

## Welding Crews at Seal Beach Are Lauded for Work

Werner K. Gengelbach, NASA Saturn S-II resident manager, has paid tribute to the quiet "will do" attitude of the weld crews at Seal Beach.

In a letter to R. E. Greer, then vice president and S-II program manager, and who since has been shifted to Space Station program manager, Gengelbach wrote that "the continual improvement that has been achieved by welding crews of the S-II stages has been exemplary and highly commendable."

"To achieve a perfect weld of 1,244 inches with multiple weld passes, dual synchronized welding heads, as was done on the cylinder #4 to cylinder #5 weld in March, was outstanding."

"To follow it up with the repair-free dye penetration-perfect, circumferential 'J' weld in June by the same crews, showed a real and definite 'PRIDE' in their workmanship."

"Then, to top that with another X-ray and dye penetrant squawk-free, perfect circumferential weld on July 9 for the cylinder #5 to cylinder #6 weld on the S-II-14, demonstrates that these same crews are not letting down but are putting that important extra effort that spells morale, craftsmanship and pride."

"My sincere congratulations to you and those crews. I firmly believe that the quiet 'will do' attitude of those men has set a standard that they are determined to maintain."

The weld crews under E. B. Scott, manager, Vehicle Assembly, and A. P. Shultz, manager, Major Subassembly Welding and Bonding, have indicated a determination to maintain their outstanding workmanship.

Since Gengelbach wrote the letter, the meridian and dollar weld crews have completed the S-II-15 liquid oxygen bulkhead repair-free without an X-ray squawk.

This consisted of 12 meridian welds of 220 inches each and an inside and outside dollar weld of 349 inches to total 3,330 inches or 93 yards of compound contoured welding.

### 54 Astronauts Now Active

NASA is assigning seven of the Air Force Manned Orbiting Laboratory aerospace research pilots to its astronaut program and an eighth to non-astronaut duty in its Flight Crew Operations Directorate.



**DECISIONS, DECISIONS**— Hundreds of employees are participating in the "Name the Apollo 12" contest. Winner will receive trip to November launch at Cape Kennedy. Searching for names are, from left, C. B. Thomas, G. V. Green and F. B. Malott.

## INFORMATION SYSTEMS FIRM TO BE FORMED BY COMPANY

A new company which will specialize in managing mass amounts of commercial information is being formed by North American Rockwell Corporation, it was announced this week by Robert Anderson, executive vice president.

Anderson said the new firm — North American Rockwell Information Systems Company (NARISCO) — will use as its nucleus an existing organization within NR's Autonetics Division, called Information Systems. The new company will begin operations on Oct. 1 and is expected to have sales in excess of \$12 million in 1970, according to Anderson.

"The pressing need for information management expertise in a society caught up in its own complexities, demands immediate full-time attention," Anderson added, "and the most effective way we can apply our unique capabilities to this area is by establishing a company exclusively devoted to it."

"The business growth potential of NARISCO, with its total capabilities and an independence to turn its talents to solving information management problems full-time, is very great."

Anderson said S. L. Hasin, currently vice president of Information Systems, has been named president of NARISCO, which will be headquartered in Anaheim, Calif. Formation of NARISCO as a separate company is in line with NR's stated objective of transferring and expanding aerospace technology to non-military use.

The new company's product is

called an "information system" and is the result of its ability to gather, analyze, store and put into useful form data which, because of its volume and complexity, otherwise would be less useful.

Experience in data management at NR stems from such activities as the Apollo space

(Continued on Page 2, Column 1)

## 29,868 Check Points Reveal Only 8 Defects

Manufacturing know-how and quality attention-to-detail combine to produce results in Plastics and Bonding department.

The department, Manufacturing's largest, fabricates plastic parts and assemblies for both the Apollo spacecrafts' command and service modules and the Saturn S-II stage.

Under Don Greene, manager, the department in July, Expended 37,081 man-hours with 29,868 inspection points, and only eight defective parts. In August, they are continuing to work toward the ultimate goal of zero defects.

