# UNITED STATES





**U.S. SPACE CAMP/ACADEMY** is an educational program that couples classroom instruction with hands-on activities. Trainees learn about space flight and the space program in lectures and seminars, and put this information to practical use with our simulators and tours.

Young people from across the nation attend programs at U.S. SPACE CAMP to learn how they can become involved in science and space technology. Some plan to become pilots, others hope to pursue careers in aerospace engineering and still others aspire to become astronauts of the 21st century. Many enjoy the experiences of astronaut training while studying the variety of high-tech careers that will be open to them.

The educational programs teach teamwork, decision-making and leadership. Dr. Wernher von Braun, the rocket scientist whose Huntsville team sent astronauts to the Moon, inspired these programs (offered by non-profit organizations) that have challenged and educated youngsters from around the world.

The Alabama program began in 1982 and is sponsored and conducted by the U.S. Space & Rocket Center, NASA's Visitor Information Center. The Florida program, started in 1988, is sponsored by the U.S. Space Camp Foundation and the Mercury Seven Foundation. The Mercury Seven Foundation is the organization of America's original astronauts headed by Admiral Alan B. Shepard, America's first astronaut and Apollo 14 commander.

President George Bush praised the program during a visit when he told SPACE CAMP trainees, "This is probably the same thrill and experience for me as it is for you. I'm absolutely convinced that what we're seeing here today, including the education of young Americans looking to the future, in terms of science, technology, and the emphasis here on space, is absolutely vital to our country."

"I'm inspired by the young people who participate in this program . . . because this really is the future."

The U.S. SPACE CAMP appreciates the direct support of the NASA-Marshall Space Flight Center in Alabama and the NASA-Kennedy Space Center in Florida in its programs.



President George Bush operates SPACE CAMP's version of the Manned Maneuvering Unit during a visit to SPACE CAMP.

*The following corporations are partners of U.S. SPACE CAMP, U.S. SPACE ACADEMY and the U.S. Space and Rocket Center. The Center acknowledges the significant support of its educational activities by these and other contributors.* 



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# A MESSAGE FROM THE DIRECTOR

"As we enter our 10th year, we are inspired daily by the contact we have with trainees and graduates of our program. The response from youngsters, parents and educators demonstrates that we are achieving our original goal of exciting youngsters about math and science so that they will be prepared for careers in high technology.

By working closely with educators and the aerospace community, we continue to create new adventures which challenge the minds of America's best and brightest young people. The educational and social experiences which bond the trainees during their stay enable each one to think smarter, reason sharper and understand the new level of challenges which will face him or her in college and beyond.

While our mission is linked to the stars, our programs lay the solid foundations for dynamic careers, including some not yet anticipated by our society, but which will, in fact, be shaped by the very generation of young people who attend in 1991."

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Edward O. Buckbee, Director U.S. Space & Rocket Center U.S. Space Camp



# U.S. SPACE CAMP

PACE CAMP is a week-long program for youngsters in grades 4, 5, 6.

**SPACE CAMP** strives to use the excitement of space exploration to stimulate student interest in math, science and technology. The training week includes classroom, hands-on training, tours, guest lectures and simulated space missions.

# ARRIVAL AND DAY ONE:

Check-in is scheduled Sunday from 10 a.m. to 2 p.m. Follow the signs to registration. Trainees will meet team leaders and other members of their teams at the 2 p.m. orientation. This day is devoted to understanding basic propulsion. DAY TWO: Trainees are briefed on basic principles of propulsion and spacecraft guidance and control on **ROCKETRY DAY before beginning** assembly of their own individual model rockets. A guided tour of the rocket park, which former Astronaut John Glenn calls "the most complete in the world," identifies the roles of each rocket in the advancement of the space program. Most of the rockets were engineered and tested at the nearby NASA-Marshall Space Flight Center and the U.S. Army-Redstone Arsenal. Beginning tonight, such Omnimax films as "Hail Columbia" and "The Dream is Alive" are shown in the Spacedome Theater.

**DAY THREE:** NASA astronauts train for many years before their first flight. The objective of ASTRONAUT TRAINING DAY is to involve trainees in a variety of specific activities, from testing space food to learning about life-support and waste management systems for living in space. They try on space suits and helmets and study



LABAMA

A trainee experiences 1/6 her own body weight as she practices moving in the Moon Walk Trainer.

the actual Apollo 16 spacecraft that flew to the Moon. They see up close a full-size replica of the NASA Hubble Space Telescope placed in orbit by Space Shuttle astronauts. A tour of the NASA Center where tomorrow's space missions are being planned is on the agenda.

**DAY FOUR:** A highlight of the week, MICROGRAVITY DAY casts youngsters in the role of astronauts preparing for space walks and coping

with the "zero gravity" of space. They practice in the Moon Walk Trainer, which simulates the sensation of walking on the Moon, where body weight is one-sixth that of normal. And using a computer they calculate their own body weight. Trainees climb aboard the "1-G" Trainer and use hand controls to maneuver 360 degrees against gravity. They observe as their team leader spins and tumbles in the Multi-Axis Trainer, similar to the device in which Mercury astronauts were conditioned should their craft tumble out of control. They experience the sensation of up to 3 G's-or triple normal body weight-during an experience in the Centrifuge. They also rendezvous with an orbiting space station while aboard the Shuttle Space Liner. During a presentation of emergency egress procedures, trainees view the Underwater Astronaut Trainer and learn about the current bailout procedures that trainees will later experience at a swimming pool.

