

Astronauts Achieve Great Goal



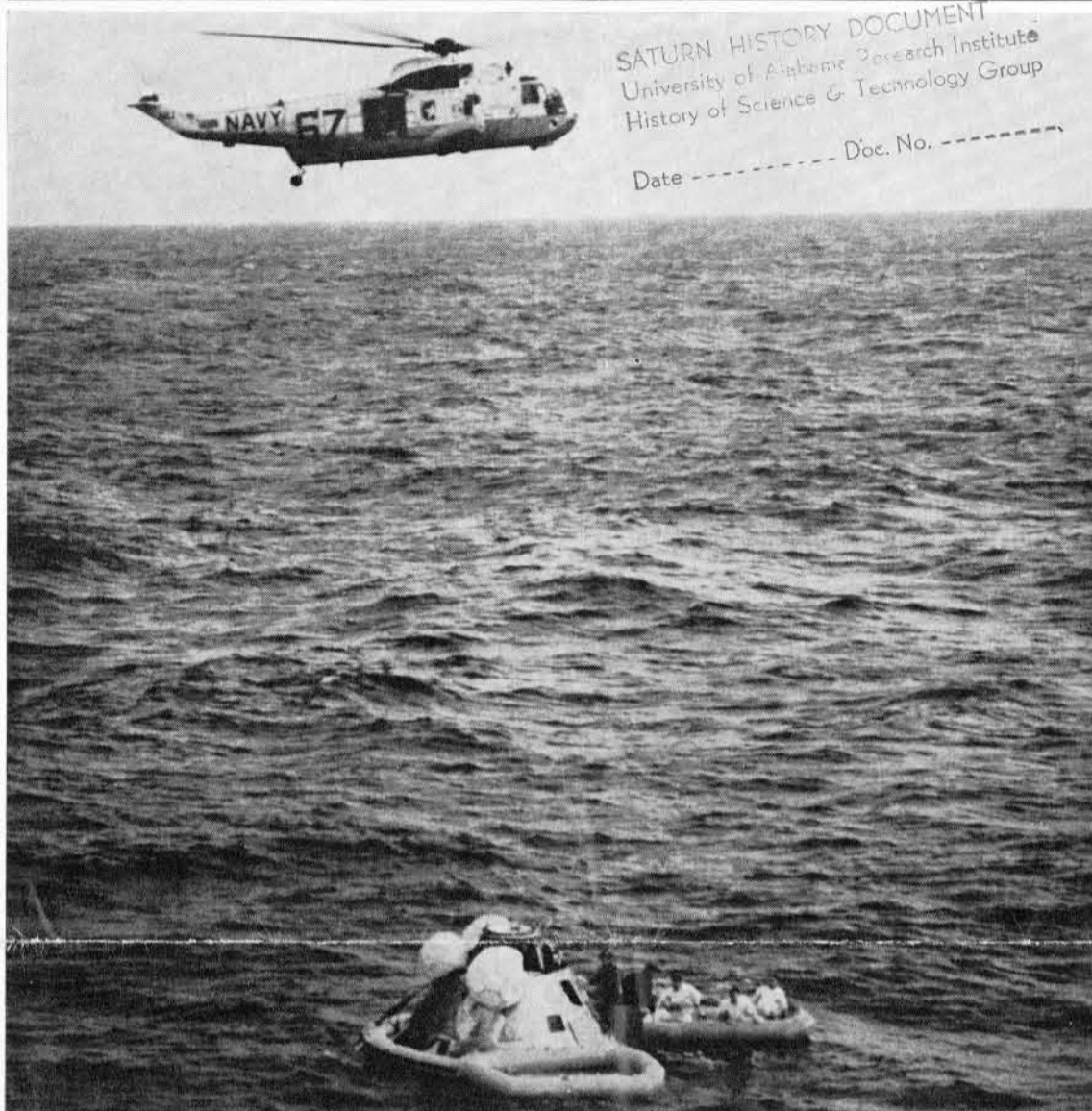
SPACE DIVISION

Skywriter

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JOURNEY'S END — Apollo 8 astronauts Borman, Lovell and Anders, await pick-up by helicopter from USS *Yorktown* after their pre-dawn splashdown in the Pacific, about 1,000 miles south-southwest of Hawaii. Astronauts landed within 6,000 yards of *Yorktown* after their historic 147-hour, half-million-mile lunar-orbital voyage, which is being hailed as a milestone in man's achievement.

NR Named One of Three F-15 Winners

The U.S. Air Force this week awarded contracts to North American Rockwell and two other companies for first-phase development of the ZF-15 advanced air superiority fighter aircraft. The plane was formerly designated the "FX."

