

# **ALABAMA SPACE & ROCKET CENTER NEWSLETTER**

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SPACE CAMP SPECIAL EDITION





# First Space Camp Is Termed A Success

Nearly 800 boys and girls experienced a great space adventure as the nation's first Space Camp led them through "astronaut training," weightless training, rocket assembly and a simulated Space Shuttle mission.

Sponsored by the Alabama Space & Rocket Center, the summer camp's activities won high marks from the young participants and praise from their parents, educators and the media.

The five days of the program summarized the past, present and future of space exploration for some 100 youngsters each week, involving them in such areas as zero gravity, aerospace technology, living in space and careers in science and engineering.

"By virtually all standards, our first Space Camp proved to be a successful effort," said Space Center Director Edward O. Buckbee. "The campers left Huntsville with a greater understanding and appreciation for their nation's space program. We hope the spark of curiosity has been ignited in many of them to return to school determined to study harder and concentrate in math and science."

"A recent study which shows the Soviet Union educates five times as many engineers as the U.S.," he said, "underscores the need for such programs to stimulate interest in the field of high technology."

Campers came from 40 states and two foreign countries to attend the camp. Many campers expressed hope that an advanced program will be developed next summer for them to continue participation in the unique space adventure. Buckbee said the age bracket of 12 through 14 will probably be maintained next summer for the basic program which will be repeated.

The camp was "sold out" midway through the eight weeks of the program due in large measure to the extensive media coverage which it received. Participants were accepted on a first-come basis, with the additional requirement of endorsement by a teacher familiar with the applicant's interest in science.

The dormitories at the University of Alabama in Huntsville housed the campers. The UAH campus pool also was the site of several astronaut-related activities, such as a "water rescue" exercise used in the shuttle program and a task exercise which demonstrated the principle of neutral buoyancy encountered in space exploration.

Buckbee praised the cooperation of NASA's Marshall Space Flight Center and the U.S. Army Missile Command in permitting access to various laboratories not available to the public. "The trips to NASA and the Army exposed the youngsters to 'the real thing' and proved invaluable," said Buckbee. Computer study at Randolph School and excursions to Wyle Laboratories; Systems Development Corp.; SCI, Inc.; Control Data Corp.; and Johnson Environmental and Energy Center gave the campers first-hand experience in career opportunities.

**ON THE COVER: A cricket receives close inspection before being loaded aboard a rocket for launch at Space Camp. Assembling and launching rockets by each youngster ranked among the top activities at the nation's first Space Camp. (Photo by Dave Dieter)**