**DAY FIVE:** NASA's Marshall Space Flight Center is in the forefront of planning the nation's first permanent Space Station Trainees study development of large space structures and their benefit for mankind. Discussions outline a variety of careers in the aerospace field, apart from that of astronaut, that will be available in the future. They also launch their model rockets, with the mission of safely recovering their payload. The culmination of the week



After studying basic principles of proplusion, trainees construct and launch their own model rockets, complete with "cricketnaut" payload.

is SPACE SHUTTLE MISSION DAY, an experience about which most youngsters can only dream. Each team of 12 youngsters is divided into crews for the Shuttle spacecraft and mission control. Team members conduct a simulated mission, beginning with checkout, countdown, launch, orbit and return to Earth. Each team's performance depends upon how well campers apply principles learned earlier in the week. (The day's activities and their order are subject to change, based on scheduling needs.)

### **GRADUATION AND DEPARTURE:** Family

members are invited to graduation ceremonies on Friday at 9 a.m. During graduation each trainee

A mission specialist snaps a quick salute as he is suited up for a "space walk" during a simulated mission.



receives Space Camp wings, certificates and a color group photo. (Parents should arrive by 8:30 a.m. and go to the lobby to schedule their theater and NASA tour programs.) Special team awards will be presented at the conclusion of an exciting week. Certificate framing is available after graduation. (Remember to get team members' names and addresses in your Astronaut Log to keep in touch!) Schedule airline flights to depart after 11:30 a.m. Unless other arrangements have been made, trainees should have their belongings out of the dormitory by 11 a.m. (See graduation ticket information on page 26.)

**TUITION.** The fee includes meals, educational program and materials, accommodations, T-shirt and visor. See pages 18-19 for tuition and schedule.

NOTE. For best scheduling, activities may occur on days other than listed.

"My son found the program fascinating. I think it's a wonderful way to give potential spacerelated careers an opportunity to begin!"

> Harold Green Charlotte, NC



PACE CAMP is a week-long program for youngsters in grades 4, 5, 6, 7.

# ARRIVAL AND DAY ONE:

Trainees traveling by plane should schedule flights to arrive at the Orlando International Airport by 2 p.m. to be met by a uniformed Space Camp representative. (The \$25 airport transfer fee is payable upon registration.) Check-in at the Training Center is from 1 to 4 p.m., and trainees will meet their teammates and team leaders at the 4 p.m. orientation. Arrivals before noon are subject to early arrival fees. Families driving from Orlando should travel east on the Beeline (Hwy. 528), exit to 407 north, then right onto Hwy. 405. SPACE CAMP is located with the U.S. Astronaut Hall of Fame east of the intersection at Hwy. 405 and U.S. 1. Trainees can look across the Indian River and see the Kennedy Space Center's Vehicle Assembly Building and launch pads 39 A & B.

**DAY TWO:** On the first day, trainees meet the future at the Training Center, where they learn about America's original space explorers in the U.S. Astronaut Hall of Fame. Trainees see personal mementoes and equipment belonging to the seven Mercury astronauts and watch

a videotape of their space flights. The tour includes a look at future NASA programs such as Space Station Freedom, plans for return trips to the Moon and manned voyages to Mars. The adventure begins on ROCKETRY DAY with an in-depth tour of the NASA Rocket Garden at Spaceport USA, Kennedy Space Center. All types of rockets that have been launched into space from nearby Cape Canaveral Air Force Station and Kennedy Space Center are on display, as well as NASA's latest exhibits on future space travel. Trainees begin assembly of their own model rockets while learning about rocket propulsion and aerodynamics, and take a trip to the Brevard Community College's Planetarium for a hands-on astronomy lesson.



The Space Shuttle thunders off pad 37 at the Kennedy Space Center just across the Indian River from the U.S. Astronaut Hall of Fame, which houses the U.S. Space Camp in Florida.

DAY THREE: NASA astronauts train for many years before being launched from Florida's Space Coast. The objective of ASTRONAUT TRAINING DAY is to involve trainees in a variety of activities from eating packaged space food to learning about life-support and waste management systems for living in space. Trainees watch as their team leaders tumble in the Mercury-era Multi-Axis Trainer and learn about the Shuttle's heat tiles. Trainees also begin working with the astronaut training simulators, such as the rotating chair, and try on a space suit. In the evening, each team will plan, design and build their own version of a large space structure.

### **DAY FOUR:** MICROGRAVITY

DAY puts trainees in the role of astronauts preparing for space walks and coping with the zero gravity of space. They learn about the exciting field of robotics and what happens when earthbound toys go into space. Trainees will practice in the Microgravity Trainer, which simulates the sensation of walking on the Moon. The Five Degrees of Freedom chair simulates the freedom of movement astronauts experience when on a space walk. A swimming pool becomes the neutral buoyancy training area to practice working with a Hubble Telescope task board in simulated weightlessness (weather permitting).

**DAY FIVE:** The highlight of the week is MISSION DAY, when teams

participate in a simulated Space Shuttle flight, based on training throughout the week. Each team's ground control and flight crew will conduct an hour-long simulated mission from countdown to orbit and landing. Trainees launch their model rockets and determine how successfully they assembled the elements.

### **GRADUATION AND DEPARTURE:** The week

culminates with graduation exercises at 9 a.m. in front of family members. (Seating for graduation is at 8:30.) Teams with the best mission, rocket launch and large space structure design will be recognized with special team awards. Each trainee receives wings, a certificate and a group photo. Schedule airline flights to depart after 1 p.m. (See graduation ticket information on page 27.)

*TUITION.* The fee includes meals, accommodations, program materials, T-shirt and visor. See pages 18-19 for tuition and schedule.

NOTE. For best scheduling, activities may occur on days other than listed.

"I cut grass all summer to get to go. It was worth it. My parents are matching what I save to come back next year."

Dan Ladwig Topeka, KS



# **U.S. SPACE ACADEMY**





Level I is a week-long program in Alabama for trainees in grades 7, 8, 9.