Design funding and production data developed under the contracts by the three firms will be evaluated by the Air Force, with one company named to produce the new F-15 aircraft. Contracts totalled \$28.8 million. No breakdown of dollars to individual companies was released in the AF news announcement.

Contract definition work at

NR will be performed by the North American Aviation Divisions organization (NAAD), headed by W. A. Davis. R. H. Kemp is NAAD F-15 program manager.

If the company wins the production contract, the Los Angeles Division will do the work.

The F-15 will be a highly maneuverable single-place twin-engine jet fighter, which is expected to become operational in the mid-1970s. Requests for contract definition proposals were issued to eight aircraft companies last Sept. 3 with the winners named New Year's Eve.

(Continued on Page 4, Column 5)

To All Employees:

From the on-time lift-off to the precision splashdown of Apollo 8, the Saturn second stage and the Apollo command and service modules performed flawlessly. Apollo 8 was even better than Apollo 7's 101% performance last October. Each of you can be proud of the fruits of your efforts. Your work has been noted and appreciated by the entire world.

We must remember, however, that Apollo 8 is just a beginning, and future flights will be even more complicated and demanding.

Within a few days Apollo 9 will be rolled to the launch pad at Cape Kennedy for its flight in late February. All of us must dedicate ourselves to making sure this and every subsequent flight to the moon is equally successful.

W. B. Bergen
President
Space Division

A Satellite is a Satellite

When in lunar orbit, the Apollo spacecraft was a satellite of a satellite of a satellite. The spacecraft was a satellite of the moon, which is a satellite of the Earth which is a satellite of the sun.

Moon Brought Near by Apollo 8 Mission

Borman, Lovell and Anders Carve New Niche in History

Mankind has crossed the threshold of outer space and one of the great adventures of all time ended successfully when the Apollo 8 spacecraft splashed down in the Pacific last Friday.

Astronauts Frank Borman, Jim Lovell and Bill Anders and their Downey-built spacecraft landed in the Pacific Ocean at 7:51 a.m., PST, six days after the Dec. 21 lift-off from Cape Kennedy. The spacecraft set down with amazing accuracy less than four miles from the primary recovery ship, the USS *Yorktown*, after a half-million-mile journey through space.

The Apollo 8 spacecraft has been returned to Downey and, through arrangement with NASA, will be available for viewing by NR and NASA employees and their families.

It will be on display at Bldg. 47, from 6 to 10 p.m. today and from 9 a.m. to 5 p.m. tomorrow and Sunday.

Parking will be in the southeast lot, which may be entered from Imperial Hwy., between Bellflower and Clark. From there visitors will walk through gate 45B. Directional signs will be posted.

The spectacular success of the Apollo 8 mission is expected to make safer and easier the national goal of landing the first men on the moon and returning them safely to earth this year. It will bring closer the day when astronauts and scientists may unlock the secrets of the moon, which have puzzled earthlings since the dawn of intelligence. The moon may be a Rosetta stone of our universe.

The near-perfection of the mission began under a clear Florida sky precisely on schedule at 4:51 a.m. PST, Saturday, (Continued on Page 4, Column 4)

