

NUMBER 16/1979

OCTOBER 18TH, 1979

DEAR MR. ...

I AM A GREAT ADMIRATOR AND ENTHUSIAST OF THE ADVANCED
 AIRSPACE TECHNOLOGY OF UNITED STATES OF AMERICA
 I WOULD LIKE TO SEND THE INFORMATION AS DATA, WEIGHTS
 AND PICTURES OF MILITARY TECHNOLOGY AS TITAN ICBM, MISSILES
 ROCKETS AND OTHERS WEAPON
 I AM 22 YEARS OLD
 I LIKE UNITED STATES VERY MUCH

THANK YOU VERY MUCH
 YOUR VERY TRULY
 Domiano Puljita

ADDRESS IS
 RUA DAS PALMEIRAS Nº 855 BARROSAZEM
 OROCOO SAO PAULO ESTADO DE SAO PAULO
 BRASIL
 Colorado, 80201

Mighton Ministry Corp.
 Box 179
 Denver 80201
 Massachusetts
 Resident Manager & Office

17th Dec 1979
 27.7.79

Dear Sir or madam,

Could you please send me information on the design of the Viking spacecraft and any data on the development of the orbiters, thank you,
 Eamon Mullhall

Dear Sir
 I have a question about space. I am becoming an astronaut and I would like to know what and astronaut like to know what and astronaut in the 1990's to 2000 would have to have for a back ground. I would appreciate these questions being answered by someone with some knowledge of this. I of a secretary answer this I would like to know it in the return letter.

Sincerely,
 David Gold

MARTIN MARIETTA USA
 DEAR SIR

LECTING LABELS
 COMEND MAKES
 FIRM PLEASE
 ME SOME
 PROSPECTS
 LOGS VOORS
 BY MUCH
 ADDRESS
 UK WITH DIGNITY
 P. KRAWCZYK RYSZARD
 AKOW N-HUTA 31-963
 KRAKOWIAKOW 20/29
 POLAND

Letters reflect interest in division projects

One was addressed, "Mighton Merriety Corp."

Another, "Martin/NASA."

And yet another, "Famous American Space Programs."

These letters, along with those addressed more traditionally, reached the division's public relations department which receives about ten letters a week requesting information or photos for school projects, term papers, displays, or for personal information.

Requests increase with successful space events and near the end of school years when term papers are due.

Letters have come from Sri Lanka, Thailand, India, the Netherlands, Poland, Brazil, Canada, Ireland, and from most of the United States. Several division stamp collectors have had their collections enriched by donations from the public relations department.

Some writers are specific in their requests; others are more general. Some are adamant.

For example, a young man seeking information on the academic preparation needed by astronauts said, "I would appreciate these questions being answered by someone with some knowledge of this. If a secretary answers this I would like to know it in the return letter."

Another requesting a Titan III photo said, "Now don't send me anything, except an answer." He added he didn't want to get anyone in trouble and to show he was trustworthy he said, "I would never betray my country, also I have a small collection of photographs already."

Then there was this PS to another letter: "(You could tell me one of your secrets too. I wouldn't tell anyone.)" That was from a Mississippi student who confessed his friends "think I am crazy" because of an interest in space and a desire to live on a satellite and travel to Mars.

There are also telephone calls. Most are from students who need last minute help with a term paper. One caller was planning ahead. He requested the specifications for the feature identification and location experiment (FILE) and proceeded to build a replica as a science fair project.