LEVEL I

**ARRIVAL AND DAY ONE:** Check-in is scheduled on Sunday from 10 a.m. to 2 p.m. Follow the signs to registration. Trainees will meet their team at the orientation at 2 p.m. and begin a full schedule of program activities.

**DAY TWO:** The space odyssey continues on SHUTTLE OPERA-TIONS DAY with familiarization of the Shuttle cockpit and ground control simulators developed exclusively for the program. The fullscale Spacelab or Space Station module is modeled after the actual payload crew training model trainees tour at the NASA-Marshall Space Flight Center. The Mission Control Center in Houston is reproduced to track the simulated flights. And the shuttle cockpits are accurate, with trainees able to initiate pitch and roll on several simulators during launch and the return to Earth.

**DAY THREE:** After being divided into teams, the trainees narrow their choices and begin training for their mission assignments. Most will train simultaneously for crew, science or ground positions. The purpose of MISSION ASSIGN-MENTS DAY is highlighted with studies of various space suits as life-support systems during space walks.

DAY FOUR: As the countdown begins on the missions, the investigation of payloads on MISSION EXPERI-MENTS DAY intensifies, covering satellite deployment and operation of the large remote manipulator arm, which will relate to missions in the two following days. Training for mission experiments prepares trainees for the actual, real-time experiments scheduled onboard. They handle experimental hardware to understand the objectives and mechanics of the scientific investigations, as well as how to evaluate results. Additionally, they construct a large space structure under water in simulated weightlessness.

**DAY FIVE:** Each team conducts two flights so that each team member experiences Mission Control, space station or on-orbit flight. On MISSION DAY, dramatic countdown and launch are monitored by the ground control team on a multiscreen system. A computer-generated image of the Shuttle orbit tracks the path, as the commander and pilot



Space Academy trainees conduct lab experiments inside a module the size of a Space Station Freedom module.

operate the control system of the simulator to achieve proper orbit. The payload specialists conduct actual experiments inside the Spacelab module and in the Space Station, while mission specialists conduct space walks outside of the crew cabin and use astronaut simulators such as the "1-G" Trainer to simulate working in a weightless environment. Mission specialists use a Hubble Space Telescope task board patterned after the full-size Hubble exhibit they viewed at the Space Center. After docking with the Space Station, the Shuttle crew returns to Earth. Team members exchange assignments to increase their exposure to both onboard activities and ground support roles. A debriefing follows each mission.

### **GRADUATION AND DEPARTURE:** The presenta-

tion of awards, wings and certificates during graduation ceremonies on Friday at 9 a.m. concludes the unique educational experience. Family members are invited to arrive by 8:30 a.m. Schedule airlines flights to depart after 11:30 a.m. Unless other arrangements have been made, trainees should have their belongings out of the dormitory by 11 a.m. (Family members should arrive by 8:30 a.m. and arrange for their visits to the Spacedome theater and NASA. See graduation ticket information on page 26.)

**TUITION.** The fee includes meals, educational program and materials, accommodations, T-shirt, and hat. See pages 18-19 for tuition and schedule.

NOTE. For best scheduling, activities may occur on days other than listed.

"The emphasis on teamwork, along with the stimulating and challenging environment, made Space Academy a memorable experience."

Jan Moths Brookfield, WI

# **AVIATION CHALLENGE**

Unita

**CHALLENGE is a** week-long adventure designed after the U.S. Navy "TOP-GUN" Fighter-Pilot program. BASIC is for grades 7, 8 and 9; INTERMEDIATE is for grades 10, 11 and 12.

# **BASIC GRADES 7-9:**

BASIC AVIATION CHALLENGE is available to students who have previously attended a session in Space Camp or Space Academy. Activities are comparable to INTER-MEDIATE but are less advanced and require no previous knowledge of aviation. A daily flight plan for BASIC will be available early in 1991 and mailed to trainees who attended in 1988, 1989 and 1990.

# INTERMEDIATE: GRADES 10-12

If you've ever dreamed of flying a F-14 Tomcat jet at Mach 2 or strapping yourself into the pilot's seat of the Space Shuttle ready for launch, Aviation Challenge is for you. This program was developed from pilot training at U.S. Air Force bases such as Tyndall in Panama City, FL, and U.S. Navy programs such as those at Miramar, Pensacola and aboard aircraft carriers. Learn from experts what it takes to be accepted for aviator training at a military academy and how to become a jet jockey. The aviator-to-be is clearly a motivated, mature, selfstarter who has managed to mix academics, extra-curricular activities, competitive athletics and fun. So suit up with the best, and go for the coveted "TOPGUN" award in the exciting Aviation Challenge program. Optional college credit is available for grades 11 and 12 from the University of Oklahoma. See page 21.



Aviation Challenge trainee gives a thumbs up for the program after completing a simulated mission.

# ARRIVAL AND DAY ONE:

Follow signs to check-in and registration, held on Sunday from 10 a.m. to 2 p.m. Meet your squadron leader and other members of your squadron during orientation at 2 p.m. Preparation begins with lectures in aerodynamics, flights systems, engineering, propulsion and simulator procedures. Squadron members adopt call signs such as "Mustang," "Cobra," "Bulldog" and "Wing Walker." The first simulator ride helps introduce the wonder and excitement of powered flight.



Trainees are instructed in precision aerobatics using one of the high fidelity flight simulators.

**DAY TWO:** Each day begins with calisthenics and obstacle course training. Water survival training includes lectures in post-ejection procedures. Students practice water survival procedures learned on the tower slide wire, which simulates water entry from a parachute descent; the paradrag, which simulates water entry and parachute procedures; and the helo lift, which simulates helicopter rescue. They practice parachute disentanglement and boarding life rafts. Academic training continues with discussions on aircraft carrier operations and the "Top Guns" of the U.S. Navy Fighter Weapons School and with participation in an Air Force training exercise named "Red Flag." An additional exercise teaches basic aerobatics, aircraft carrier catapult launch and arrested landing procedures.