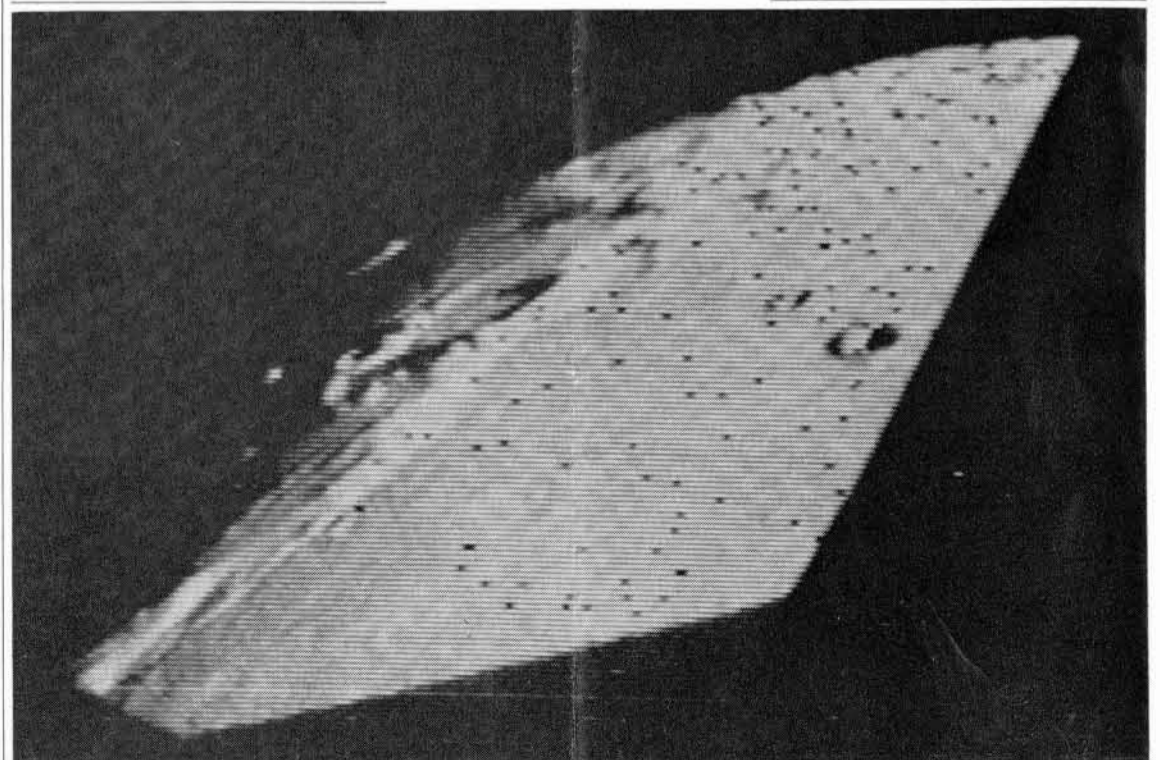
Gilruth Praises Men, Women of Space Division

The fantastic performance of Spacecraft 103 in the Apollo 8 flight is a great tribute to everyone at Space Division, Dr. Robert Gilruth, director of NASA's Manned Spacecraft Center, said in a news conference following splashdown of the dramatic lunar orbit mission.

Dr. Gilruth praised the pre-flight work for the mission done at NASA's Kennedy Space Center as being "well nigh perfect," and hailed the magnificence of the astronaut crew. He added that the flight itself was fantastically accurate.

George Low, manager of MSC's Apollo Spacecraft Program, also commended division personnel in emphasizing the excellence of the flight. "The spacecraft performance was far better than we had any right to expect," said Low, who added that this was a credit to the pre-flight testing done by the division to assure NASA top hardware.

Maj. Gen. Samuel Phillips, NASA Apollo program director, called the Apollo 8 mission a major step toward a U. S. manned lunar landing. The flight, he said, clearly demonstrated the ability of both the Apollo spacecraft and the Saturn V launch vehicle to perform all operations (Continued on Page 4, Column 5)



MOON FROM APOLLO 8 — Taken from about 70 miles above the lunar surface Christmas Eve by Apollo 8 astronauts, this photograph was sent with the prayerful wish, "And from the crew of Apollo 8, we close with good night, good luck, a Merry Christmas, and God bless all of you on the good Earth." This picture was transmitted via NASA's Goldstone Tracking Facility, Calif.

