



APOLLO 8 STAMP — Downey Postmaster Stanley Powell, right center, makes first sale of Apollo 8 commemorative stamp to division President William Bergen. At left is Downey Mayor Scott Temple, who holds city proclamation declaring May 6 North American Rockwell Day in city in recognition of division's contributions to community and historic lunar orbit mission. At right is Ford Miller, NASA resident Apollo office at Downey.

MORE EDUCATION IS NEEDED, SAYS ROCKWELL, NOT LESS

Despite current troubles on college campuses, the ultimate solution to our racial problems is still more education not less, Willard F. Rockwell, Jr., chairman of the board of North American Rockwell Corporation, said last week.

Speaking in Columbus, Ohio, at the annual corporation luncheon of the United Negro College Fund, Rockwell said this country must move forward on two levels at once to give Negro people a larger stake in American life and draw them fully into the mainstream of the American economy.

Rockwell, who was chairman of the Pittsburgh Area 1968 UNCF Campaign, explained that "the long-range level lies in providing education to young Negro men and women and the short-range level lies in providing jobs to Negro unemployed and unemployables."

NAB Program

Among the important new programs to improve the American Negro's economic position, Rockwell pointed out, is the jobs program of the National Alliance of Businessmen.

In the spring of 1967 there was some cynical belief that this program was a "gimmick," he said, but "It must be obvious now that the NAB program is not a gimmick and something is happening."

Under the NAB program, he said, some 12,500 companies in the nation's fifty largest cities have made a concerted effort to hire hard-core unemployed and to keep them on the job. More than 85,000 are holding jobs today, he pointed out.

Companies are placing people now at the rate of about 20,000 a month nationwide, and the

'COSMOPOLIS' SPECIAL SLATED FOR MONDAY

"Cosmopolis," a North American Rockwell television special which received much governmental agency and critical acclaim when it first played in January, will be repeated in color on Monday, May 12, 10-11 p.m. Channel 7. This is one of the "Man and His Universe" series.

program is being extended from 50 to 125 metropolitan areas, Rockwell said.

Nartrans Organization

North American Rockwell has undertaken a hard-core employment program on its own that has excited some national attention, he noted. Under this program, the subsidiary company called "Nartrans" was established to train and provide jobs for the hard-core unemployed.

Increased Goal

Nartrans opened for business last June.

"I'll say flatly now that this venture has been a success in its first year," Rockwell said. "We had been told, for example, to expect 20 percent lost time due to absence and tardiness."

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Meechan Named Vice President — Industrial Systems

Charles J. Meechan has been named vice president—Industrial Systems, for the Aerospace and Systems Group.

In his new position, Meechan will coordinate the A&SG activities involving technological interchange between the widely varying operations of the two principal groups of the corporation, the Aerospace and Systems Group and the Commercial Products Group. He will continue to report to B. D. Haber, senior vice president—Research & Engineering, A&SG.

Meechan joined the company in 1951 as a research scientist in the Aerophysics Laboratory and subsequently held similar positions at the company's Atomic International Division and Science Center. In 1963 he was named research advisor to the vice president—Research & Engineering.



Ritual Marks First Day Sale of Apollo Stamp

Local "first day" sales of the Apollo 8 commemorative stamp were opened Tuesday with a special ceremony hosted by the Space Division.

Division President William Bergen obtained a sheet of stamps honoring the historic moon orbiting flight from Downey Postmaster Stanley Powell.

Official U.S. Post Office Department "first day" sale was at Houston, Texas, the home of NASA's Manned Spacecraft Center, director of the Apollo spacecraft program.

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Clark Appointed to Washington A&SG VP Post

William L. Clark has been named vice president — Washington Office, for the Aerospace and Systems Group, effective May 15. He replaces W. O. Ritter, who has accepted a position with another company.

Since 1967 Clark has been A&SG vice president — Contracts. He joined the company in 1953 as resident attorney after being associated with Chadbourne, Parke, White-side & Wolff, then general counsel for the company. He was appointed assistant general counsel in 1955 and assumed his vice presidency shortly after the merger in 1967.