**DAY THREE:** Academic training includes lectures in navigation, tactical maneuvering and military aviation careers. Some lectures may be given by guest fighter pilots and astronauts. Squadron members learn how to live off the land if an emergency parachute ejection suddenly plunges them into a wooded area. Lessons in land navigation, food procurement and shelter building are the keys to survival. Simulator training completes the aircraft carrier qualifications.

**DAY FOUR:** Students prepare for the graduation simulator exercise and learn about aviation-related occupations. They complete the land survival course with a hands-on survival exercise and learn the basics of air-to-air intercepts before buckling up for flight trainer maneuvers.

**DAY FIVE:** Students test their flight planning and teamwork during the exhilarating graduation simulator event. All simulators are networked for an exciting mission based on Top Gun jet training. Strapped into a realistic simulator, students must use all their knowledge and skills to take the Aviation Challenge head-on, make their aerial opponent blink first and finish the mission in triumph.

### **GRADUATION AND DEPARTURE:** The final day

is capped with an intersquadron obstacle course competition that is followed by graduation on Friday at 9 a.m. Family members are invited to arrive by 8:30. The presentation of awards, wings, team photographs and certificates concludes the Fighter-Pilot experience. Family members are invited. Schedule airline flights to depart after 11:30 p.m. Unless other arrangements have been made, students should have their luggage out of the dorm by 11:00 a.m.

**TUITION.** The fee include meals, educational program and materials, overnight accommodations and the official squadron T-shirt. See pages 18-19 for schedule and tuition.

NOTE. For best scheduling, activities may occur on days other than listed.

"It's the first place I've ever been where it was cool to be smart."

Lyle Coleman Indiana



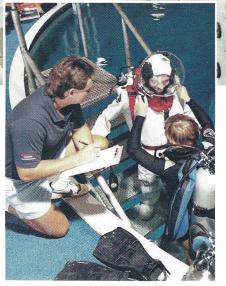


Level II is an 8-day program that emphasizes the academic foundation for space-related careers for students in grades 10, 11, 12.

**MISSION:** To help train America's youth for the demanding careers that lie ahead in aerospace and other high-tech fields, the U.S. Space and Rocket Center offers an advanced level to its SPACE ACADEMY programs. Level II students may train in aircraft cockpit trainers, the Underwater Astronaut Trainer and a Space Station module. The program features a series of 2-hour missions in preparation for a lengthy simulated Space Shuttle mission. Enrollment is open to high school sophomores, juniors and seniors. Prior enrollment in SPACE ACADEMY is not required. Level II covers more than 90 hours of instruction and training in 8 days. **Registration is Saturday from 1-5 p.m.** 

**PROGRAM:** The training curriculum for Level II is patterned after NASA crew training manuals and is performed in facilities designed from astronaut training simulators.

SPACE ACADEMY team leaders and counselors are highly motivated and well-trained young adults who attend universities throughout the U.S. Many are working toward, or have already obtained, degrees in engineering, science, or education as their career goals. Students receive sound academic instruction, learn authentic astronaut training procedures and



Left: Two trainees perform Extra Vehicular Activity (EVA) in cargo bay to repair satellite during mission simulation. Above: Trainee prepares to dive in 122,000-gallon Underwater Astronaut Trainer.

have an opportunity to explore future careers by talking with current space professionals.

**MISSION PROFILE:** Stand by to launch yourself into 8 days of the best space training this side of the Astronaut Corps. Level II combines academics with flight training patterned after the astronauts' own training schedules. All students are trained in Space Shuttle flight procedures and receive academic instruction. Students are then placed in one of three tracks of study and training: Technology (payload specialist), Engineering (mission specialist), or Aerospace (commander or pilot). The three tracks combine as a team for a multi-hour mission.

**TECHNOLOGY TRACK.** Technology students design and conduct Space Shuttle experiments. They receive instruction in solar and space plasma physics, space biology, astrophysics, fluids, materials science, optics and computers. Students also train in SCUBA techniques in the Underwater Astronaut Trainer.

**ENGINEERING TRACK.** Engineering track students study robotics, engineering fields, materials science and structures to prepare for their mission specialist role. They train in SCUBA techniques and may conduct EVA's and microgravity experimentation in the Underwater Astronaut Trainer.

**AEROSPACE TRACK.** Aerospace track trainees focus on the educational requirements needed for a potential aerospace engineer, Shuttle commander or pilot, or aviation career. The academic program includes celestial navigation, meteorology, orbital mechanics and space piloting. Trainees sometimes visit an airport control tower.

**IMPORTANT:** Tracks are determined on a first-come basis according to preferences indicated on the application. Applicants will be sent required forms for physician and parent/guardian approval for SCUBA instruction. SCUBA forms (for Engineering and Technology students) should be sent at least SIX weeks prior to arrival and no earlier than 3 months prior to arrival. Recommended physical requirements: height of 5 feet, weight of 100 pounds, age 15 (age can not be wavered). All applications are subject to review by medical and diving staff.

(Certain medical conditions, such as asthma and ear problems may preclude participation in the SCUBA portion of the program.)

## **MISSION PLANNING:**

Teamwork is the key to space missions. All three Level II tracks work together in integrated group sessions to plan their Space Shuttle missions.

### **GRADUATION AND DEPARTURE:** With gradu-

ation ceremonies beginning Saturday at 1 p.m., those departing Huntsville by air should make reservations for flights after 3 p.m. Unless other arrangements have been made, luggage should be out of the dormitory by 2 p.m. Families are invited to attend graduation. (See graduation section for ticket information.)