In a letter to John Healey, vice president — Manufacturing and Facilities, Tom McDermott, vice-president, Quality and Assurance, said, "This is indeed an accomplishment for which Don Greene and his men should be commended. What is even more gratifying is the consistency and permanency of the quality improvement in this department the past two years."

"I have had numerous discussions with our Quality Control personnel about this department's activities and problems, and I know this demonstrated achievement comes not from a sudden technological breakthrough, but rather from a motivated group of people who truly practice craftsmanship in all their daily tasks."

"Along with this", McDermott continued, "Don has been maximizing the use of Quality Engineering, and I would like to think that this well developed working relationship has contributed to this excellent performance."

"As you know, Space Division's goal is zero defects, and I note that Don Greene and his personnel reached this goal for two consecutive weeks in July."



North American Rockwell  
News

Space Division Skywriter

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## Hundreds of Employees Submit Apollo Names

### Apollo 12 Astronauts Seek Help from Space Division Personnel

Hundreds of entries have already been received this week from division employees in the program to help the Apollo 12 astronauts select a code name for their command and service modules.

Division personnel last week were asked by astronauts Charles Conrad, Dick Gordon and Alan Bean to aid them in the selection of a CSM code name that will go down in space flight history with the Gumdrops, Charlie Brown and Columbia names of the Apollo 9, 10 and 11 flights.

Scheduled for launch on Nov. 14, Apollo 12's target landing site is in the Ocean of Storms, about 920 miles from the Tranquility Base touchdown point for Apollo 11. Conrad and Bean are expected to be on the moon's surface between five and six hours, doubling the approximately 2½-hour lunar extra-vehicular activity period of astronauts Neil Armstrong and Edwin Aldrin.

The program to choose the CSM code name is limited to division personnel at all facilities. In their letter last week, the Apollo 12 astronauts said employees had earned the right to aid in the selection through the contributions they have made to the lunar program in their "outstanding" work on the Apollo spacecraft and Saturn S-II.

All entries must be submitted by no later than Sept. 5 to: PRIDE Administration, Dept. 41-041, Mail Location EA-06. Only one entry per person will be accepted.

The employee submitting the code name chosen by the crew, and his or her spouse, will be the guests of the Apollo 12 astronauts at Cape Kennedy.

### Study Contract for Rocket Stage Won by Division

Space Division has received a study contract from NASA's Marshall Space Flight Center, Huntsville, Ala., to study design concepts and development requirements for a nuclear rocket stage.

The nuclear rocket stage could replace the current third stage of the Saturn V launch vehicle for advanced missions in the late 1970s and 1980s and serve as a workhorse for Earth orbital and planetary applications.

Three firms were awarded contracts totaling \$1,370,000. In addition to North American Rockwell, contracts went also to McDonnell Douglas Corp. and Lockheed Aircraft Corp.

#### Specific Study

Space Division will study specifically the modified Saturn V hardware concept. The proposed nuclear stage would use the Nerva-nuclear engine now being developed jointly by NASA and the Atomic Energy Commission.

Martin Marietta, Denver, under subcontract to North American Rockwell, will study a barium cloud experiment for possible deployment on a nuclear stage test flight.

Objective of the barium cloud experiment would be to create an artificial plasma cloud in space to simulate the tail of a comet and to study motions of ionized particles in the Earth's magnetosphere.

The Space Division also will investigate outer planet mission payloads for operational flights. This includes the so-called Grand Tour, or multiple-planet flyby missions, as well as single planet orbiter probes.



**OUTSTANDING WORK**— Don Greene, left, Plastics and Bonding Dept., is congratulated by Fred Burry, Manufacturing manager, for the department's outstanding performance record.

Mr. J. Lee Atwood  
President  
North American Rockwell Corporation  
1700 East Imperial Highway  
El Segundo, California 90050

Dear Lee:  
Again, my heartfelt congratulations to you and your people on the Apollo 11 flight! It was a magnificent mission and a dramatic demonstration of the skills and technology created in the Apollo Program. Thanks to the dedication, the perseverance, and the vision of your organization, we have now carried mankind across the threshold of interplanetary exploration — a first step to an exciting new era.