Clark is chairman of the Aerospace Industries Association Procurement and Finance committee and a member of the advisory board of the Bureau of National Affairs Federal Contracts Report.



SKYWRITER

NORTH AMERICAN ROCKWELL CORPORATION
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Apollo 10 in Spotlight as CDDT is Completed

Rehearsal Ends for Pre-Launch Countdown

Apollo 10 has moved into the glare of center stage following the completion this week of its countdown demonstration test (CDDT) pre-flight "dress rehearsal" — one of the last major milestones leading to the planned May 18 lift-off.

The CDDT simulates the full pre-launch countdown, including the fueling of the giant Saturn V launch vehicle.

During the test, the countdown is picked up about 100 hours ahead of launch and runs through just seconds prior to lift-off. The important test insures the compatibility of all systems in the launch vehicle and spacecraft, and enables the launch team to check out affected ground support equipment and the timing of the operations leading to launch.

The CDDT is performed in two phases, a "wet" test in which the fuels and propellants are loaded, and a "dry" CDDT after the propellants and fuels have been drained. The operation is then recycled for the start of the actual prelaunch countdown.

Taking part in the "dry" portion of the test were Apollo 10 prime crewmen Tom Stafford, John Young and Gene Cernan, and the backup team of astronauts Gordon Cooper, Donn Eisele and Ed Mitchell.

Stafford, in an earlier inter-

(Continued on Page 2, Column 2)

CENTER ENGINE ON S-II-5 STAGE TO BE SHUT DOWN EARLY

One of the engines powering the division-built Saturn S-II-5 stage will be intentionally shut down about 80 seconds early during the boost phase of the Apollo 10 flight, according to NASA.

The center engine of the million-pound-plus stage will be switched off to suppress longitudinal oscillation, or vibration, which occurred late in the S-II burn period during the Apollo 8 and Apollo 9 flights.

NASA officials said the slight vibration has been found to be associated only with the center engine, and is limited to the final moments of stage operation. They also noted that the problem has not been detrimental to the operation of the stage.

The Apollo 10 mission is expected to continue as planned by burning the S-II's four outboard engines about 15 seconds longer to compensate for the center engine thrust loss. Also, said NASA, the Saturn V launch vehicle guidance system has been programmed to steer in accord with the "engine out" plan.

Feasibility of the plan was strengthened April 8 when the center engine of the S-II-8 stage was successfully shut down early without adverse affects during a static firing test. The successful test, at NASA's Mississippi Test Facility, helped engineers with the decision to shut down early on the Apollo

(Continued on Page 2, Column 1)



COUNTDOWN — Countdown operations leading to static firing of Saturn S-II-8 stage at NASA's Mississippi Test Facility hold attention of, from left, division's Hugo Fruehauf; R. A. Bush of NASA; division's Joel Estes at console and Charles Allen. Successful test in which S-II-8's center engine was cut-off early led to decision to follow same procedure on S-II in Apollo 10 flight to suppress longitudinal oscillation (vibration), encountered in Apollo 8 and Apollo 9 missions.

Engine Shutdown . . .

(Continued from Page 1, Column 5) 10 flight while work continues on a hardware "fix" which will avoid the early cutoff. The test at MTF was performed by division Mississippi Test Operations engineers and technicians headed by director Charles Allen. The recommendation for the early center engine cutoff was made by Lee James, Saturn V program manager for NASA's Marshall Space Flight Center, during a review following the static firing test.

Apollo 10 . . .

(Continued from Page 1, Column 4) view, told newsmen that the eight-day Apollo 10 mission is designed primarily to "tie together all the knots that we have had in the past, sort out all the unknowns and actually pave the whole way for the lunar landing mission." Apollo 10, said Stafford, will follow the same operations and timelines, "exactly as the landing mission," with the exception of the actual descent and touchdown on the surface, and then ascent back into lunar orbit.

