle mission is currently scheduled for launch Nov. 7, and the first extra-vehicular activity (EVA) using the Martin Marietta-designed and -built manned maneuvering unit (MMU) should be Nov. 11. On that third use of an MMU in space in less than ten months, astronauts will attempt to capture Indonesia's Palapa B-2 communications satellite which failed to achieve proper orbit during last February's mission when booster engines failed. A second EVA is planned Nov. 13 for retrieval of Westar 6 which encountered similar problems on that earlier mission. Next month's mission will mark the first time previously deployed communications satellites will be returned to Earth for repairs. The mission also marks the first EVA for a commercial user by NASA space shuttle astronauts.

Correction

The article in the last issue of *Martin Marietta News* (#22/1984 of Oct. 12) on the company's third quarter business status contained two errors in figures. The backlog of \$3.361 billion as of Sept. 30 should have been compared to a backlog of \$3.7 billion for last quarter instead of \$2.8 billion. Also new, growth and follow-on orders for this year's first three quarters totaled \$1.914 billion (instead of \$1.344 billion).

On the cover

First space shuttle external tank arrives at western launch site

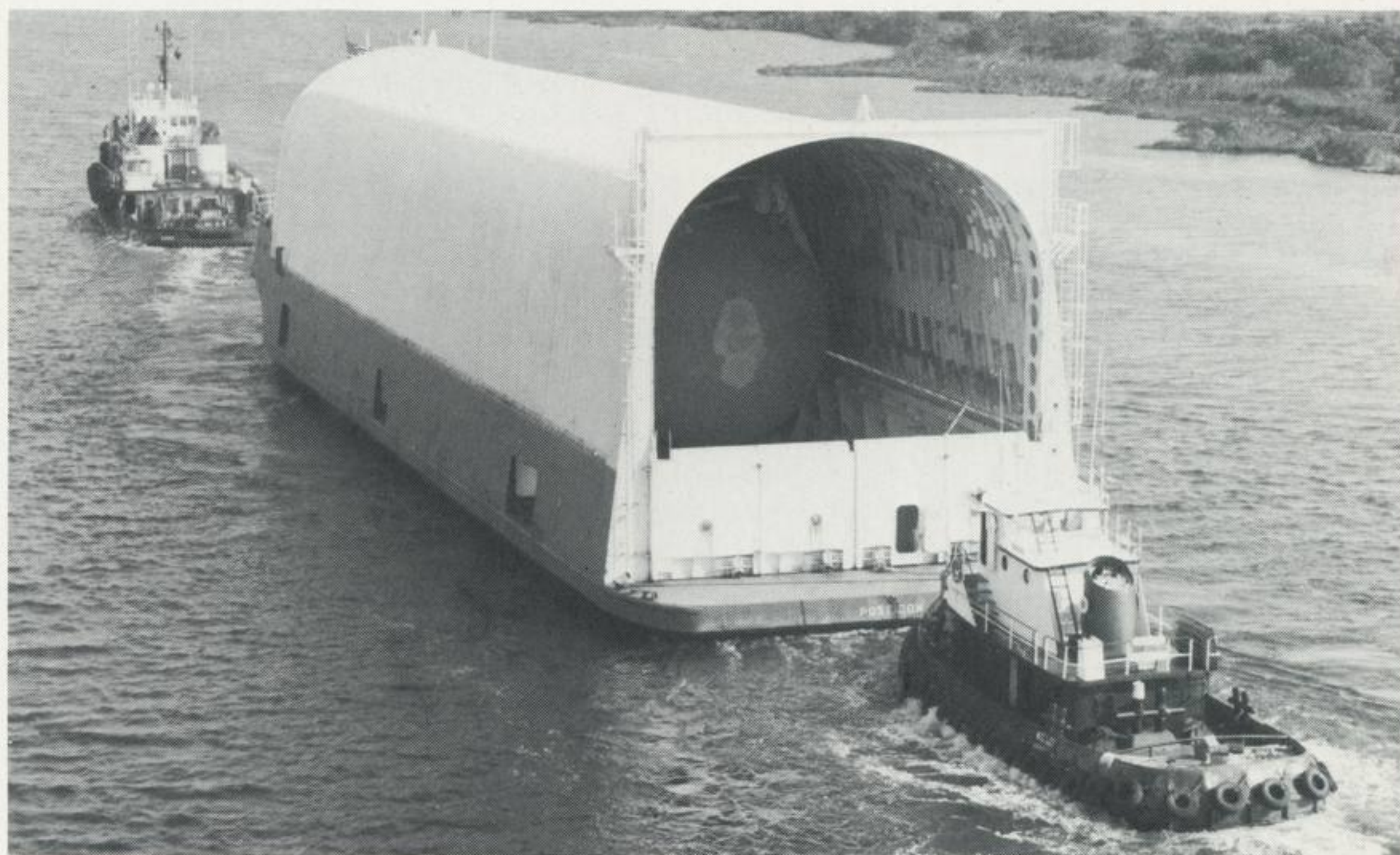
The first space shuttle external fuel tank has arrived at Vandenberg Air Force Base (VAFB) CA after a 5000-mile journey via the Panama Canal, marking a major milestone in activation of the West Coast space launch complex.