THREE MEN IN A SPACESHIP, WITH THOUSANDS BACKING THEM UP, ATTAIN GREATEST GOAL



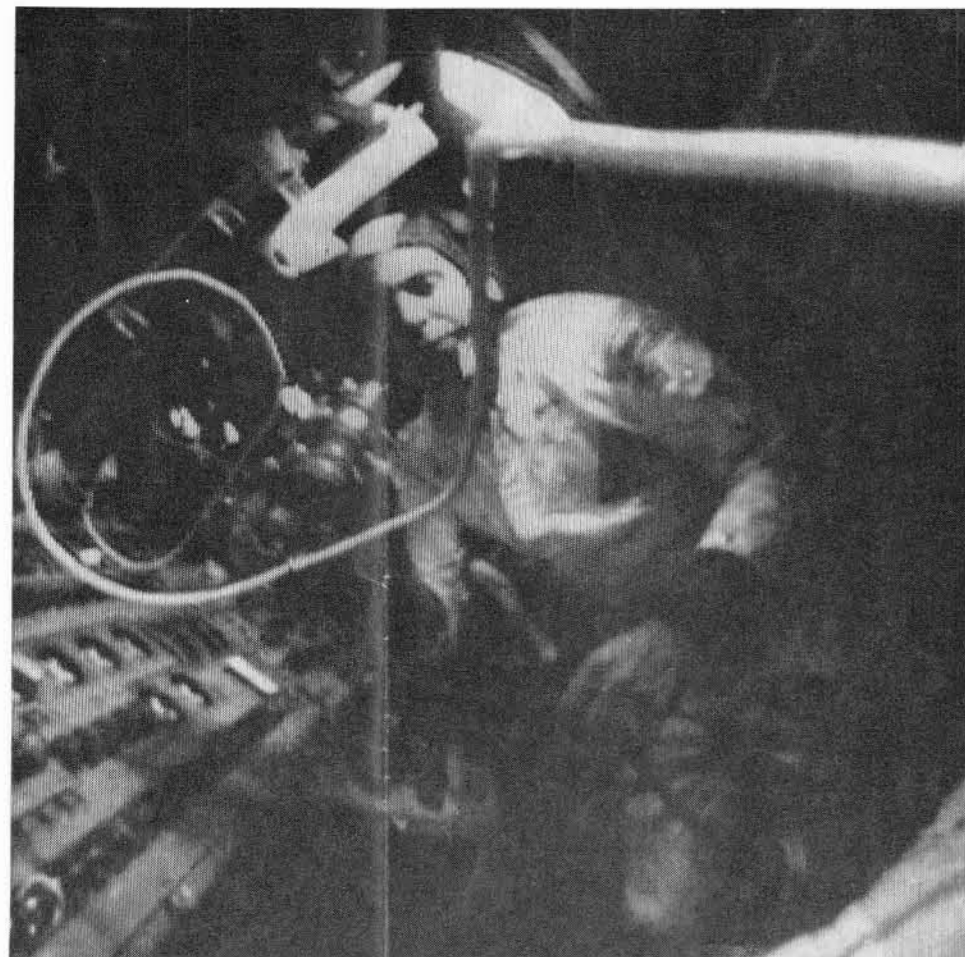
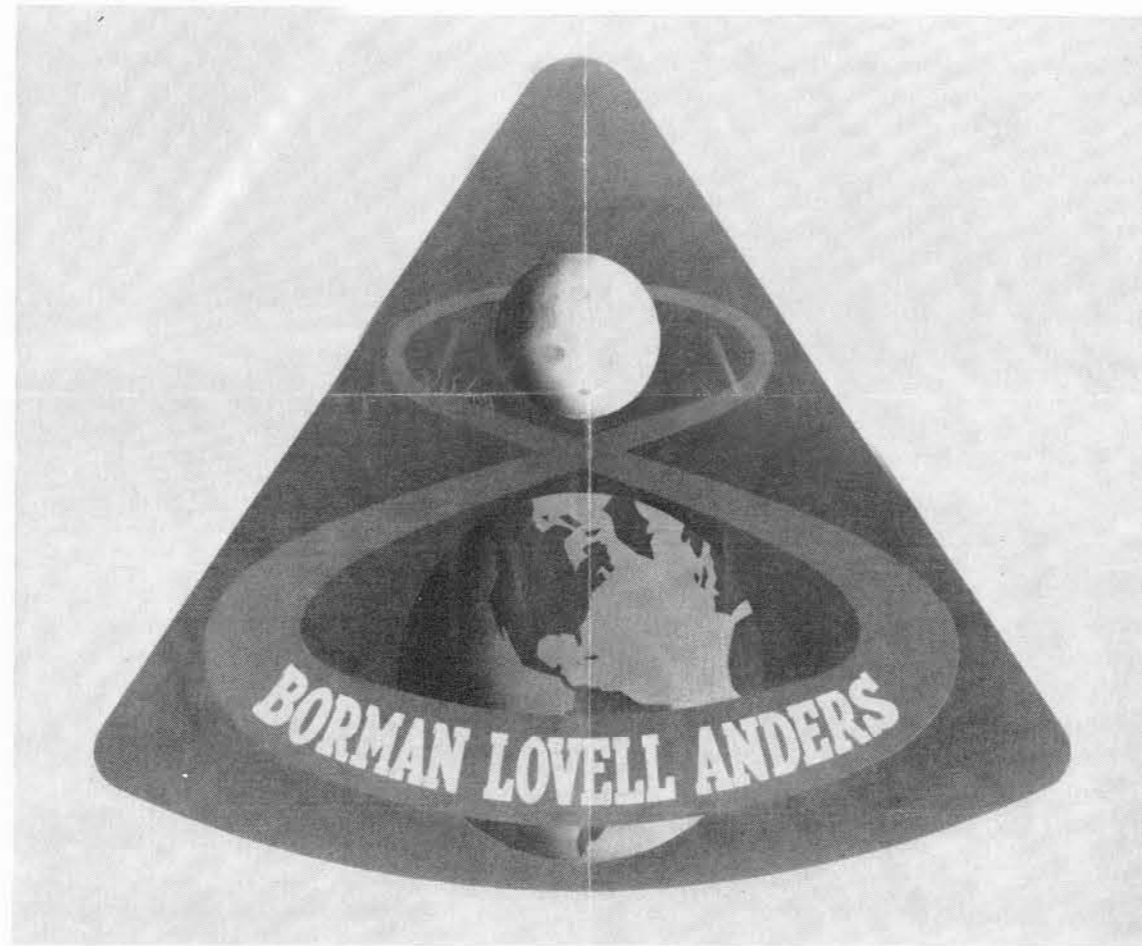
NIGHT LIGHTS — Searchlights at NASA's Kennedy Space Center's Launch Complex 39A illuminate 363-foot high Apollo/Saturn V launch vehicle that powered astronauts Frank Borman, Jim Lovell, Bill Anders into space on historic 147-hour mission that took first men into lunar orbit.