In Apollo there has been laid the foundation of operations and capabilities upon which our nation can now build a program to explore and eventually use the new world of space for the benefit of all mankind. In a very real sense, each one of you has created an invaluable legacy for future generations.

I would like to take this occasion once more to thank you and to ask you to pass on to the members of your organization my personal thanks for all that they did in the past to make the manned lunar landing possible, and for all that they are doing in the present to continue the activities of the Nation in space.

Sincerely,  
/s/ George E. Mueller  
Associate Administrator  
for Manned Space Flight



**HISTORIC DISPLAY**—Some 43,000 persons filed past the Apollo 11 Command Module last week at display for North American Rockwell employees and families. Spacecraft was returned to Downey for post flight analysis. "Columbia" then will go on national and world tour, will end up in Washington's Smithsonian Institution where it will remain as a part of a permanent display.

## IN-PLANT CLASSES AT UCI SCHEDULED

Registration for In-Plant University of California at Irvine (UCI) classes will be held this Monday, 10 a.m. to 3 p.m., and again Sept. 8, in the Manpower Development Office, Bldg. 80, Seal Beach.

Registration for In-Plant University of California at Los Angeles (UCLA) classes will be held during the week beginning Sept. 15, in the Educational Programs Office, Bldg. 5, Downey.

All classes start in September and are held 5:30-8:30 p.m.

UCI courses and starting days are: Management Information Systems, Sept. 15 Elements of Production and Operations Research, Sept. 16; Principles of Cost Estimating, Sept. 17, and Accounting for Managers, Sept. 17.

UCLA courses and starting dates are: Introduction to Information Management, Sept. 23; Organization and management Theory, Sept. 24, and Government Contract Pricing, Sept. 29.

## FIRST-DAY RECORD EXPECTED

### Moon Landing Stamps Readied

First-day cancellations of a special jumbo-sized air mail postage stamp commemorating man's first landing on the moon have already generated thousands of requests at post offices throughout the nation and the stamp is expected to set a new record for first-day issues.

The previous record—three million-plus—was set by the commemorative Project Mercury stamp.

The moon-landing stamp also will set another record... it will be the largest stamp ever issued by the United States, measuring 1.05 by 1.80 inches.

First day cancellations are expected to be issued by the

Washington, D.C., post office late this month or early in September, and Postmaster General Winton M. Blount has been quoted as saying the stamps will be made from the engraved master stamp die that accompanied astronauts Neil Armstrong and Edwin Aldrin to the surface of the moon.

A proof stamp, made from the die, was affixed to a special "moon letter" that accompanied the astronauts through space on the first "mail run" to the moon. The stamp, approximately 50 percent larger than a usual stamp, was hand-cancelled on the "moon letter" with a special postmark reading "Moon Landing U.S.A."

## Division Personnel Lose Homes in Hurricane Gales

At least 20 Space Division employees at Mississippi Test Operations (MTO) lost their homes in hurricane Camille last weekend.

While at press time, no employees were reported to have lost their lives, a few of the

division's 490 personnel still were missing.

NASA's Mississippi Test Facility is some 20-30 miles east of the Gulf cities leveled by Camille's 150-190 m.p.h. winds. Some 140 employees and their families live in the Gulf communities of Bay St. Louis, Waverly, Pass Christian and Gulf Port, all of which were severely damaged.

Two stages, S-II-9 and S-II-10 are at MTF and withstood the storm with only minor damage reported. The A-1 and A-2 test stands, on which the second stage of the Saturn V is static test fired, suffered more severe damage, but generally came through in good shape. Four of twelve office trailers were lost. Power losses have hampered efforts to resume operations.

## GOVERNOR NAMES AEROSPACE WEEK

Gov. Ronald Reagan has proclaimed Aug. 24-30 Aerospace Week in California and commended the industry for its "major support role in the highly successful moon mission of Apollo 11."