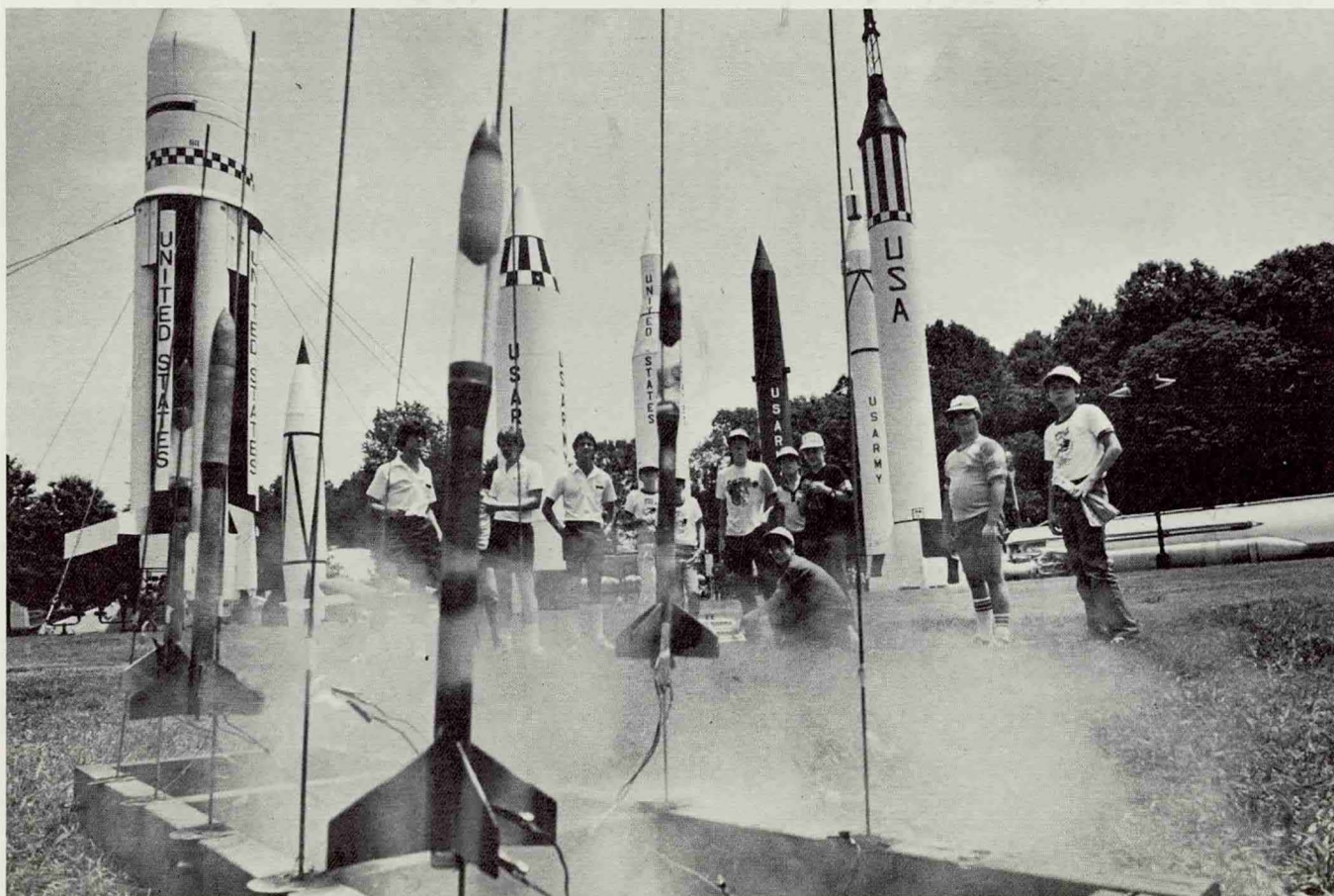


**A youngster lifts a Skylab film cartridge out of its frame during a demonstration at the University of Alabama in Huntsville swimming pool dealing with neutral buoyancy. Campers visited the million-gallon water tank at the NASA-Marshall Space Flight Center where engineers and astronauts train for simulated weightlessness. (Photo by Dave Dieter)**