Proposal Preparation Training Course Presently Under Way

A Proposal Preparation Training Course has been developed to aid the persons involved in the management and development of Space Division bids for new business. The comprehensive, 22-hour course was initiated by J. E. Franklin, vice president of Advanced Programs, and was developed under Hy Silver, of Advanced Programs in conjunction with Manpower Development. Initial session of the 11-week course was opened last week by E. E. (Pete) Clark, assistant division director of Advanced Programs. Clark stressed the importance of superior proposals as one of the key elements in securing new business.

Covered in the course are all aspects of proposal preparation, from pre-proposal planning and customer analysis, to source selection, fact finding and negotiations. In emphasizing the need for the course, Franklin noted that, "The programs in which we are now participating and which are representative of the future will require an extremely high degree of proposal sophistication. "This is due to the ever increasing competitiveness of the space industry and the continually improving proposal techniques of our competitors," he said. "In recent years, theories and practices of proposal preparation in the aerospace industry have undergone radical changes in terms of proposal detail, complexity and accuracy. New trends have replaced old rules. "For these and other reasons, it will be useful for our personnel involved in the development of proposals to review the elements that go into winning contracts and the know-how to utilize these techniques for optimum effectiveness," said Franklin.

Constanza Session Chairman

Leo Constanza, member of the Technical Staff, Laboratories and Test, last week chaired a session devoted to "Tooling Concepts and Methods of the Future," at the Society of the Plastics Industry 26th Annual Western Section Conference in Coronado.

Rockwell on Education . . .

(Continued from Page 1, Column 2) ness, but the actual figure has been less than nine percent." The effort to train workers and create jobs, however, is not enough, he said. "In short, the

jobs program is fine for the problems of today's unemployables, but it's no assurance that we won't have unemployables 10 years from now, and 20 years and 30 years."



PROPOSAL PREPARATION—E. E. Clark, right, assistant division director of Advanced Programs, opens first session of new 22-hour division course on proposal preparation. Course covers all phases of proposal preparation from pre-proposal planning to analysis and final negotiations.

Checkout Personnel Commended for Early Completion of S-II-9 Check

Saturn S-II Stage Checkout personnel at Seal Beach have been commended for their outstanding accomplishments in the ahead of schedule systems checkout of the S-II-9 stage. The team, headed by Manager Mel Petersen, did the work in 24 days — six days ahead of their internal schedule and in almost one-third the 70 days required to check out the first S-II flight stage. The S-II-9 stage left Seal Beach for NASA's Mississippi Test Facility on March 25. It currently is being prepared for an acceptance static firing test prior to being shipped to Kennedy Space Center, where it will be mated in a Saturn V launch vehicle. Work of the Stage Checkout team drew the praise of Werner Gengelbach, manager of NASA Marshall Space Flight Center's

resident S-II office at Seal Beach, and Gerry Wilson, manager of Test Operations at the division's Mississippi Test Operations. The "remarkable achievement" of the team was cited as a tribute to the consistent improvement and efforts of all Station 8 and 9 personnel by Milo Olsen, director of S-II Test Operations. "They have continued to improve their operations and, even more important, are a well-organized group of expertly trained persons who have learned to work together effectively as a total checkout team," said Olsen. Coming in for special honors was the Electrical/Instrumentation team under Supervisor Howard Koch, which earned Stage Checkout's "Effectiveness Stage" award. The trophy is presented following the conclu-

sion of checkout operations on each stage to the team which achieves the highest degree of job proficiency in its work on the stage. Petersen headed the S-II-9 test team with the assistance of Bob Lugibihl, senior test project engineer; Gale Waite, chief of Test Engineering; Ken Earle, general supervisor of Technician Support, and Bob Meece, chief of Night Operations. Assistant test project engineer for the S-II-9 checkout was Ray Searcy and stage test conductors were Paul Frees, Park Riggs, John Jones, Marv Hall and Jerry Barrett. Assisting in the coordination and planning were staff members Jim Stead, Phil Allenbach and Al De-Araujo. Supervisor Wilbur Marsh headed Technician Support. Di-