**TUITION.** The tuition for the program includes meals, accommoda-

tions, program travel and educational materials.

NOTE TO LEVEL II PARTICIPANTS. An additional health form is required for persons who will participate in underwater SCUBA activities. Your acceptance to the program is conditional upon satisfactory completion of the second document. It will be mailed to you with your confirmation form following registration.

"I had a great time, I can't wait till I get the chance to come again. It was a very educational, enjoyable and exhausting time."

Fidalma Kissell Pennsylvania

Commander and pilot pause in Atlantis flight deck prior to simulated mission. The flight deck was used in the motion picture "Space Camp."



# **ADULT PROGRAMS**

**DULTS BECOME "WEEKEND** ASTRONAUTS" OR "FIGHTER PILOTS" DURING CONDENSED VERSIONS OF THE POPULAR SPACE ACADEMY AND AVIATION CHAL-LENGE PROGRAMS.

# ADULT SPACE ACADEMY LEVEL I:

Adults can join in the excitement of learning about the Shuttle. While program material might not be challenging enough for pilots, engineers and aerospace-trained personnel, the broad range of subjects and activities brings a unique astronaut experience within the grasp of the general public and professionals alike.

DAY ONE: (Each participant is responsible for Thursday night lodging.) After registration and check-in Friday at 8 a.m., staff members conduct an orientation on the Space Shuttle, mission simulation and astronaut training activities. Participants learn that the Shuttle's propulsion system was developed in Huntsville by NASA and its contractors. The trainees are divided into teams for mission preparation. The active, hands-on program continues with simulator orientation. Participants experience activities in three space walk simulators: the Five Degrees of Freedom, the Manned Maneuvering Unit and the 1-G Trainer.

**DAY TWO:** Team members take turns inside the Multi-Axis Trainer while other trainees experience triple gravity in the Centrifuge and tour the Earth's largest space museum. In the



Adults experience the excitement of astronaut training in three-day weekend programs. Above: A trainee celebrates the completion of her activity in the MMU with a "thumbs up" sign.

next period, the schedule is reversed. Then one group takes positions in mission control and the shuttle simulator for mission practice, while others experience one-sixth gravity in a device similar to the one that trained Apollo astronauts to walk on the Moon. In each mission, the 20 members are divided into two groups. The flight crew strap themselves inside the Shuttle trainer for countdown and launch. During space walks, mission specialists wear space suits and use the remote manipulator arm to build large space structures.

**DAY THREE:** The final day goes by quickly, with the second round of shuttle simulations. Team members who performed tasks in mission control take their seats in the Shuttle or Space Station and flight participants fulfill their new duties in ground control. Recipients of The Right Stuff awards are announced, along with presentation of wings and certificates. Visiting astronauts frequently attend graduation. Scheduling constraints determine which astronauts are available to visit with participants. Graduation is at 3:00 p.m.

# ADULT SPACE ACADEMY LEVEL II:

Special 8-day sessions of the Level II program are conducted for adults. Previous training in the weekend Level I program is recommended. Participants receive specialized training in the three tracts as outlined, in the Space Academy Level II section on pages 12-13. Lengthy missions are conducted with participants from all of these tracts.

**ARRIVAL** is on Saturday from 1 p.m. to 5 p.m., and begins with orientation.

**GRADUATION** is the following Saturday at 1 p.m.

# **SESSIONS:**

Nov. 2-9 Nov. 9-16 Nov. 30-Dec. 7 Dec. 7-14

# ADULT AVIATION CHALLENGE WEEKENDS:

Adult pilots and would-be pilots become jet jockeys for the weekend on the simulators at the exclusive Aviation Challenge training center.

# ARRIVAL AND DAY ONE:

(Each participant is responsible for Thursday night lodging.) Check in Friday at 9 a.m. After a study of water survival procedures, climb to the helicopter level of the 40-foot tower and slide in a 100-foot gradual descent down the tower wire into the lake, just as you would if landing at sea by parachute. Learn to disentangle from a parachute to board a life raft. Study low-level navigation and tactical maneuvering.

**DAY TWO:** Show up with calm nerves and a steady hand as you climb into realistic simulators for instructions in airport operations and precision aeronautics. Review aircraft carrier qualifications and learn the basics of air-to-air intercepts. You'll learn how to outmaneuver your aerial nemesis and set your jet down on the thin, white line of a carrier to a thumbs-up reception. Then, school is out. Strap into the jump seat of a simulator and get ready for an exciting mission.

### DAY THREE AND DEPARTURE: It's your turn to

assume the controls. Grip the stick,

A young woman buckled up for safety experiences "roll" in the MMU 1-G Trainer.



check the instruments and you're off for the flight simulation of a lifetime. It's okay to believe this is Miramar and you're the ace jet jockey. Graduation at 1 p.m. includes the presentation of the top fighter pilot award.

### ADULT SPACE ACADEMY LEVEL I AND ADULT AVIATION CHAL-LENGE (3-DAY PROGRAMS)

Contraction (Contraction	a and was and
May 3-5	Sept. 27-29
*May 17-19	Oct. 4-6
June 7-9	Oct. 11-13
July 5-7	Oct. 18-20
Aug. 2-4	Oct. 25-27
Sept. 6-8	*Nov. 1-3
Sept. 13-15	*Nov. 8-10
Sept. 20-22	
*Space Academy Lev	el I Only

*TUITION.* The registration fee includes meals and dormitory accommodations. See pages 18-19 for tuition and schedule.