Then there was a call for detailed speci-

MARTIN MARIETTA USA
DEAR SIR

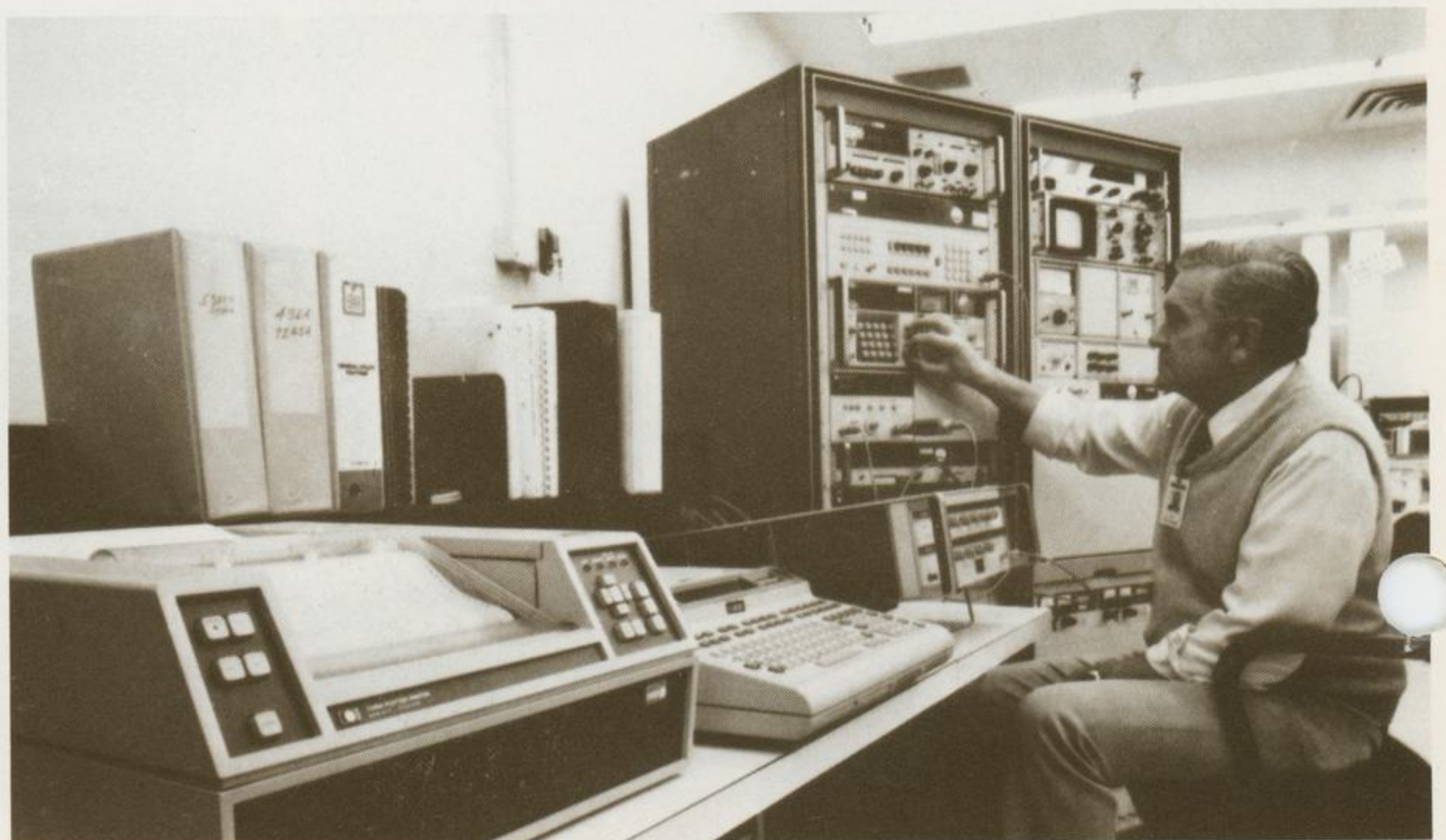
I AM COLECTING LABELS
OF PRECOMEND MAKES
YODRS FIRM PLEASE
SEND ME SOME
LABELS PROSPECTS
OR CATOLOGS YODRS
FIRM VERY MUCH
THIS'S MY ADDRES
VERYTHANK WITH DIGNITY

W.P. KRAWCZYK RYSZARD
KRAKÓW N-HUTA 31-963
oś. KRAKOWIAKÓW 20/29
POLAND

Letter from Poland is typical of those received from overseas. Although this one is in English, many are in the language of the country and require translation.

fications for the Space Shuttle external tank. The caller said he and some friends had financial backing for a commercial version of Shuttle. Its use? To take vacationers into space.