GETTING READY — Technicians help Apollo 8 astronauts with their space suits. Astronauts from left are Frank Borman, Jim Lovell, and Bill Anders. Crewmen doffed suits shortly after start of flight and used in-flight coveralls during majority of the mission and for the re-entry.



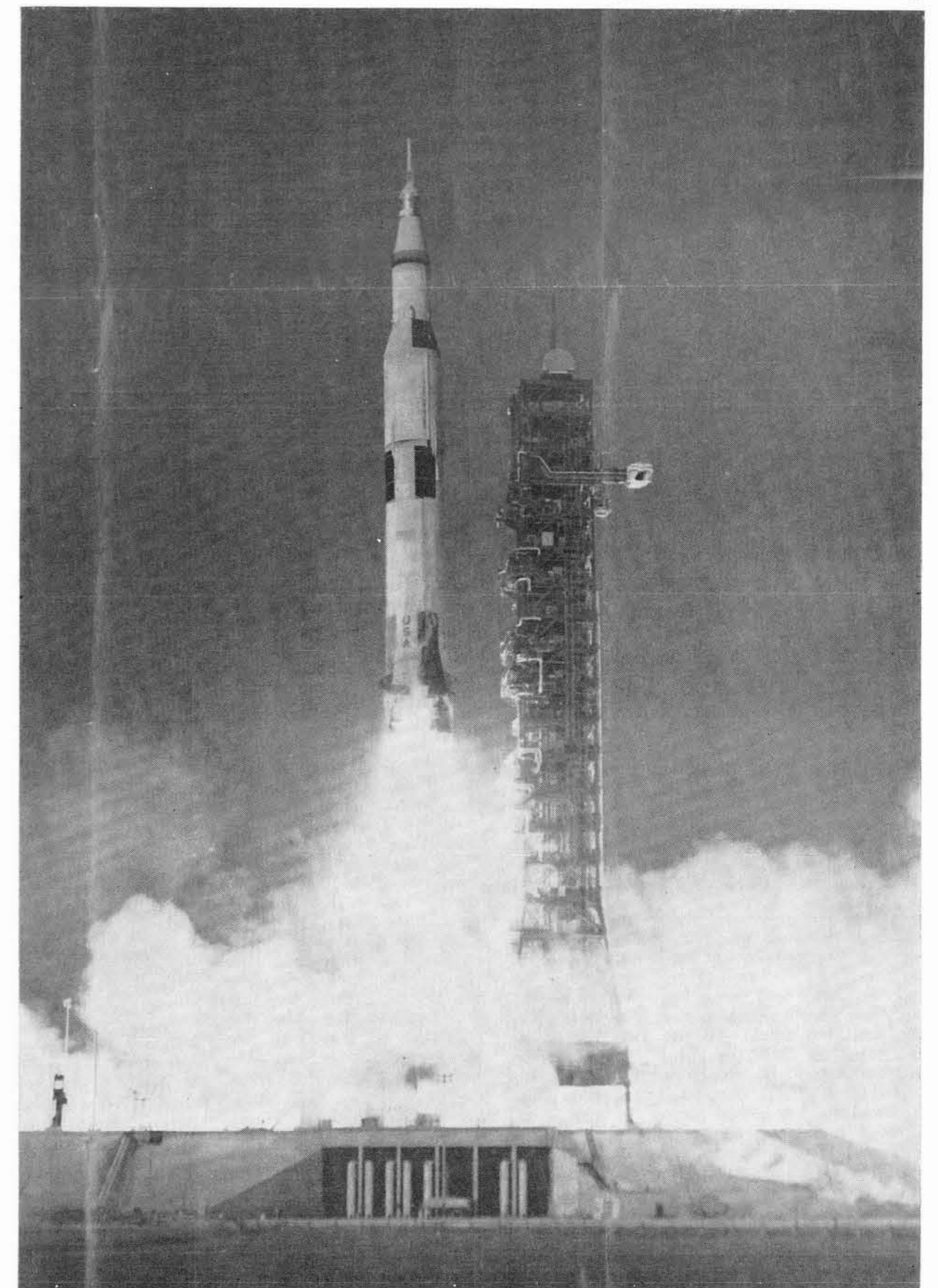
ON THE WAY — Photographer, left, doffs hard-hat in salute to Apollo 8 crewmen, from left, Bill Anders, Jim Lovell, and Frank Borman, as they enter transfer van that took them to launch pad prior to flight. Astronauts are carrying portable air supply for suit cooling and breathing.