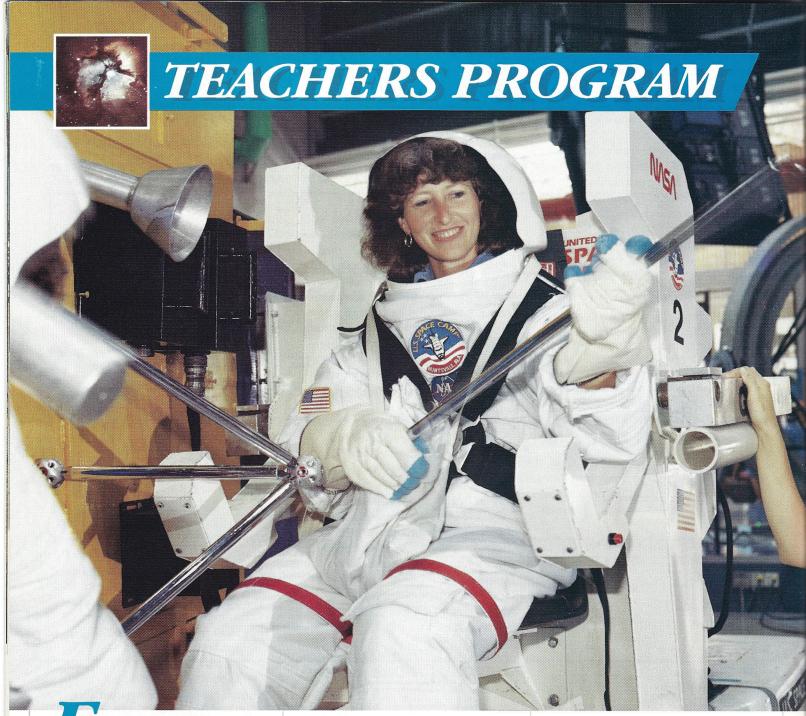
# PARENTS AND YOUNGSTERS TOGETHER:

Special Parent/Child sessions of Space Camp are available for the first time in 1991 on four holiday weekends. Parents and their youngsters will participate together in various activities throughout the weekend, culminating in a shuttle mission. Recommended for children age 6-12.

Mother's Day (May 10-12); Memorial Day (May 24-26); Father's Day (June 21-23); Labor Day (Aug. 30-Sept. 1); Tuition is \$400 for one parent and one child. Phone for special brochure.

"I ordered the application for my grandson. When I got it and saw that there was a program for adults, I came instead. I'm having a blast."

Mildred Coleman St. Louis, MO



**E**ducators may choose from among several programs with university credit and one inservice program.

A unique partnership of sponsors brings classroom teachers up-to-date on subjects involving mankind's adventure into space and offers training to better relate to today's students – the leaders of the 21st century.

# LEVEL I EDUCATOR, ALABAMA

The program is in response to educators who wish more "hands-on" activities than is offered in the Universityaccredited "Teaching the Future" program. (Apply locally for in-service credit.)

**SESSIONS:** The new Level I Educator program offers practical, "hands-on" space science applications and intensive astronaut training.. Housing, from Sunday night through Friday noon is provided at a suites hotel one mile from the Space Center. Meals from Sunday night dinner through Friday breakfast are provided. Transportation is provided.

The 5-day course begins with registration on Sunday at 2 p.m. and concludes Friday by 9 a.m. Dates are:

Dates are.	
March 17-22	June 23-28
April 7-12	July 7-12
April 14-19	July 14-19
April 21-26	July 21-26
June 2-7	July 28-Aug. 2
June 9-14	Aug. 4-9
June 16-21	Aug. 11-16



A teacher's smile as she spins in the Multi-Axis Trainer is reflected by those of fellow educators awaiting their turns. Similar training devices were important to Mercury and Gemini astronauts who learned to concentrate on the flight panel should their space craft tumble out of control.

# TEACHING THE FUTURE, ALABAMA:

U.S. SPACE ACADEMY is offered jointly with The University of Alabama in Huntsville and is supported by NASA's Marshall Space Flight Center. Attendees receive 3 semester hours of graduate credit in elementary or secondary education or science. Meals from Sunday night through Friday lunch are provided. Housing is at the nearby Bevill Center. Transportation is provided.

**SESSIONS:** The 5-day course begins with registration on Sunday at 4 p.m. and concludes Friday by 3 p.m. Dates are:

June 16-21
July 7-12
July 21-26
Aug. 4-9

# TEACHING THE FUTURE, FLORIDA:

U.S. SPACE ACADEMY is offered jointly with The University of Central Florida and is supported by NASA's John F. Kennedy Space Center. Participants may apply separately to obtain 3 hours of graduate credit from UCF. Lodging at a local hotel facitity and meals are included. **SESSIONS:** The 5-day course begins with registration on Tuesday at 5 p.m. and concludes Sunday at 3 p.m. Dates are:

Mar. 26-30June 16-21Apr. 16-21June 25-30Apr. 30-May 5July 30-Aug. 4May 7-12Aug. 13-18May 14-19July 30-Aug. 4

# **MISSION PROFILE:**

The accredited "Space Orientation for Professional Educators" courses in Alabama and Florida introduce educators to a wide variety of space related subjects from leading experts in the corporate, NASA and university communities. The program consists of five days of intensive lecture time. Educators train for and participate in two hours of Space Shuttle simulated missions, performing tasks as a member of the crew or at mission control.

# **CURRICULUM:** Topics

covered in lectures and presentations are varied and extensive. A partial list includes NASA's past, present and future; rocket propulsion, mission training, Space Shuttle, Hubble Space Telescope, Space Station, astronomy, celestial navigation, impact of space technology, space physiology, optics, lasers and holography, large-screen theater film presentations, Curriculum/lesson planning review, and NASA educator resource library.