Reagan singled out for tribute North American Rockwell's Space Division, which built for NASA the Apollo spacecraft command and service modules and the S-II stage of the Saturn V launch vehicle. He noted also the parts played by other companies.

"These and other contractors, large and small, should be congratulated by a grateful nation for their part in this successful space journey," the governor said. "Our aerospace industry is an outstanding example of the creative genius of private enterprise. The industry also demonstrated the capacity of business and universities to join with government in a common cause for the betterment of mankind."



**CONGRESSIONAL VISITOR**—Rep. Barry Goldwater, Jr., (Calif.) attended President Nixon's State Dinner for the Apollo 11 astronauts, came to Downey for a first-hand look at the spacecraft. Harry Peck, left, NASA Post Flight Test Project Engineer, explains spacecraft systems to Representative Goldwater. The inspection and briefing tour encompassed a number of Space Division programs in addition to those related to Apollo.

## John Moore Honored by Electronics Society

Aerospace and Systems Group President John R. Moore was presented with the Medal of Achievement of the Western Electronics Manufacturers Association this week at San Francisco. The occasion was the opening of the Western Electronics Conference.

Also honored as a recipient but unable to be present for the ceremony, was Dr. Lee A. Durbidge, former president of the California Institute of Technology and now science advisor to President Richard Nixon.

## Cause of Deviation

Minute variations in the Earth's gravitational force are enough to cause a satellite to deviate from a perfect elliptical path by hundreds of feet, according to NASA.



**NASA RECOGNITION**—Berge Hagopian, center, holds NASA check for \$150 and letter of appreciation for his Technology Utilization invention. At presentation were Joseph P. McNamara, executive vice president, and Matthew King, NASA TU official. Program is designed to provide for the turning over to private industry the benefits of aerospace research and development.

## Berge Hagopian, 27 SD Employees Win TU Awards

Berge Hagopian, of CSM Group, has received \$150 from NASA for his invention of a cylindrical used to disconnect electrical umbilical plates from the Saturn V during static firing tests and during launch.

The Hagopian award was one of 28 presented by NASA to Space Division personnel for their Technology Utilization innovations. Twenty-seven employees received \$25 each after publication of Tech Briefs concerning their innovations, or new ideas. This brings to \$4,000 the total amount to date paid under the Division's Technology Utilizations program.

### Other Winners

Those who received \$25 checks were: Bill Freeman, Carmine A. Pilichi, Ann M. Dunleavy, Thomas J. Vaughn, Benjamin T. Howland, Albert L. Maurin, Robert C. Seeward, Charles J. Vendl, Joseph C. Wilkowski, Peter A. Bradanini, John T. Kluth, Fred Rish, Joseph L. Schaefer, Fred Svenson, Arthur J. Frank.

Also, Jeanne R. Cathcart, Raymond J. Young, Noel R. Campbell, Stuart Y. Lee, Robert Heisman and Bill F. Iceland, Walter P. Blake, D. F. Holcomb, Bill Ferguson, Ken Colpean, Joseph Massaglia, and Maurice A. Vanasse.

## New Company...

(Continued from Page 1, Column 3) program, Minuteman and various complex aircraft and electronics programs. Its first major non-military program—an information processing and control system for the 21-dam Bonneville Power Authority—began in 1966.

During the past three years the organization has obtained 36 contracts, spanning such diverse areas as education, water pollution control, air traffic control, stock market operations, law enforcement, military logistics and inventory and procurement control.

It also received contracts from Redondo Beach, Calif., and Tulsa, Okla., police departments to develop information systems for more efficient law enforcement; and from the Educational Research Information Center, U.S. Department of Health, Education and Welfare, to put into useful order vast amounts of technical educational material.

It has been awarded contracts to help solve the stock market paperwork jam by the brokerage firm of Merrill Lynch, Pierce, Fenner and Smith, and by the American Stock Exchange.