recting the Test Operations checkout teams were supervisors Howard Koch, Electrical/Instrumentation; Keith Settles, Mechanical; John Mesmer, ACE/GSE; Dale Ewald, second shift Mechanical/Electrical/Instrumentation, and Norm Rossi, Test Documentation Control. Quality Assurance support to the teams was directed by Bob Strand, chief of Test Quality Assurance, and supervisors Fred Prough and Bob Soler. Test Quality Engineering crewmen were headed by Supervisor Bob Parker. Coordinating Manufacturing operations were Jim Herriage, S-II Final Systems Installation, and Bill Schafer, S-II Stage Insulation. Providing Logistics support were Mike Parra and Nelson Guill of S-II Field Support.

BREVARD CO., HOUSTON

Apollo Radio Report Set for Florida, Texas

Complete round-the-clock coverage of Apollo 10 pre-launch, launch, flight and recovery activities will be broadcast for the third time over FM radio stations in the Kennedy Space Center, Fla., and Houston, Tex., areas under company sponsorship. The special reports will be carried over WCKS-FM in Brevard County, Fla., and over KMSC in Houston, Texas. Both programs are being coordinated for the Public Relations Dept. by Al Lurie of Television Operations, who also will provide support for both stations. WCKS-FM has set up a special news trailer at KSC's Launch Complex 39 press site to cover all news activities on launch day, then will switch back to its studio headquarters for the flight. KMSC flight coverage will emanate from NASA's Manned Spacecraft Center, which is headquartered in Houston. Both stations will cover all NASA news briefings and announcements on the flight and will give special hourly status reports. The company-sponsored radio coverage for the Apollo 8 and 9 flights was given wide acclaim by residents and newsmen alike in both areas.

Special Stamp . . .

(Continued from Page 1, Column 3) Adding further to the day was the Downey City Council's declaration of May 6 as North American Rockwell Day in Downey. Mayor Scott Temple presented a framed copy of the official proclamation to Bergen during the ceremony. The proclamation was in recognition of the contributions of the division and its employees to the success of the Apollo 8 flight and to the community. Also taking part in the ceremony were Downey City Manager Oren King and Ford Miller, representing the Manned Spacecraft Center's Downey Resident Apollo Spacecraft Program Office. Based on one of the "Earthrise" photographs taken as Apollo 8 orbited the moon, the six-cent commemorative stamp has the gray lunar surface in the foreground, dark blue outer space in the center, and the white cloud-covered light blue Earth in the background.



TOP CHECKOUT TEAM—Electrical/Instrumentation team earned Saturn S-II Stage Checkout's "Effectiveness Stage" award for performance in checkout of S-II-9 stage. In left photo, Manager Mel Petersen, right foreground, presents



trophy to Supervisor Howard Koch as first shift team members watch. At right are members of second shift crew. Entire Stage Checkout organization has been commended for accomplishments in ahead-of-schedule checkout of stage.

NARTRANS HELPING MANY, PROVIDING PRODUCTS, SERVICES, JOBS

North American Rockwell is operating a company deep in the industrial heart of Los Angeles that is training the hard core unemployed to be fully qualified productive workers with skills in demand by industry.

The subsidiary is called "NARTRANS," which stands for North American Rockwell Training and Services. It also stands for a significant successful effort in helping disadvantaged minority group people to help themselves.

Nartrans products and services are being used by all NR Southern California divisions and are available to other companies. Quality control require-

ments at the company are high, with a goal of less than one percent error as the established policy. The organization is certified to the same skill level that is required of all North American Rockwell suppliers.

The subsidiary produces in seven skill areas, including machining, tool and drill sharpening, wood and plastic products, drafting, typing and keypunch operations.

Nartrans already is providing a number of products and services for the Space Division. These range from keypunch and typing work to pallets for the warehouse, picture frames, drafting updates, drawings, tool grinding and plastic-covered three-ring

binders.