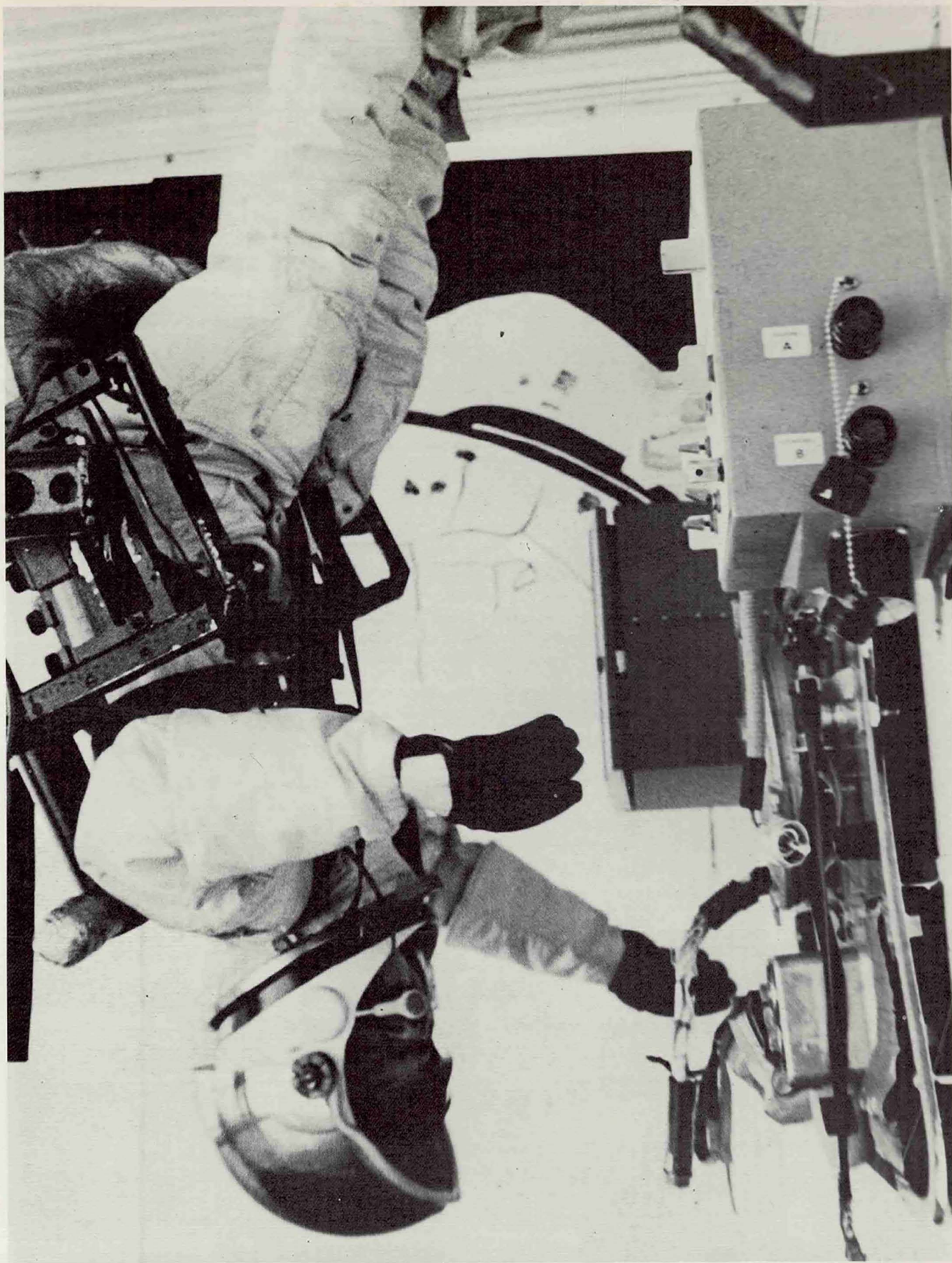


Campers assemble rockets inside Mission Control, with each camper able to customize tail fins and paint patterns. The Mission Control room served a variety of functions that ranged from discussions on rocketry to conducting Space Shuttle missions. (Above & below photos by Dave Dieter)



A rocket heads skyward as campers watch from the launch pad area. Campers placed crickets inside the clear plastic payloads as part of experiments to see how the "cricketnaughts" endured the brief flight.





A technical payload specialist (TPS) conducts a space walk upside down in the cargo bay of the simulated Space Shuttle during a mission. The TPS is strapped in a device known as Five Degrees of Freedom, similar to that used by Apollo astronauts preparing for space walks. (Photo by Bob Dunnivant)





**Sun Team Leader Ray Dupree assists Joe Irwin into a flight suit in the area which houses the cockpit of the simulated Space Shuttle. Joe, whose father Jim Irwin walked on the moon during the Apollo 15 mission, is seated in front of models of the Mercury and Gemini spacecraft. (Photo by Mike Keza/Gamma-Liaison)**

## Here's What Youngsters Enjoy About Space Camp

Here is a sampling of quotes from youngsters when asked to express themselves about spending a week at Space Camp:

"I liked building rockets and getting to put crickets inside to see if they could survive launch and re-entry."

"I thought the Lunar Odyssey was fun. We got to feel up to 3 G's (triple normal body weight) as it went around. it was like the astronauts feel when the Space Shuttle goes up."

"I couldn't believe I'd really get to put on a real space suit. My mom used to tell me that I was born right before Mr. Neil Armstrong walked on the Moon and that she was changing my diapers while she watched his ship land. Mom and Dad bought a new TV — it was color — right before the Moon landing."

"The best fun I had was being mission director of the shuttle flight. The only trouble was that when the problem developed the other team members wouldn't listen to me and voted to take the wrong option. I still

directed a perfect 2 point 2 landing. It was a beautiful landing."

"It was all real neat. I had read a lot about space before coming to camp this summer. I didn't know the Saturn V was really that big. I liked seeing the Army's laser things and going to NASA to learn about Spacelab and the telescope that the shuttle will take up."