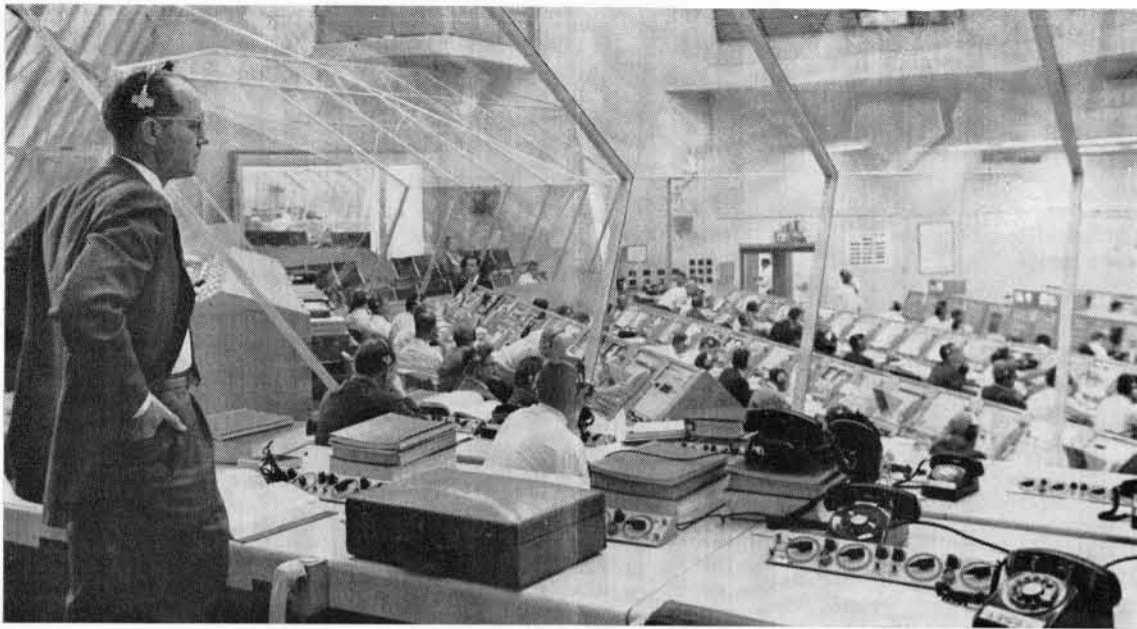
ACE CAMERAMAN — Astronaut Bill Anders holds camera lens prior to taking shot of Earth from Apollo 8 spacecraft while enroute to the moon. Apollo 8 crew thrilled millions of persons around the world in live telecasts beamed Earthward to and from the moon during dramatic seven-day flight.



VIEW FROM SPACE — Earth stands out against darkness of space in television picture transmitted from Apollo 8 spacecraft at distance of 202,400 statute miles. In photo, North Pole is at lower left. South America, Baja California and the southwestern portion of the United States are visible in this photograph.



LIFT-OFF — Power-packed Saturn V launch vehicle boosts Apollo 8 spacecraft and astronauts Frank Borman, Jim Lovell and Bill Anders moonward at start of historic mission. Flight brought worldwide coverage.



ACTION CENTER — Maj. Gen. Samuel Phillips, NASA Apollo program director, watches pre-launch activities for Apollo 8 flight in Firing Room 1 of Kennedy Space Center's Launch Control.

Astronauts Become First in Hearts and Minds of Many Americans

Apollo 8 astronauts replaced Santa Claus in the hearts and minds of Europeans and Latin Americans Christmas Eve, as the drama and perfection of the moon orbit flight caught and held the world's attention.