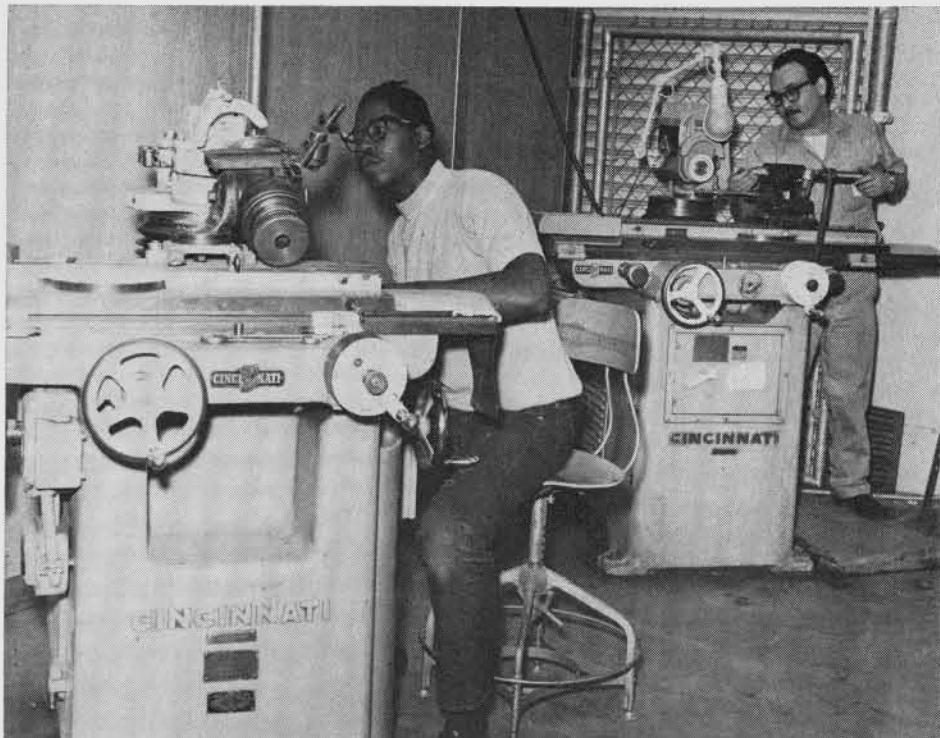
Methods of initiating the procurement of products or services from the company subsidiary are outlined in Policy G-14 of the division Policy Manual.

Providing liaison between the division and Nartrans are four coordinators. Headed by Steve Nelson, division director of Material, the men are J. E. Adams, director of Distribution and Traffic; J. E. Blain, general supervisor of Division Purchasing, and Alex Walker of Material Administration. Walker, on Downey Ext. 1451-2-3, specializes in providing Nartrans product and service information.

The photos below highlight Nartrans skill areas.