It also is assisting the U.S. Army Material Command with an information processing system to improve procurement operations, and the California State Water Project.

Hasin served as assistant division director, division director and vice president of Information Systems. He joined NR's Space Division in 1963 as manager of information processing systems, and he previously held managerial positions with Ramo Wooldridge, Litton Industries, Hughes Aircraft and Bendix Aviation.



J. S. Elliott  
Editor, Skywriter  
Judy R. Brown  
Assistant Editor  
Space Division  
Jack Kearney

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# SYMBOL OF NORTH AMERICAN ROCKWELL SEEN ACROSS THE LAND



**FROM WITHIN** — The insignia of the company is seen above in the General Offices, at 2300 E. Imperial Highway, El Segundo. It is beginning to appear in offices throughout the United States and in foreign countries where

the company has representatives. Today it is being found on the many company airplanes, surface vehicles, and myriad products. It is also being used to identify brochures, reports, circulars, advertisements, maps, and planning charts.

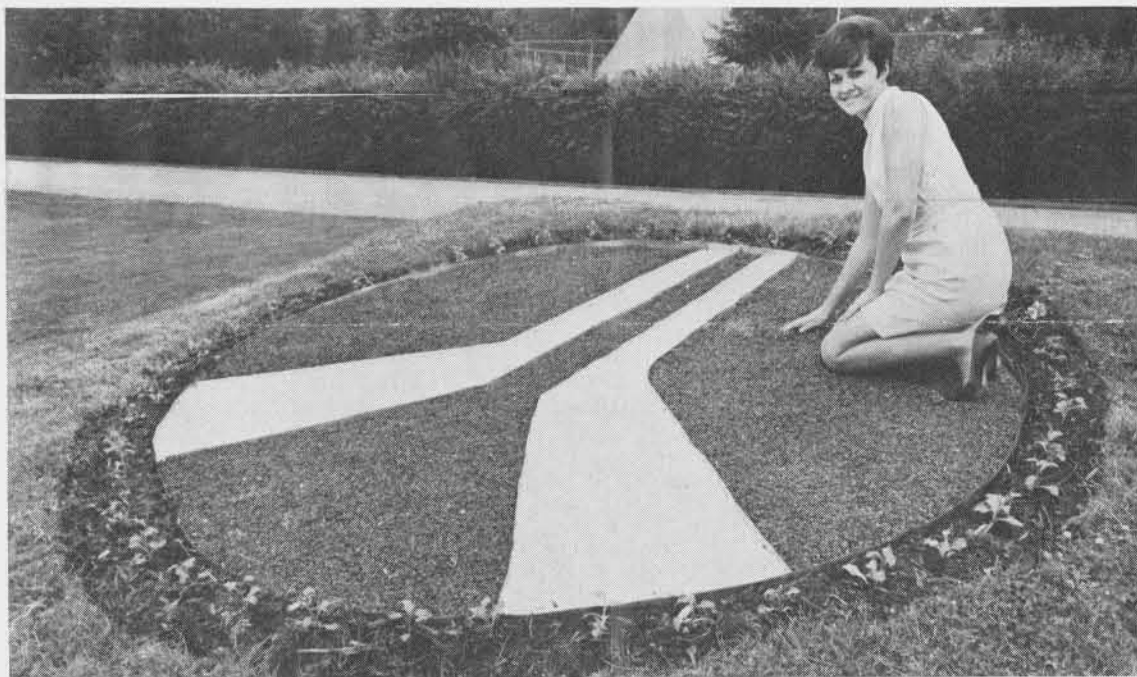
The emblem of North American Rockwell Corporation moves today across the world, a symbol of the company, for each of its divisions and facilities, and eventually for every major piece of moving equipment, publication, building, recreation park, product.

An insignia which is already becoming recognizable as marking North American Rockwell rather than being merely a new sign in the business world as it was a few months ago, it can be seen on many of the company buildings, flies with the company aircraft and identifies much of the company's rolling stock.