Harold H. Jones, metrology engineer, uses the automatic radio frequency calibrator to check a frequency synthesizer for Ampex. Ampex is one of several area firms using the division's calibration laboratory services to assure accuracy of their instruments.



Metrology lab calibrates instruments for division, community industry

With one of the best equipped calibration laboratories between the Mississippi River and the West Coast, the division is being called on to check instruments for many area industries — as well as keeping division equipment at the peak of accuracy.

During the past year, the lab has had nearly 60 outside accounts. "We manage each outside job much like we manage the division's other projects," said Benjamin T. Rotruck, supervisor of quality engineering's metrology lab.

Outside work was sought in the early 1970s so that calibration skills could be maintained. Now it is to provide a service to industry in the community.

Success of the lab is because of its scope of capability. While many firms can do electrical calibration or mechanical calibration, the division additionally performs low pressure, high pressure, vacuum, alignment, and temperature calibrations.

Rotruck said the lab also is keeping up with advances in instrument technology, especially that brought about by microprocessors. "We are developing automatic systems to handle new instruments. Automated radio frequency calibration equipment, for example, can write out the calibration certificates automatically. We expect to use the system to diagnose equipment problems as well as to calibrate the equipment."

The metrology lab is also the control center for test equipment, with responsibility for more than 8000 items of portable test equipment, including arranging for and monitoring its use in the division.

Division complying with federal rules on building temperatures

If you believe temperatures are lower in division facilities, you are right. To comply with emergency building temperature restrictions and regulations established in July by the federal government, thermostats can be set no higher than 65 degrees for heating. (In summer, thermostats were set at 78 degrees for cooling.)

Department of Energy representatives are monitoring compliance. Violations can bring civil penalties of up to \$5,000 and criminal penalties of up to \$10,000 for each violation.

Individual portable heaters, ventilating equipment, and heat lamps are prohibited under the regulations.

"There are no exemptions from the law regarding use of space heaters for health reasons," division counsel Jacques H. Croom said. "The company cannot apply for relief. However, an exception can be granted an individual. To obtain an exception, an individual must file an application with the Department of Energy."

Croom said he will assist individuals with applications, which must include a physician's order or opinion that the portable heater is necessary for health reasons.

"Filing an application does not permit use of the heater," he said. "The application must be approved and a copy presented the individual before the heater may be used. The copy must be available for inspection."

Employees who qualify for an exception should contact Croom at extension 655 at the West Point facility.

The penalties that are assessed for building temperature violations apply to the use of portable heaters.

Band saw guard designer is honored

George W. Curry, senior facilities requirements specialist, has been commended for his design of a safety guard for vertical blade band saws.

The guards, fabricated from one-quarter inch Lucite, have been installed on 27 saws. They meet federal safety regulations, provide safety for operators, and allow reasonable use of the saws.

Several years ago Curry designed and installed guards on paper shears that have almost eliminated accidents and injuries caused by these devices.

Operation Santa Claus to aid 100 families

Operation Santa Claus, an employee-operated assistance program begun in 1959, will aid 100 families this holiday season.

The 100 families will be selected from referrals by employees, the Denver City-County Welfare department, the Arapahoe County Welfare department, and the Salvation Army.

"Normally, we have 150 to 175 referrals," said Kenneth E. Sedlmayr, founder of the organization and its chairman through 21 seasons. "The selection committee evaluates each referral and chooses the 100 families we can best help."

In 1978, \$11,500 was used to buy food and toys. The large food basket contains food as well as staples the family

can use for a longer period. A toy is given to each child under 16.

Cash donations may be sent to Beverly K. Fuhrmann, Mail No. 0500. Checks should be payable to Operation Santa Claus.

The annual wrapping party for toys and food will be held December 20 at St. Mary's Church, Littleton. About 100 volunteers are needed to prepare for the distribution. To volunteer or obtain more information, call Ms. Fuhrmann, extension 3144. She is secretary of the organization.

Others working on the program are Edward L. Koch Jr., assistant chairman; Kenneth Thompson, chairman, grocery purchasing; Edward L. Kinney, chairman, toy purchasing; and Walter Martynec, paper drive chairman.