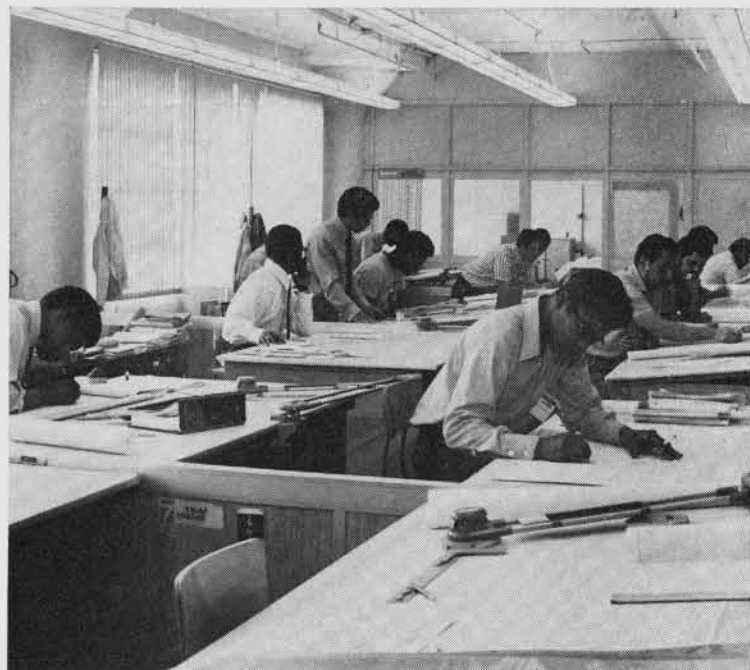
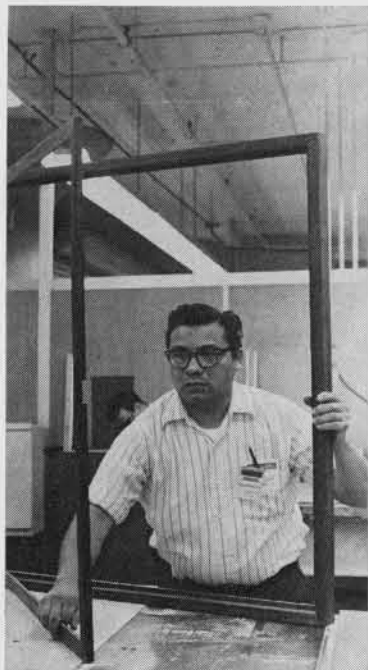
DATA PROCESSING, GRINDING—Data Processing section is equipped with 50 keypunch and verification machines and operates seven days a week.



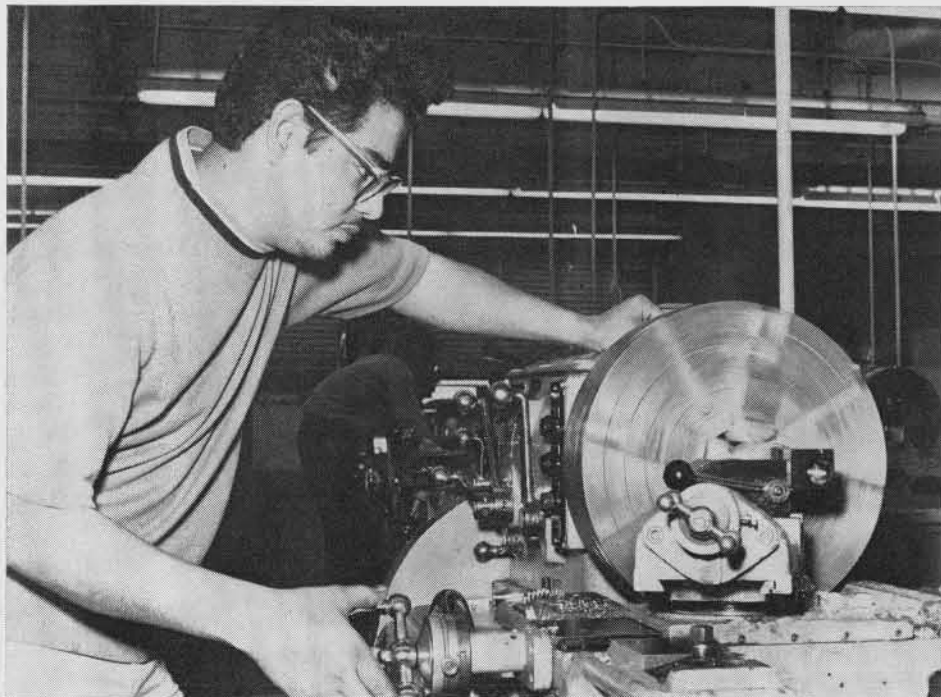
Grinding shop personnel, right, precision-grind metal cutting tools. The shop is equipped to sharpen all kinds of drills, end mills, taps, dies, reamers, punches.



TYPING, WOOD PRODUCTS, DRAFTING — Typing has quick turnaround capability. Principal products are technical publications, specifications, reports. Wood Products shop, center, is general-purpose operation which fabricates many



different kinds of products. Drafting section, shown in photograph at right, produces electrical and pneumatic schematics, logic and block diagrams, facilities drawings and graphics, updates drawings through change in engineering orders.