"I was the TPS (technical payload specialist) in the mission and wore the space suit while being upside down. It was hot in the space suit, but it was worth it."

"I live in California and this was the first time I had ever been away from home without my parents. I made a lot of friends and hope to come back next year."

"I got to be on TV. They took my picture eating space food. I liked everything but the freeze-dried corn. I wonder if the astronauts liked the corn."





The commander and pilot of a Space Shuttle mission flank a computer terminal inside the cockpit prior to lift-off. Apparently they are observing the traditional cockpit sign "No handball in this area," a bit of astronaut inside humor. (Photo by Greg Brough)



Mission Control members keep an eye on television monitors and their scripts during the shuttle mission and stay in touch with cockpit crew members by radio headsets. Late in the mission, an "emergency" occurs, requiring the crew and Mission Control to draw on knowledge gained during the week's program to successfully complete their mission. (Photo by Bob Dunnivant-UPI)



# A Space Camp for Astronaut Hopefuls

Special to The New York Times

HUNTSVILLE, Ala. — A longtime dream of the rocket pioneer Werner von Braun has become a reality with the nation's first Space Camp, intended to interest boys and girls in aerospace careers. The eight-week-long camp sessions are continuing throughout the summer.

Seventy-five youngsters 12 through 14 years old spend the week in astronaut training at the National Aeronautics and Space Administration's Marshall Space Flight Center, where astronauts trained, and at the Alabama Space and Rocket Center, a state-run museum. They wear space suits, sample the freeze-dried food eaten in space and experience weightlessness. They are housed on the campus of the University of Alabama at Huntsville.

In June, children came from 19 states for the first week of camp and from 24 states for the second week.

## Simulated Space Mission

The high point of each week is a simulated space-shuttle mission by each eight-member team. Four youngsters sit at a flight console monitoring activities of the other four inside a shuttle cockpit built for the camp. Recently, midway through the mission one rehearsed script changed because of an emergency in the cargo area. The crew improvised, using principles learned during the week.

One of the teams failed in the theoretical emergency. A critical decision was four seconds late, causing the orbiter Marauder to re-enter the earth's atmosphere upside down.

Permanent museum exhibits, such as a 36-passenger shuttle space liner and a zero-gravity machine, take campers and tourists on simulated space flights. The museum's outdoor rocket and missile collection, including a 364-foot Saturn V, proves to be an unusual classroom for studying rockets.

Mike Dieudonne, 14, surprised his father, who traveled from New Iberia, La., for an awards ceremony recently, by saying he wanted to return next year. "Until today, Mike has never said right after a camp that he wanted to come back," the father told the space center director, Edward O. Buckbee.

Mr. Buckbee said the enthusiastic response is an indication that the summer-long program will fulfill Mr. von Braun's dream of stimulating children's interest in science.

"One time when Dr. von Braun was visiting our space museum he asked, 'Why can't we promote science like football and tennis pros promote their

sports?'" Mr. Buckbee said. "'Why not come up with a program that would permit youngsters to become involved and excited over science?'"

The idea lay dormant until the space center developed plans for a \$16 million expansion, which included funds for the Space Camp. A learning center with dormitory space for up to 200 is proposed.

Mr. Buckbee said details of how the permanent facilities should be de-

signed will be decided at the conclusion of the eight-week program. Until dormitories are built on the space center property, campers will continue to be housed at the University of Alabama campus.

"We feel this is a positive way to motivate boys and girls toward a broader understanding of space exploration," Mr. Buckbee said, adding that he expects other science centers to imitate the program. He has copy-

righted the name Space Camp.

The camp's manager, Jean Graben, who is an eighth-grade science teacher, shares Mr. Buckbee's concern over what he feels is a declining emphasis on science education. She said, "Children are dropping out of science at a faster and faster rate because they are not being motivated and we're hoping, in some way, to help turn the trend around. We believe this hands-on experience of space science

will, in fact, motivate many toward the higher sciences."

A total of 800 boys and girls will have participated by the end of summer.

An informal survey of departing campers' preferences revealed that gravity experiments inside the museum's centrifugal theater and tours of the adjoining NASA center ranked highest; the space food was the least popular.

Many campers said they had been encouraged to attend by relatives. Others had learned of the program from teachers.