Cafeteria schedule

With the increased use of division cafeterias, employees are urged to use the cafeteria schedule to avoid congestion and overcrowding.

Serving Times	
Breakfast	
Engineering building cafeteria	6:00 am to 7:50 am
Lunch	
Engineering building cafeteria	10:30 am to 12:45 pm
SSB cafeteria	10:45 am to 12:45 pm
DSC cafeteria	11:15 am to 12:45 pm
Lunch Schedule — Engineering building cafeteria	
Maintenance, boiler house	10:30 am
Factory — second floor	10:40 am
Factory — first floor	10:50 am
Inventory building	11:00 am
Reproduction, GPL, VTF	11:10 am
Engineering building — first floor even numbered modules; hill labs	11:20 am
Administration building — first floor	11:30 am
Engineering building — second floor odd numbered modules	11:40 am
RDL — first and second floors	11:50 am
Engineering building — second floor even numbered modules	12:00 noon
RDL — third and fourth floors	12:10 pm
Engineering building — first floor odd numbered modules	12:20 pm
Administration building — second floor	12:30 pm
Administration building — third floor	12:40 pm
Lunch Schedule — SSB cafeteria	
EMF, SSL, SSB maintenance	10:45 am
SSB — first and second floor	11:00 am
SSB — third floor	11:20 am
SSB — fourth floor	11:40 am
SSB — fifth floor	12:10 pm
SSB — sixth floor	12:20 pm
Lunch Schedule — DSC cafeteria	
DSC — first floor, east half	11:15 am
DSC — first floor, west half	11:30 am
DSC — second floor, east half	11:45 am
DSC — second floor, west half	12:00 noon
West Point	12:15 pm

Two defense satellites launched by Titan IIIC

The 32nd Air Force Titan III launch put two defense satellites into orbit Tuesday, November 20, maintaining the military's world-wide communications network.

The satellites will provide primary space communication links for the Defense Department and other federal agencies. Using an X-band frequency, the system securely transmits voice, digital data, and television between military complexes, including mobile tactical sites.

The 1350-pound satellites were placed in Earth orbit 19,324 nautical miles (22,300 statute miles) above the equator. They join four other Defense Satellite Communications System Phase II (DSCS II) satellites put in orbit by earlier Titan III missions.

The new satellites are in geostationary orbits over the Atlantic and Pacific Oceans at the equator. They replace two older DSCS satellites that will be moved to other orbit positions and used as spares.

About eight minutes after launch, stage II injected the Transtage and the satellite into an 82-nautical-mile temporary orbit.

Nearly an hour later, after one revolution of Earth, the twin-engine Transtage was fired 5 minutes and 21 seconds, to put itself and the satellites on a transfer orbit. Reaching near-final orbit altitude 5 hours and 15 minutes later, the Transtage was fired a second time to stabilize in a geosynchronous orbit and the twin spacecraft were separated from it.

Each satellite has an attitude control system for in-space maneuvers that responds to ground radio commands.

The satellites have two major elements: the spin and despin sections. The spin section is about nine feet in diameter, six feet high, and is covered with solar cells that produce 520 watts of peak power. It revolves 50 to 80 times per minute for stabilization. The despin section carries the antennas and most of the communication components.

The DSCS space segment is managed by the Space Division of the Air Force Systems Command. The satellites were made by TRW Systems Incorporated.

MARTIN MARIETTA NEWS

Published by Public Relations
MARTIN MARIETTA AEROSPACE
Call Ext 5364 with suggestions
or information for articles

Denver Division
P.O. Box 179 • Denver CO 80201
November 1979

At Canaveral

Canaveral operations earns two safety awards

Canaveral operations has earned the National Safety Council's award of honor and a first place award in the aerospace section safety contest for the second consecutive year.

Since July 1970, employees have worked 6,082,171 hours without a disabling injury, earning 10 major National Safety Council awards as well as an individual award from the U.S. Air Force.

Canaveral achieves 100% United Way participation

Canaveral operations has achieved 100 percent employee participation in support of the Brevard County United Way. Annual contributions are up nine percent, with an average employee contribution of \$84.50.