MACHINE SHOP, PLASTIC PRODUCTS — The machine shop is equipped with lathes, mills, drill presses and saws. Operator capabilities are excellent for



production of small, non-complex parts. Plastic Products shop is set up mainly to produce plastics products including binders, portfolios, envelopes.



TU AWARDS—Norm Ryker, left, vice president of Research, Engineering and Test, presents Technology Utilization Award plaques to department heads whose functions led their major organizations in reporting TU items during past year. From left are Doug Chidley, Central Manufacturing; Ray Martin, Central Quality and Reliability Assurance; Hal Raiklen, Saturn S-II Engineering; William Scott, Apollo Manufacturing and Dr. W. H. T. Loh, RE&T. Space Division has submitted more than 6,000 items to NASA to date under the space agency's TU plan.

American Society for Quality Control Holds 23rd Conference

Members of the American Society for Quality Control capped their three-day 23rd Annual Technical Conference and Exhibit with a tour of the division's Downey facility Tuesday afternoon.

The conference this week was presided over by Tom McDermott, division vice president of Quality and Reliability Assurance and ASQC national president.

Taking part in the event were R. L. Eaglen of Saturn S-II Q&RA and Dana Cound, manager of Q&RA Administration. Eaglen presented a paper on the "Saturn Primary Weld Structure Inspection Program," and Cound headed a training course on "Quality Assurance and Reliability Management."

Greeting visitors Tuesday on behalf of the division was Ray Martin, director of Central Q&RA. John Healey, vice president of Manufacturing and Facilities, highlighted the Apollo program and presented a division-produced film on the lunar landing mission.

A five-man panel then fielded questions from the floor on the

Apollo program. B. J. Long of Advanced Programs was moderator and headed the panel including Gerry Wheeler of Apollo Flight Plans and Procedures; S. I. (Jose) Jimenez, Apollo Logistics Training; Bob Eggert, Public Relations; and Bill Grifall of Marketing.

First Aid Station To Move to New Location

The First Aid Station in Bldg. 1 at Downey will be in a new location beginning Monday, the Medical Department said.

Now at grids N-10 and E-55, the station will be relocated to the south, down the same main aisle to grids S-15 and E-54. The station will continue to remain open 24-hours daily, Monday through Friday.

Staffing the station are registered nurses Doris Severine and Toni Mastren on the first shift; Mary Ruedlinger on the second, and Edna LaRose on the third shift. Telephone for the station is Ext. 6580.

Hooper Article in 'Contact'

"Las Vegas Convention," an article by Jim Hooper of Apollo Applications Program, appears in the March issue of *Contact*, the monthly publication of the Christian Business Men's Committee International.

The magazine is distributed throughout the U.S. and in 19 other countries. The article deals with a man whose rebirth of faith led him to becoming the president of his own company after going to jail, using narcotics, and losing his wife and two children.

Classified Ads

- FOR SALE**
- AUTOS**
- '67 Cougar, air, AM/FM radio, tilt steering, tinted glass, Clark (D), 322-9242.
 - '62 Mercury Comet S22, \$500. Montgomery (D), 474-8301.
 - '67 Chevelle, R/H, Bucket seats, TO 1-6983.
 - '66 Impala, Convert., \$1200, 714/644-1789.
 - '59 El Camino, \$595, 925-9218.
 - '58 Chev Pickup, \$500, 696-4931.
 - '56 Chev, 2 dr., Hdtp., 866-7477.
 - '65 New York 4 dr., Hdtp., \$1895, 714/543-5301.
 - '64 Ford 9-Pass. Wgn., 679-3501.
 - '64 Ford/Camper, \$2800, 861-0249.
 - '61 Comet Sta. Wagn., 860-3264.
 - '60 Falcon, w/63 V8, UN 4-8185.
 - '56 T-Bird, Hdtp., 431-4127.
 - '29 Model "A" Rdstr p/u, 714/828-0324.
 - '67 Dodge Dart, 213/293-4073.