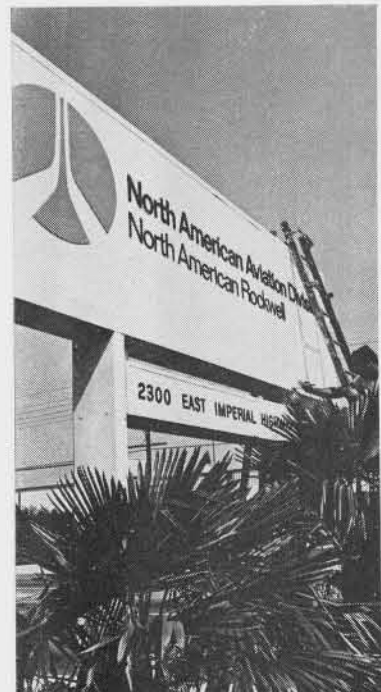
In offices, as above, and on many of the buildings, it has taken the place of the symbols of the companies from which North American Rockwell was formed in a gathering-together of the skills, technologies and diverse capabilities of industrial leaders in many fields.



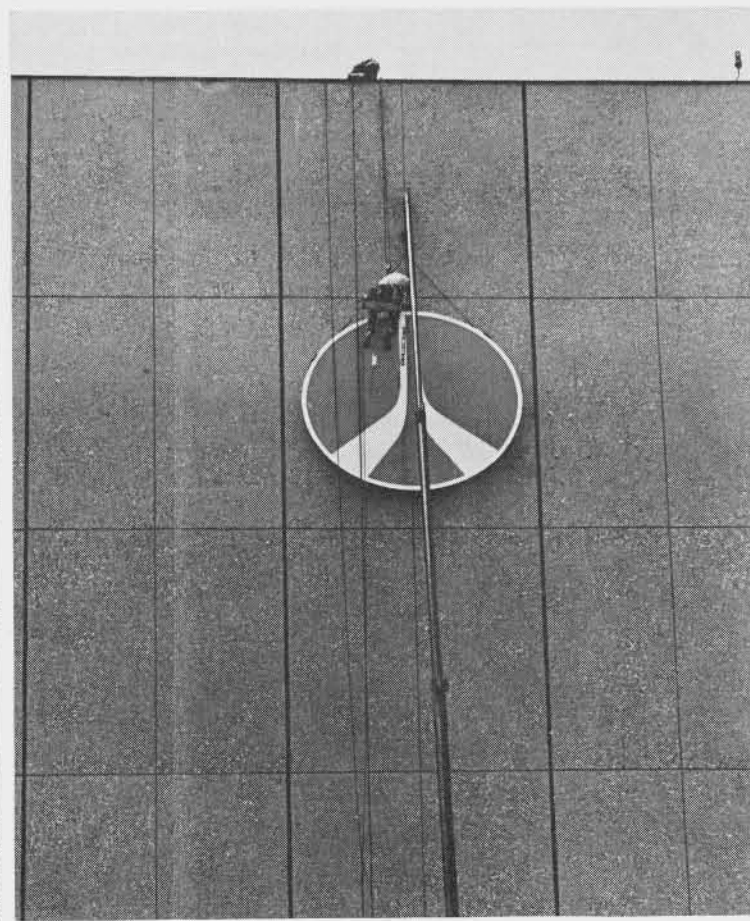
**VARIED APPLICATIONS** — There are literally hundreds of thousands of places where the insignia will appear, from hard hats — not normally worn by pretty secretaries, as above — to flags displayed on staffs at company sites throughout nation.



**FLORAL RECOGNITION** — At the Columbus Division Recreation Park the new symbol has been presented other than in paint and wood. The symbol is being used wherever NR can be identified.



**BUILDINGS** — Currently the new symbols are being placed in position on signs in front of most of the company buildings and various other facilities such as labs and test areas.