Felix J. Scheffler was chairman of the loaned executive program and H. Ritchie McConahy served as a loaned executive for the fourth consecutive year.

Holiday party is planned at Canaveral

The annual Canaveral operations Christmas dance will be held Saturday, December 15 at the Quality Inn Convention Center in Cocoa Beach. Tickets may be purchased from the dance committee for \$5.00 per person.

Employee reappointed to hearing board

Thomas R. Heaton has been reappointed to the air quality hearing board of the Colorado health department by Governor Richard Lamm. Heaton has served on the board since it was formed in 1967 as the air pollution variance board.

Heaton's new three-year term will begin in January. He is chairman of the board.

The board reviews emission permits, compliance schedules, compliance orders, and can levy fines for air quality violations. It also serves as an appeal board for industry when a firm disagrees with a health department ruling.



Ronald N. Halcomb, left, Canaveral operations safety chief, and Jack B. Gilbert, quality manager, display recently received National Safety Council awards.

Golf tournament winners named

Winners have been named in a recent golf tournament sponsored by Canaveral operations in which employees, associated contractors, and Air Force personnel participated.

Among employees, Edwin H. Yoshida had a low gross of 82 and John Clement the low net of 71. Other winners included James Cromer, PAA, low gross, 78; Charles E. Kirk, USAF, low net, 71; nearest the pin, Jack Helms, USAF, and Frank Covey, ASCO; Anthony Yannota, Martin Marietta, longest drive; Douglas Gilman, Martin Marietta, fewest putts; and Kirk of the Air Force, most pars.

Recreation

Ski Cards: Two ski cards, Vail's Colorado Card and Ski America Card, are being offered at discount rates to employees. The Colorado Card will be available until December 10 and the Ski America Card until December 21. Cards may be purchased at the recreation office, engineering building 125.

Discounts: The recreation office has discount plans for entertainment, travel, and some merchandise. Information may be obtained from the office from the reading racks.

At Vandenberg

Vandenberg earns safety award for fourth year in row

Vandenberg operations has earned the Space and Missile Test organization commander's safety award for the fourth consecutive year.

The award was presented by Maj. Gen. James H. Marshall, commander of the Space and Missile Test organization.

Commenting on the operations' safety record, General Marshall said, "The effectiveness of Martin Marietta's safety program is demonstrated by its 13 years of operations at space complex #4 without serious incident while successfully launching 73 vehicles. Further, in 1978, 1,278,832 man hours were worked without a significant injury.

"It is evident the safety awareness you have in your organization is paramount in your operations, from Charles E. Carnahan, space launch systems vice president, your local Vandenberg operations management and its director, Ortha Jones, to your outstanding safety engineering staff. The supervisor and employee safety committee also plays a significant role in achieving this excellent record. You should be proud of a most enviable record."

Jones accepted the award for Vandenberg operations.



Elsie M. Overby, payroll accountant, finance and contracts department, reviews United Way deductions computer run with Aubrey (Jack) Churchman, Vandenberg operations United Way chairman. Churchman is senior management engineer in industrial relations and services department. Goal of the campaign is to increase contributions 50 percent.



Melville J. Wheeler, left, Titan program safety engineer, and Burt T. King, chief of safety for Vandenberg operations, hang the 1979 Space and Missile Test organization commander's safety award plaque following award ceremonies.

Nine participate in cross-country run

Nine Vandenberg operations employees participated in the sixth annual Commander's cross-country run at Vandenberg Air Force Base.

Two Vandenberg operations employees tied for first overall with a time of 30:15 for the 5.15 mile course while winning in their age divisions. The runners were Russel A. Sharer, mechanical structural department, 18-29 age group; and Michael B. Ryan, finance and contracts department, 30-39 age group.

Third in the 30-39 age division and seventh overall was Jerry W. Wright, operational development, with a time of 34:20. John F. Coffey, logistics department, was first in the 40-49 age group and fourth overall with a time of 32:11.

Other finishers among the 47 entrants were William J. Edwards, mechanical structure, 37:30, 17th overall; Gary H. Minar, systems engineering, 38:16, 21st overall; Timothy E. Deweese, 39:33, 28th overall; Frederick W. Quigley, 39:38, 29th overall; and Mark W. Mapes, 55:42; all of finance and contracts department.