# WHAT TO BRING:

Long pants, shorts, sleepwear, comfortable shirts, closed-toe shoes, personal grooming articles, wristwatch, notebook, clothes hangers, cameras. In Florida: sunscreen, bug repellent. (Note: Some sites at Kennedy Space Center do not allow flash photography.)

# AEROSPACE EDUCATION

A 9-day aerospace program for teachers conducted at the University of Oklahoma in Oklahoma City includes 3-days in the U.S. Space Academy in Huntsville. Dates are June 16-24 and July 21-29, 1991. Registration fee covers 2 semester hours of graduate credit, air travel to Alabama, training in OU aircraft, meals, lodging and materials. Enrollment is limited to 40 per session. Write or phone the Reservations Department for complete details.

Teacher is checked out by University of Oklahoma Instructor.



# **1991 SESSION DATES**

# U.S. SPACE CAMP ALABAMA U.S. SPACE ACADEMY I

SESSION	DATE	SESSION	DATE	SESSION	DATE	SESSION	DATE
6	FEB. 10-15	17	APRIL 28-MAY 3	28	JULY 14-19	39	SEPT. 29-OCT.4
7	FEB. 17-22	18	MAY 5-10	29	JULY 21-26	40	OCT. 6-11
8	FEB. 24-MAR. 1	19	MAY 12-17	30	JULY 28-AUG. 2	41	OCT. 13-18
9	MAR. 3-8	20	MAY 19-24	31	AUG. 4-9	42	OCT. 20-25
10	MAR. 10-15	21	MAY 26-31	32	AUG. 11-16	43	OCT. 27-NOV. 1
11	MAR. 17-22	22	JUNE 2-7	33	AUG. 18-23	44	NOV. 3-8
12	MAR. 24-29	23	JUNE 9-14	34	AUG. 25-30	45	NOV. 10-15
13	MAR. 31-APRIL 5	24	JUNE 16-21	35	SEPT. 1-6	46	NOV. 17-22
14	APRIL 7-12	25	JUNE 23-28	36	SEPT. 8-13	47	DEC. 15-20
15	APRIL 14-19	26	JUNE 30-JULY 5	37	SEPT. 15-20	48	DEC. 29-JAN. 3
16	APRIL 21-26	27	JULY 7-12	38	SEPT. 22-27		

# SPACE CAMP FLORIDA

SESSION	DATE	SESSION	DATE	SESSION	DATE	SESSION	DATE
17	MAR. 3-8	33	APRIL 28-MAY 3	49	JUNE 23-28	65	AUG. 18-23
19	MAR. 10-15	35	MAY 5-10	51	JUNE 30-JULY 5	67	AUG. 25-30
21	MAR. 17-22	37	MAY 12-17	53	JULY 7-12	69	SEPT. 1-6
23	MAR. 24-29	39	MAY 19-24	55	JULY 14-19	71	SEPT. 8-13
25	MAR. 31-APRIL 5	41	MAY 26-31	57	JULY 21-26	73	SEPT. 15-20
27	APRIL 7-12	43	JUNE 2-7	59	JULY 28-AUG.2	75	SEPT. 22-27
29	APRIL 14-19	45	JUNE 9-14	61	AUG. 4-9	77	SEPT. 29-OCT. 4
31	APRIL 21-26	47	JUNE 16-21	63	AUG. 11-16		

# **AVIATION CHALLENGE**

# BASIC 7<sup>TH</sup>, 8<sup>TH</sup>, 9<sup>TH</sup> GRADES

SESSIO	N DATE	SESSION	DATE	
5	JUNE 2-7	14	AUG. 4-9	
6	JUNE 9-14	15	AUG. 11-16	
7	JUNE 16-21	16	AUG. 18-23	
8	JUNE 23-28	17	AUG. 25-30	
9	JUNE 30-JULY 5	18	SEPT. 1-6	
10	JULY 7-12	19	SEPT. 8-13	
11	JULY 14-19	20	SEPT. 15-20	
12	JULY 21-26	21	SEPT. 22-27	
13	JULY 28-AUG. 2			

### INTERMEDIATE 10<sup>TH</sup>, 11<sup>TH</sup>, 12<sup>TH</sup> GRADES

SESSION	DATE	SESSION	DATE
1	MAY 5-10	14	AUG. 4-9
2	MAY 12-17	15	AUG. 11-16
3	MAY 19-24	16	AUG. 18-23
4	MAY 26-31	17	AUG. 25-30
5	JUNE 2-7	18	SEPT. 1-6
6	JUNE 9-14	19	SEPT. 8-13
7	JUNE 16-21	20	SEPT. 15-20
8	JUNE 23-28	21	SEPT. 22-27
9	JUNE 30-JULY 5	22	SEPT. 29-OCT. 4
10	JULY 7-12	23	OCT. 6-11
11	JULY 14-19	24	OCT. 13-18
12	JULY 21-26	25	OCT. 20-25
13	JULY 28-AUG. 2	26	OCT. 27-NOV. 1

# **SPACE ACADEMY II**

SESSION	DATE	SESSION	DATE	SESSION	DATE	SESSION	DATE
5	FEB. 2-9	17	APRIL 27-MAY 4	30	JULY 20-27	42	OCT. 12-19
6	FEB. 9-16	18	MAY 4-11	31	IULY 27-AUG. 3	43	OCT. 19-26
7	FEB. 16-23	19	MAY 11-18	32	AUG. 3-10	44	OCT. 26-NOV. 2
8	FEB. 23-MAR. 2	20	MAY 18-25	33	AUG. 10-17	45	NOV. 2-9
9	MAR. 2-9	21	MAY 25-JUNE 1	34	AUG. 17-24	46	NOV. 9-16
10	MAR. 9-16	23	IUNE 1-8	35	AUG. 24-31	47	NOV. 16-23
11	MAR. 16-23	24	IUNE 8-15	36	AUG. 31-SEPT. 7	48	DEC. 14-21
12	MAR. 23-30	25	IUNE 15-22	37	SEPT. 7-14	49	DEC. 28-JAN. 4
13	MAR. 30-APRIL 6	26	JUNE 22-29	38	SEPT. 14-21		Sector-record office and
14	APRIL 6-13	27	JUNE 29-JULY 6	39	SEPT. 21-28		
15	APRIL 13-20	28	JULY 6-13	40	SEPT. 28-OCT.5		
16	APRIL 20-27	29	JULY 13-20	41	OCT. 5-12		