**IN APPRECIATION**—Ray Moore, senior project engineer, CSM Programs, presents plaque to Yajiu Yamada, chief instructor, in appreciation of 12 years of service to the Space Division Judo Club. The Club meets Mondays, Wednesdays, 5:30 to 7 p.m. at the Downey Rec Center. Employees and families may watch, join or take lessons. Information may be obtained from Ext. 3584.

*Classified Ads*  
FOR SALE

- AUTOS**  
 '60 Cad. Coupe de Ville, \$595, WA 3-5994.  
 '55 Chev. Bel Air, \$300, 865-0016.  
 '63 Chev. Pickup, \$800, 869-3971.  
 '62 Comet, 6 cyl., Std. Trans., 634-8769.  
 '46 Jeep, 66 eng., \$850, LU 1-5318.  
 '47 Jeep, \$1000, 284-4197.  
 '64 Monza, \$650, 862-3645.  
 '61 Olds. Conv., \$150, 923-3538.  
 '56 T-Bird, 431-4127.  
 '65 T-Bird, 714/637-9465.  
 '60 VW, \$495, 429-6289.
- MOTORCYCLES**  
 '67 Triumph 650 CC, Best Offer, 863-4892.
- APPLIANCES**  
 Kirby Vacuum & Attach, \$35, 378-6340.
- FURNISHINGS**  
 Babyline Crib, Mattress, \$10, 823-4924.  
 Westinghouse Refrig., UN 4-4858.  
 Deluxe Relaxchair, \$200, 714/494-2017.
- BOATS**  
 18' Inboard Boat, 376-8153.  
 38' Aux. Yawl-Partnership, 714/544-0423.
- STEREOS, TAPES, RADIOS**  
 Zenith Radio, Phono. Stereo Console, 925-7123.
- REAL ESTATE**  
 5 acres, \$7500 FP, 5% dn., close in, 714/846-2244.
- PETS**  
 12 wk. old Mynah Bird w/cage, \$40, 943-5065.  
 Min. Dachshund, AKC registered, 862-6858.
- MISCELLANEOUS**  
 Girl's Tandem Bicycle, HO 3-0720.  
 Stinger Bicycle, 421-2935.  
 VW Luggage Rack, 863-4485.  
 Exergenie, \$20, 596-0645.  
 Water Cooler, \$25, 585-8001.  
 Free: Pit-Type Trampoline, 714/893-7847.  
 Mark IV Auto Air Cond., 925-5440.

**Appreciation and Admiration Told by Dr. Mueller**

Dr. George E. Mueller, NASA's associate administrator for Manned Space Flight, has expressed his thanks and admiration for the work done by the teams that made the moon landing possible.

His statement read in part: Perhaps the greatest praise I can give them all is to say that they have proved with the ease that comes of long, hard work what we all instinctively knew: That man could successfully travel to another planet and return.

And because they have proved it, we now stand at what is undoubtedly the greatest decision point in history.

Four billion years ago the Earth was formed.

Four hundred million years ago life moved to the land.

Four million years ago man appeared on the Earth.

One hundred years ago the technological revolution that led to this day began.

All of these events were important. Yet in none of them did man make a conscious decision to follow a path that would change the future of all mankind.

We have that opportunity and that challenge today. For today, at 11:49 a.m. Houston time in the middle of the Pacific Ocean, we conclusively proved that man is no longer bound to the limits of the planet on which for so long he has lived.

We will return to the moon, first in November, and then at regular intervals in the coming years.

But these trips are only the first step. There remains for mankind the task of deciding the next step: Will we press forward to explore other planets, or will we deny the opportunities of the future.

To me the choice is clear. We must take the next step.

Should we hesitate to exploit the first step.

Should we withdraw in fear from the next step.

Should we substitute temporary material welfare for spiritual adventure, and long-term accomplishment.

Then will man fall back from his destiny, the mighty surge of his achievement will be lost, and the confines of this planet will destroy him.

**TRAVELING DISPLAY**

**Craftsman Ship To Emphasize the Individual**

The Space Division will be host next week in Seal Beach and Downey to NASA Marshall Space Flight Center's traveling display van dedicated to underscoring the importance of the individual in the Apollo/Saturn Project.