## An Uncle's Urging

Nathan Haggard, 13, of Ocala, Fla., can watch the space shuttle streak into orbit from his home near Kennedy Space Center. He came to Huntsville at the urging of an uncle who flies for the Ohio Air National Guard.

Fourteen-year-old Riley Suiter of Hamilton, Ark., who noticed a Space Camp brochure on his teacher's desk, said a background in space science may help him become an Air Force pilot.

Shere Colvin, 14, of Evergreen, Colo., is interested in space technology, but not in flying aboard the shuttle. Although she has flown on planes and helicopters, "I'd be too scared to go in a rocket," she said.

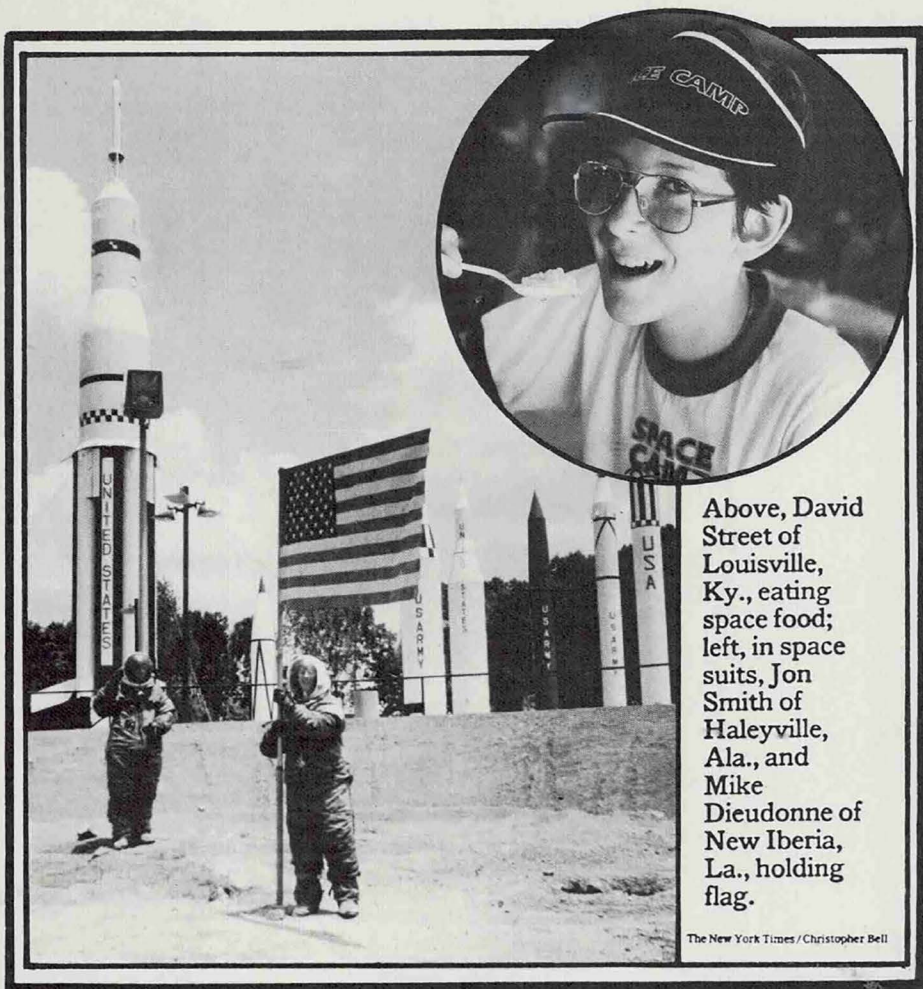
"I'm interested in how NASA gets the rockets off the ground," said Tamatha Brumley, 13, of Houston. "To me, it's amazing."

Craig Wirth, 14, of Santa Barbara, Calif., initially hesitated about attending, but said he enjoyed being part of the first teen-age space shuttle team.

The camp's mascot, Monkeynaut Baker, a squirrel monkey, was the first passenger to survive an American space flight. She lives in the museum.

The campers were led in discussions on rocketry by Konrad Dannenberg and Ernest Stuhlinger, members of the German rocket team that accompanied Mr. von Braun to Huntsville in 1950. Mr. Buckbee told a parent, "You can't find a better authority to talk about how America got to the moon than the men who helped put us there."