The 154-foot-long external tank — largest element of the shuttle and its structural backbone — began its journey Sept. 25 at NASA's Michoud assembly facility at New Orleans, where Martin Marietta Aerospace manufactures the tank for the space agency.

With the arrival of the tank at Vandenberg Sunday, Oct. 21, the U.S. Air Force program to construct a shuttle launch and landing complex at Vandenberg continues to progress on schedule. Plans call for an October 1985 initial launch from the new complex.

Although this particular external tank is qualified for flight, it will not be used until the third shuttle launch from VAFB. Instead, developmental flight and test instrumentation will be added to other external tanks for the first two missions. That instrumentation will provide valuable data on external tank performance and related ground systems.

The U.S. Army Corps of Engineers has been responsible since 1979 for building

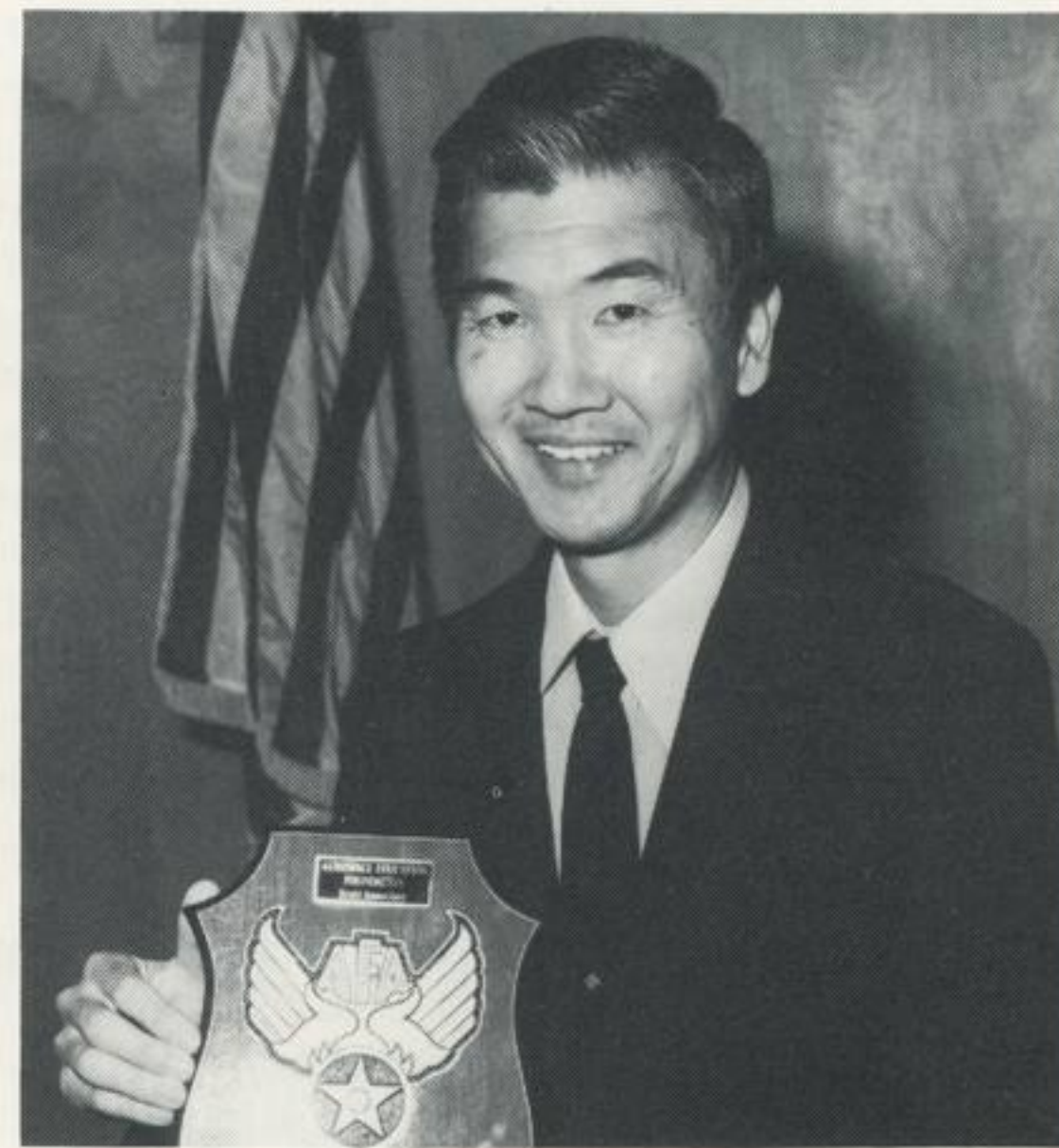


External tank aboard barge from Michoud to Vandenberg.

from Vandenberg will carry both Department of Defense and NASA payloads.

For the journey to Vandenberg, the external tank was mounted on a transporter at Michoud and shipped on a covered barge formerly used to tow Apollo segments to Florida's Kennedy Space Center.

Vandenberg's Nakata named engineer of the year by Air Force



John Nakata, Titan systems engineer at California's Vandenberg Operations, has won the prestigious award of Vandenberg Civilian Engineer of the Year from the Air Force Association's Goddard chapter. The award was presented by the association's president, Bob Griffin, during the group's annual awards dinner Oct. 5.

Nakata has spent 19 years supporting Titan II and III, Peacekeeper, and ground support systems (GSS) programs at Vandenberg Air Force Base with his technical expertise.

The award recognizes him specifically for his performance and contributions as the Titan instrumentation product integrity engineer, his design of the solid state battery load test tool used to condition flight batteries, and his contributions to the design of advanced instrumentation systems to be used on other Martin Marietta programs at Vandenberg.



California harbor for external tank.