Employee is named to park commission

Gordon L. McAhern, of the Vandenberg operations, has been named to a three-year term on the Lompoc parks and recreation commission.

McAhern has directed park activities for the Lompoc Flower Festival for five years. He is a member of the Lompoc Valley Festival Associations and is past captain of the Lompoc fire department.

Vandenberg employee is engineer by profession, avocation

Charles H. Johnes is a field engineer in Vandenberg operations' test operation department. He is also an engineer by avocation — the sole engineer for radio station KCHJ in Delano, CA.

Famous for its "Stardust Time" shows, the 5000 watt station is a family venture started by Johnes' father in 1951 while the younger Johnes was in high school. The younger Johnes got his commercial radio license in 1953, working at the station weekends and summers while attending Fresno State University.

In the early years Johnes' mother originally helped her husband select the music. The elder Johnes recorded the voice tracks and, even though he died in 1968, his voice still comes over the air on those original tapes six days a week along with music of the '40s — '50s.

The unique program gained the attention of Walter Cronkite of CBS news, who recently interviewed Mrs. Johnes, discussing the station's history and plans.

Charles Johnes says he will continue as the KCHJ engineer as long as the family owns the station. He travels from his Lompoc home to Delano as often as once a week to trouble-shoot equipment, tend the tape recorders, automation equipment, transmitter, and antenna.



Charles H. Johnes, a Vandenberg operations field engineer, checks equipment as radio engineer for family-owned radio station KCHJ.

Woman plays key role in external tank program

Heading a department of 53 persons, 49 of whom are men, has posed no big problem for Gayle Howell, chief of manufacturing engineering at Michoud.

"I've never had a bit of trouble or resentment from the men in my department," said Ms. Howell. "They know I'm capable of doing the job and that I won't be a stereotyped petty or emotional woman with them."

She is responsible for providing technical advice and supervision of all administrative elements of the department. The department is the link between design and construction of all external tank related items. All designs are approved in the department before being sent to the factory for manufacturing.

"It's a lot of work and very challenging," she said. "But it's a lot better than not having enough to do."

An electrical engineering graduate of Tulane University, she joined Boeing and the Saturn 1-C program in 1962 as a manufacturing engineer. She took the same position with Martin Marietta in 1974. Less than a year ago she was promoted to chief.

"Actually, there are advantages to being



a woman in a managerial position," Ms. Howell said. "When I'm in a meeting with a group of men, you can be sure that I'll be remembered."

The only problem she encountered was

adjusting to home life after a day of being in command. "The responsibility I had at work tended to make me very independent," she explains. "Then I'd go home and be surprised that I wasn't treated by my family with the same respect."

The job doesn't end when she leaves the office. "I have to be available at all times. I can't come up with any flimsy excuse such as, 'I just started cooking dinner and I can't leave now'."

Ms. Howell is as attractive as she is tough. "I get kidded when I wear a dress to work," she laughed. "It seems that everytime I wear a dress, I end up in the factory and have to climb up on something."

Her advice to upcoming men and women manufacturing engineers is simple and direct: "Don't expect the work to be glamorous. And, remember that you won't always be using the fancy formulas you learned in school."

The main ingredient in a good engineer is common sense, according to Ms. Howell. "You don't need to know the answer to a problem, but you do need to know how to find it."



Vaughn E. Connely, supervisor of logistics for external tank operations at Kennedy Space Center, recently received a manned flight awareness award. In the photo, left to right, are Mark J. Goodkind, Clement D. DiLoreto, Louis S. Favata, Edwin H. Yoshida, Connely, Robert B. Crawford, Thomas W. Goodwin, Willard C. Thaxton, Clifford F. Taber, and Stephen S. Tucker.



Dave Tanzer, right, accepts a Jobs for Veterans award for Michoud operations from James Friloux, chairman of the Federal Executive Board. The award, sponsored by the U.S. Department of Labor, was in recognition of Michoud's "fine record ... for hiring veterans throughout the past year," and for providing training opportunities for veterans.