By sundown, all but two 12-year-olds had left for home. Chip Yarbrough and his friend, David Cole 3d, both of Birmingham, Ala., had persuaded their parents to wait while they continued to launch their model rockets into the darkening sky against a museum background of Redstone, Jupiter and Saturn rockets developed by the von Braun team.



Above, David Street of Louisville, Ky., eating space food; left, in space suits, Jon Smith of Haleyville, Ala., and Mike Dieudonne of New Iberia, La., holding flag.

The New York Times / Christopher Bell



# Media Spreads Camp Message Beyond Huntsville

While being a success with youngsters, Space Camp was also a hit with the media.

Network news and entertainment shows, plus extensive coverage in newspapers, spread the message of the camp far beyond the bounds of the Alabama Space and Rocket Center.

Many youngsters from states outside the Southeast said they signed up for the camp after seeing director Edward O. Buckbee on ABC's "Good Morning America" during the third shuttle launch.

When the camp opened in mid-June, a crew from "Good Morning America" taped activities. Guest host Frank Gifford narrated the report. ABC News Science Correspondent Lynn Sherr stopped over in Huntsville to prepare a story for "ABC World News Tonight" en route to Kennedy Space Center for the fourth shuttle launch.

"PM Magazine" from Birmingham, hosted by Linda Scott, covered the camp for national distribution on Sept. 1, and a CBS News crew taped the activities which Dianne Sawyer narrated on "CBS Morning News."

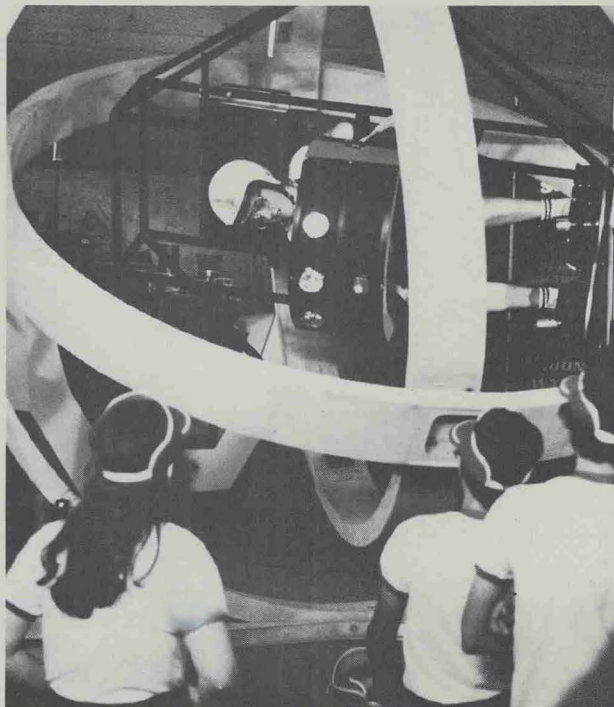
"Today" show host Jane Pauley took special interest in the camp and scheduled the NBC story to air on national Space Day in July. Bryant Gumbel commented following the story that it was exactly 13 years ago that Neil Armstrong became the first person to walk on the moon.

The popular prime time series "That's Incredible" spent two days in late July taping Space Camp for a major segment. It is tentatively scheduled to air in November. The camp also drew the attention of the CBS children's program "In the News," and "Kidsworld," from Birmingham.

A half-page article in The New York Times by correspondent Christopher Bell was syndicated to 300 newspapers nationwide and sparked additional media attention. And National Public Radio prepared a report for "All Things Considered."

Local and regional newspapers, from Memphis and Nashville to Tupelo, Huntsville, Decatur and Birmingham, informed readers of the unique science camp.

Several science and children's magazines also expressed interest in publishing stories next spring.



**An adventuresome girl camper experiences the tumbling action of the Multi-Axis Trainer inside the Space Museum. Girls comprised 10 percent of the participants during the summer. (Photo by Lee Sentell)**

## Alabama Space & Rocket Center

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## 1983 Space Camp

Youngsters, educators and parents who write the Alabama Space & Rocket Center for information on the 1983 summer program will automatically receive a registration form, schedule and fee information when details are available in early 1983.

Participants in the 1982 camp will also receive material without having to contact the Space & Rocket Center.