and facility construction at SLC-6 (space launch complex-6), Denver Aerospace has had responsibility since 1975 for design, procurement, installation, and checkout of shuttle ground support systems (GSS). Focus of the work shifted from external construction to GSS integration and testing last May.

Ground support systems consist of 13 new or modified groups of facilities. Major structures, besides the shuttle assembly building, include a launch control center, payload preparation facility, an access tower for the mounted orbiter, and a mobile service tower for access prior to liftoff.

The West Coast space launch complex will enable the Air Force to undertake shuttle missions requiring high inclination or polar orbits. Shuttle missions originating

The barge entered the harbor at the old Coast Guard boathouse area, south of Point Arguello CA, which was dredged and prepared for the arrival. The tank on its transporter was unloaded and towed by a large tractor over a specially constructed 2.3-mile tow road to Vandenberg's external tank checkout and storage facility, which is capable of storing up to five tanks at a time.

At the facility, the tank will undergo a four-week inspection by the Air Force and its shuttle processing contractors, with participation by Martin Marietta engineers. Early next year, it will be mated with two inert solid rocket boosters and the shuttle orbiter Enterprise for testing of compatibility between the shuttle and ground facilities.

Recreation

(Editor's note — Martin Marietta Denver Aerospace's Recreation Department, exts. 6750 and 6605, is located in Engineering Bldg module 124. Flyers on sports and other extra-curricular activities; discounted tickets for sporting events, entertainment, and travel; and special sales also are available from the department's information racks throughout the company.)

ALPINE—The Rocky Mountain Alpine Club (RMAC) has scheduled a beginner's cross-country ski trip on Guanella Pass for Saturday, Nov. 10 (Marc Brideau, ext 8346). The following week, Sunday, 17 Nov., is targeted for a combined beginner/intermediate cross-country ski trek along Burning Bear Trail in that same pass area (Larry Espelage, ext 5376 and Gordon Voss, ext 8083 or 973-6512).