Preston T. Farish, manager, Manned Flight Awareness Office, MSFC, explained that "The major theme of the exhibit, known as the Craftsman Ship, is the necessity for craftsmanship in the performance of every task. This is explained in a taped message by Frank Borman, spacecraft commander of the lunar-orbiting Apollo 8 mission last Christmas.

"The Craftsman Ship is designed to impress on the visitor the magnitude of the total effort. It promotes an awareness of the vital relationship between individual performance, mission success and the safety of the astronauts."

A special display includes some of the 300 metal alloys and materials that go into the Saturn V and the Apollo spacecraft. Another area deals with the complexity and magnitude of the Apollo missions.

At Seal Beach, the display will be open Monday from 8 a.m. to 8 p.m. at the northeast corner of Bldg. 81. It will reopen at 10 p.m. at the northwest corner of Bldg. S-02 and remain open through the night to permit visits by personnel on the second and third shifts.

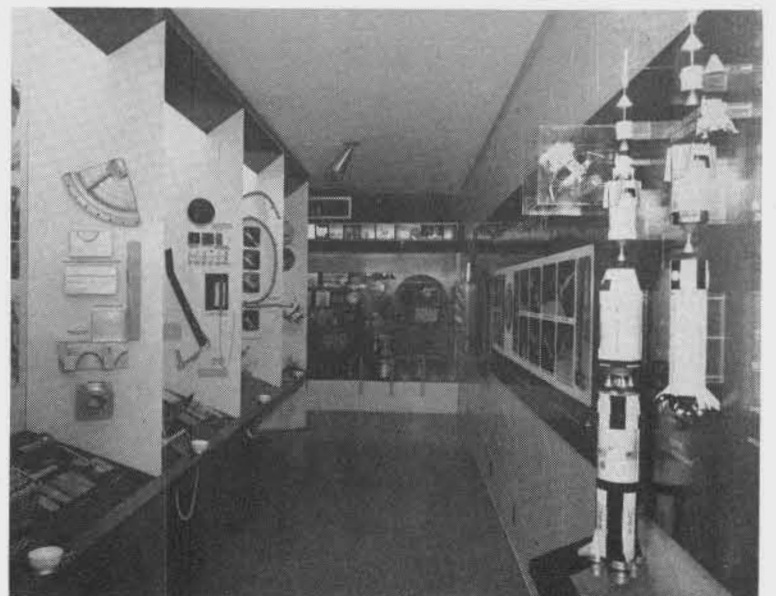
In Downey, the display will open at noon Tuesday near Bldg. 1 and remain open until 8 p.m., Wednesday in this location. It will open at 8 a.m. Thursday at Bldg. 2 and remain there until 9:30 a.m. Friday, Bldg. 5, it will be open Friday from 10:30 a.m. until 6 a.m. It will remain at Bldg. 5 Saturday and will be open for visits from employee families and friends from 9 a.m. until 2 p.m.



**ESPERANTO ANYONE?** — The Man on the Moon magazine, mailed to employees by the PRIDE Program Office, was distributed by United States Information Service in 24 languages to about a million persons in 110 countries. Indicating international scope, left to right, Manea Wyness, Public Relations; Linda Hudson, Betty Stiller, CSM Programs; Anita Rosales, PRIDE Administration. Magazine goes on sale in company cafeterias and surplus sales next month.



**CRAFTSMANSHIP**—Space Division will be host next week to NASA Marshall Space Flight Center's traveling display van dedicated to the Apollo/Saturn Project and the need for individual awareness of the vital relationship between employee performance, mission performance and safety of the astronauts.



**INTERIOR DISPLAY**—Spacecraft models and taped messages underscore the magnitude of the total Apollo/Saturn effort. The van will be open at Seal Beach all day Monday, Monday night through until 10 a.m. Tuesday, and in Downey at various locations beginning at noon Tuesday for the remainder of the week.



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