In nations that ignore Santa and the anniversary of Christ's birth, the historic voyage was reported as an outstanding event.

Throughout Europe, the spacemen were toasted in pubs and rathskellers. Thousands of shoppers hurried home and finished wrapping gifts in front of television screens or near radios.

Sir Bernard Lovell, director of the world-famous Jodrell Bank observatory near Manchester, England, who had expressed doubts before the mission began, became increasingly enthusiastic.

"Viewing the moon from only 70 miles away must be regarded as one of the historic moments in the development of the human race," Sir Bernard said. "One measure of a nation's virility is its willingness to meet challenges it is confident that it is capable of meeting."

A Soviet scientist, Boris Petrov, paid tribute to the "hardware" and the "courage" of the Apollo 8 astronauts, but said his country would continue to emphasize unmanned exploration of space.

Only a few Earth inhabitants openly criticized the awesome voyage. The most notable was Samuel Shenton, secretary of London's Flat Earth Society, who commented that the "public is being ballyhooed, taken for a ride."

SOCIAL SECURITY DEDUCTIONS BEGIN

Effective with payroll checks delivered in January, 1969, social security tax will be deducted at the rate of 4.8% on the first \$7,800 of wages paid in the year. This rate includes an amount for insurance for the aged under the Medicare Program.

The social security tax rate in 1968, including the tax for Medicare, was 4.4% on the first \$6,600 of wages paid in the year.

In addition to the Social Security-Medicare tax deducted from employee wages, the Company must pay an equal amount as its contribution to provide Social Security-Medicare Benefits for its employees.



APOLLO FIRSTS

The Apollo 8 included many firsts; among them:

First manned flight of the Saturn V launch vehicle;

First manned flight of the Saturn S-II, second stage of the Saturn V;

Highest altitude for a manned mission;

First manned flight to the vicinity of the moon;

First lunar orbital flight;

First photographs and television transmitted by men from the lunar vicinity;

First restart of the third stage engine during a manned flight;

Heaviest payload for a manned into earth orbit — about 280,000 lbs;

Greatest distance mankind has ever been from earth;

Highest speed ever attained by human beings — more than 24,000 mph, and,

First direct human view of the dark side of the moon.

Thousands View Apollo Launch on TV

Launch of Apollo 8 was "covered" by some 1,200 reporters at Cape Kennedy and was viewed by more persons than any other event in human history, largely through worldwide television.

More than 100 reporters from some 40 foreign countries joined the United States newsmen in assembling at Cape Kennedy for the historic Apollo 8 lift-off.

Several days before the Dec. 21 launch, neither hotel rooms, nor airline reservations were obtainable in or near Cocoa Beach, Fla. Persons not officially connected with the launch but determined, nevertheless, to witness the launch, slept in Melbourne, 25 miles from Cocoa Beach, or in Orlando, some 40 miles away, then drove nearer Cape Kennedy to see the launch.

Thousands of persons, bundled against the morning chill,

lined the beaches and causeways to see the lift-off, clearly visible for miles.

Live telecasts from Apollo 8 were beamed, both direct and by satellite, to Europe and Central and South America. In addition, Italian, Japanese and Mexican newscasters broadcast the launch live from Cape Kennedy. At the press site, three miles from the launch pad, dozens of foreign reporters, seated side by side, broadcast in their respective languages.

A telecast from Apollo 8, showing the lunar surface, brought forth from the London *Evening Standard*:

"Circling the moon are men like us — braver and more skillful than we are, but still of our bone and blood. And that is a reason for added rejoicing this year."

The following communication was sent to all divisions today by J. R. Moore, president of the Aerospace and Systems Group:

"J. L. Atwood today sent to me the following message of congratulations on the success of the Apollo program. Because his words express so well the credit due all employees, as well as the challenges ahead, I am forwarding them verbatim, along with my own personal congratulations and thanks for all of your good works and sacrifices. Please express our sentiments to your fine people.

"The flawless success of the Apollo 8 mission reflects great credit upon you and your fellow employees. Those directly working on related systems, and programs are especially to be congratulated. At the same time we must all bear in mind that there are many more difficult steps to be taken before the goal of the manned lunar landing program has been achieved. I am confident that both the country and the company will continue to benefit from the professional skill and devotion to duty of the North American Rockwell Apollo/Saturn team. Signed J. L. Atwood"

Moon Brought Near . . .

(Continued from Page 1, Column 4) Dec. 21, and the Saturn V, with its 5.6 million parts, functioned exactly as planned, despite the fact that this was the first manned Saturn V mission.