- FOR SALE**
- AUTOS**
- '61 1/2 T Dodge Truck, 714/847-9846.
 - '64 VW w/sunroof, \$995, TO 6-8133.
 - '62 VW Sedan, 862-6369.
 - '63 Rambler Wagn, \$525, 714/846-2553.
 - '61 Rambler Wagn, \$150, 714/962-5426.
 - '68 Pontiac Fire Bird 400, a/c, 714/525-8414.
 - '65 Bonneville, P/S, P/B, R/H, \$1050, 714/531-4692.
 - '66 MGM, \$1695 or best offer, OS 5-5075.
 - '62 Austin Healey, R/H, \$100, 714/675-3180.
 - 15' Travel Trailer, 868-3351.
- MOTORCYCLES**
- '68 Honda, CB-160, 714/897-3917.
 - '66 Honda, S90, 421-2935.
- APPLIANCES**
- Stove, O'Keefe & Merritt, 213/295-5785.

HOUND DOGS WIN PRAISE

The following letter has been received from Major General George M. Johnson, Jr., commander of Air Force Logistics Command's Oklahoma City Air Materiel Area, Tinker Air Force Base, Okla., concerning the Hound Dog launch program, by President J. L. Atwood (the missile was initially built at the Downey plant):

It is with great pleasure that I extend to you my congratulations for the successful launch of the AGM-28B Missiles. This is a further demonstration of the reliability which can be attained in our most vital weapon systems through the cooperative efforts of industry and Air Force.

I am most pleased with the manner in which the AGM-28B IRAN and Launch Programs have met their objectives. The tremendous job of joint scheduling and control to overcome problems and achieve success in such demanding programs where quality and craftsmanship are of paramount importance not been lightly evaluated. My Command, as Systems Manager for this weapon system, is extremely proud to have been associated in this effort with two organizations displaying such a high degree of professionalism. Our contributions to this program are magnified greatly by your successful completion of the launch program.

Please convey my congratulations to all your personnel who have worked so tirelessly to insure that commonality of goals and objectives were achieved in an efficient fashion.

New, Faster Method Employed for Obtaining Warehouse Items

A new, faster method of obtaining Warehouse items on Material Order forms will go into effect Monday at Downey and Seal Beach.

With the new system, requestors need only fill out the Material Order (Form 918L) and place it in a specially marked slot at the Mail Room, said Ray Comer of In-Plant Material Handling. The forms should not be placed in envelopes, but just filled out and put in the special slots.

In-Plant Material Handling will pick up the forms daily and take them to the Warehouse where the order will be filled. The needed supplies then will be automatically delivered back to the requesting department, said Comer.

The new plan is expected to save the requestor time and reduce by more than half the five-day turn-around time formerly needed in filling Material

Orders.

Comer emphasized that items stocked on the Rapid Issue Mobile Tram are excluded from the new system. It includes such items as stationery, forms, and other special Warehouse supplies.

Roger Marshall Gives Paper

Roger Marshall, supervisor of Non-Destructive Testing, presented a paper on "Apollo Non-Destructive Testing," last week in San Antonio at the 7th Symposium on Non-Destructive Evaluation of Components and Materials in Aerospace Weapons Systems and Nuclear Applications was sponsored by Southwest Research Institute.



SECRETARIAL HONOREES—Two division women earned honors in National Secretaries-week connected contests sponsored by local radio stations. In photograph at left, Olivia Nelson of Apollo Engineering shows boss George Lehman letter informing her of her selection as "Career Girl of Day" in event sponsored



by station KLAC. At right, Helen Flournoy of Advanced Programs happily holds cup presented her as one of prizes for placing third in "Southland Secretary of Year" contest sponsored by station KMPC. With Helen are boss, Hy Silver, center, and KMPC personality Geoff Edwards. Both were nominated by bosses.

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