BASKETBALL—An organizational meeting for the 1984-85 Martin Marietta Intramural Basketball Association men's and women's winter basketball leagues will be held in the Space Support Bldg (SSB) cafeteria, beginning at 4:30 p.m., Monday, 29 Oct. There will be a competitive league for those interested in more serious playing challenges, two recreational leagues, and an open women's league. Roster information blanks must be completed and returned by Nov. 12 (Kevin Odle, ext 3598).

CHESS—The Martin Marietta Chess Club's two regularly scheduled monthly meetings will be held in the second floor Snack-a-teria at Denver Systems Center I (DSC I), beginning at 6:30 p.m., Wednesday, Nov. 7 and Thursday, Nov. 15 (Dick Pickerell, ext 5891).

RADIO—Traffic handling will be the topic of a discussion at the next meeting of the Waterton Amateur Radio Society, beginning at 5 p.m. Tuesday, Nov. 6, in the Ham Shack in the company's recreation area (Hal Beaver, ext 1938).

SKI—The November meeting of the Satellite Ski Club in the Millbrook Townhome clubhouse 7950 South Depew St., off Platte Canyon Rd., will begin at 7 p.m., Wednesday, Nov. 14. At that time sign-ups will be conducted for weekend trips to Aspen and Steamboat Springs in Colorado and Jackson Hole in Wyoming; and day trips to Copper Mountain, Keystone and Vail (Ski Phone, ext 3477). The club also sells Gold C value books containing discount coupons for various food, entertainment, clothing, automobile, and hundreds of other needs. Also available are ASA (American Ski Association) Skiamericard gold cards for discounts on another variety of ski-related items and services.



Capt. Russell Fritz (left), community relations and development director, briefs Denver Aerospace volunteers — coordinators and others — for the 1984 five-county Mile High United Way campaign at the Salvation Army's downtown Denver service center. The Salvation Army is one of the 88 participating agencies in United Way. The briefing was part of a more extensive tour for company volunteers during Oct. 8 through Nov. 9 campaign. Denver Aerospace employees can participate in the campaign through the payroll deduction plan, thus having the tax-deductible contributions spread over the entire year. This year's Mile High campaign goal is \$23,260,000, a 17 percent increase over 1983. Also pictured, left to right, are James W. McAnally, vice president of defense systems and this year's company United Way campaign manager; Richard Westbrook; Hank Eckert; Richard Berry, Clare Bena and Diane Steinert (back row); Geneva Purdy; and Joy Archibald.

PSP open enrollment slated for November

Non-exempt and exempt salaried employees who will have completed at least six months service as well as 1000 hours of service as of Jan. 1, 1985 are eligible to enroll in the Performance Sharing Plan (PSP) during the month of November.

An employee who has been rehired with service reinstated also is eligible for enrollment during the open period if that person's months and hours of service total six months and 1000 hours.

Changes permitted employees currently enrolled during open enrollment include modification of the percentage of payroll deduction for PSP and changes in the tax mix (before- or after-tax contributions). Changes for investment options, for future and past contributions, are effective on the valuation date of the end of the given month following receipt of the proper form at the employee benefits office.

Forms must be received at mail stop 1323 by Nov. 30, 1984 for an election to be effective Jan. 1, 1985.

Reduction of salary deferral deductions for PSP participants in the upper one-third salary ranges will be determined when the discrimination test is run during December. Employees affected will be notified of any reduction.

An employee who has withdrawn or suspended contributions must complete a form to re-enroll or increase contributions after the appropriate waiting period.

The employee benefits office — module 125 Engineering Bldg, exts 5609 and 4928 — has office hours from 10:30 a.m. to 12:30 p.m. and 2-3 p.m. Mondays, Wednesday and Fridays. Off-site personnel badged to Michoud, Vandenberg and Canaveral operations should submit forms to the appropriate benefits office at those locations.



Peter B. Teets (left), Denver Aerospace vice president and general manager for strategic and launch systems division, presents a \$25,000 check to Mrs. Mary Washburne, member of the Denver Botanic Gardens board of trustees, and Merle Moore, executive director of the botanic group. The donation is part of Martin Marietta's continuing program of grants and awards to Colorado agencies and community organizations.