The first day brought a "go" for the translunar injection which started the astronauts on their incredible journey.

Sunday, the second day, brought the first television transmission. Transmission was excellent of the astronauts in their spacecraft, through use of a wide-angle lens did not function as expected, however, and the earth, from more than 100,000 miles out, appeared as a glowing "blob," a whitish orb. Despite the imperfection of this first TV transmission, which was beamed to much of the world via satellite, it was sufficient to shake the confidence of the Flat Earth Society of London.

Monday, following star-Earth horizon sightings, it was still uncertain whether the Apollo 8 astronauts would simply circumnavigate the moon and permit the spacecraft to continue on a free return to Earth, or to burn the Service Propulsion System (SPS) to place the spacecraft into lunar orbit. This was a time of high drama. Mission Control Center at NASA's Manned Spacecraft Center gave the astronauts a "go" for lunar orbit insertion, thus exhibiting the confidence that was maintained throughout the mission. This day brought also video transmission of the first photographs taken by an earthling of the lunar surface.

Tuesday, the astronauts burned the SPS engine again to circularize their spacecraft into an orbit some 70 miles above the lunar surface. TV transmission of the silvery-gray, cratered lunar surface continued. Borman signed off with his Christmas Eve prayer, which said, in part, "Give us, Oh God, the knowledge that we may con-

tinue to pray with understanding hearts, and show us what each one of us can do to set forward the coming of the day of universal peace. Amen." At 10 p.m., came one of the most dramatic moments of the voyage. Following the planned 10 orbits of the moon, the astronauts on the dark side of the moon, again activated the SPS engine to take the spacecraft out of lunar orbit and into the trans-earth trajectory. The astronauts' lives were dependent on this being a successful burn. It was.

Wednesday, Christmas Day, the astronauts nibbled on turkey during their trans-earth coast, took star-lunar and star-earth horizon sightings, and transmitted an excellent photograph of "the Good Earth," as the astronauts came to call our planet.

Thursday, following additional horizon sightings, the astronauts performed minor mid-course corrections and transmitted views of the earth and its continents with increasing clarity. Anders commented that he felt like a sailor returning home after a long voyage at sea. This was an apt description since the word, astronaut, means "star sailor" and the late President Kennedy characterized space as "a vast ocean" and said that "we intend to sail on it." Borman advised viewers of this final Apollo 8 TV transmission to "stay tuned for the programs to follow" — referring to the missions of Apollo 9 and Apollo 10.

Friday — splashdown, in a relatively calm Pacific Ocean near Christmas Island, some 1,000 miles south of Hawaii but only 5,000-6,000 yards from the Aircraft Carrier Yorktown. The spacecraft was the first manned space vehicle to land in darkness — about an hour before daylight.

Gilruth Praises . . .

(Continued from Page 1, Column 5) required in the manned moon landing mission.

At the same time, Gen. Phillips pointed out that the Apollo/Saturn vehicle for the Apollo 9 mission was being prepared for rollout at Kennedy Space Center this week. The Apollo 10 vehicle is being assembled at KSC, and the division-built Spacecraft 106 and the launch vehicle stages for the Apollo 11 flight are being readied for delivery.

Apollo 9 will be the first manned flight with the lunar module in Earth orbit, and Apollo 10 is planned as a moon orbiting flight with the lunar module.

F-15 Contract . . .

(Continued from Page 1, Column 2) Other companies competing with North American Rockwell to define the aircraft's design include Fairchild-Hiller Corp. and McDonnell Douglas.

Commander Borman Dedicates Prayer from Spacecraft

The following is the Christmas Eve prayer beamed back to Earth by Apollo 8 commander Frank Borman as he and his fellow astronauts circled the moon. Borman dedicated the prayer to parishioners at his own St. Christopher's Church in Seabrook, Tex.

"Give us, Oh God, the vision which can see thy love in the world in spite of human failure.

"Give us the faith to trust the goodness in spite of our ignorance and weakness.

"Give us the knowledge that we may continue to pray with understanding hearts, and show us what each one of us can do to set forward the coming of the day of universal peace, Amen."

To E. D. Starkweather
Vice President — Personnel
Aerospace and Systems Group
North American Rockwell

Every American is justly proud of the historic achievement of the three heroic crew members of Apollo 8. I salute the management, engineering and production team in North American Rockwell who made the Apollo 8 mission possible and we are proud that UAW members are a part of this team. My heartiest congratulations and best wishes for the New Year.

Walter P. Reuther
President UAW

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