# HOW TO REGISTER

Registrants may use a credit card to reserve a specific session by phone, and should then forward the completed application by mail. Phone toll-free to the Reservation Center for assistance at:

# 1-800-63 SPACE

We accept Visa, MasterCard, Discover Card and the American Express Card. NOTE: Your account will be billed at the time of your reservation.

Registration may also be made by mailing the completed application with appropriate choices of date reduce their enrollment fee by \$50 each. Only a limited number are available. This is available for sessions prior to May 31, 1991. Easter sessions from March 23 thru April 13 do not apply. Ask the reservation agent for details about this or any other savings. Available only for participants in Space Camp sessions.

# DATE CHANGE FEE: You

are entitled to change your session date once with no charge. Any transfer of sessions afterward is

Program		*		
Youth Sessions	Days	FebMay*	June-Aug.	SeptDec
SPACE CAMP-Alabama	5	\$450	\$550	\$425
SPACE CAMP-Florida	5	\$450	\$550	\$425
SPACE ACADEMY Level I	5	\$500	\$600	\$475
AVIATION CHALLENGE (Both)	5	\$650	\$650	\$650
SPACE ACADEMY Level II	8	\$675	\$675	\$675
Adult Sessions				
Adult ACADEMY LEVEL I	3	\$450	\$450	\$450
Adult AV. CHALLENGE	3	\$500	\$500	\$500
Adult ACADEMY LEVEL II	8	\$675	\$675	\$675
TEACHERS LEVEL I	5	\$625	\$625	\$625
TEACHING THE FUTURE	5	\$750	\$750	\$750

\*Easter tuitions from March 23 through April 13 are the same as June-August session. Tuitions are subject to change without notice.

(pending availability) with a check or money order payable to "U.S. Space and Rocket Center." You will receive a printed Confirmation Notice of your registration, a Transportation Form to complete and return should your arrival be other than by car and a health form that must be completed and returned prior to arrival at Space Camp. Acceptance to the program is contingent upon receipt of these forms and completion of the Health Form to the staff's satisfaction.

An alternate method of registration is to complete the application form with the appropriate credit card information indicated and send it by FAX to number 205-837-6137.

# SAVE \$50 WITH A

**FRIEND:** Space Camp trainees who enroll at the same time in the Space Camp program, either by mail or phone, for the same session can

subject to a \$25 charge per session change. If you transfer from one year to another, you are subject to a \$50 transfer fee at the time of transfer and any applicable increase in tuition. (Rates subject to change. We reserve the right to cancel or change dates.)

PLEASE NOTE. Keep this booklet until you leave home. It will answer your questions about transportation, items to bring, graduation, etc.

### WAITING LISTS: If the

session of your choice is filled, the Reservations Staff can place you on the waiting list for available openings. You must pay full fee for the session at the time you register for the waiting list. Waiting list reservations are refunded at 100 percent if you choose to cancel or no openings become available. Refund is made according to the method of payment used to make the reservation.

# GIFT CERTIFICATES: for all

programs are available and are suitable for presentation for Christmas, birthdays and other special occasions.

**REFUNDS:** Should it become necessary to cancel registration, a portion of the tuition is refunded on the following schedule:

• 90 percent of the fee is returned if written notice is received 8 weeks or more prior to the session start..

• 80 percent of the fee is returned if written notice is received 5 weeks or more prior to the session start.

• 75 percent returned upon written notice received 4 weeks prior to the session start.

• 50 percent returned upon written notice received 3 weeks prior to the session start.

• Refunds will be issued in the same manner in which payment was made.

• Cancellation received 2 weeks or less before the opening day forfeits the tuition. Trainees who must leave during training for emergency reasons or illness (by approval of the program director) may be invited to return at a future date at no additional tuition. Trainees who leave for other reasons (homesickness, etc.) will receive no refund.

# SCHOOL GROUP RATES:

Schools may receive special group rates for sending more than 10 persons to attend sessions in Alabama and Florida prior to June, except during the Easter period.

A 50-percent deposit is required 60 days after the reservation is made, with final payment due 60 days prior to arrival. Two weeks following the reservation the coordinator will receive a confirmation notice, with deadlines for the return of application/health forms and payment schedule. Contact the Group Reservations Office at 1-800-63 SPACE for complete printed information on group policies and procedures.

# **IMPORTANT INFORMATION**

# WHAT TO BRING: The

average spring and fall temperature is 65 degrees and the average summer temperature is 88 degrees.

PACK IN A CLOTH BAG! Don't overpack!

- copy of health form
- shirts/blouses
- notebooks/pens
- any needed medication
- blue jeans
- suntan lotion
- walking and/or tennis shoes
- sleepwear
- wristwatch
- toothbrush/toothpaste
- swimwear (Not Adults)
- raincoat
- comb/brush
- soap
- jacket (spring/fall)
- shorts (in good taste)
- old tennis shoes (AVIATION CHALLENGE only)
- combination padlock

# **MONEY TRANSFER:**

Trainees who need emergency funds may receive cash advances. A parent/guardian may use a credit card to provide cash to the trainee. For the Alabama program, phone 205-721-7185. For the Florida program, phone 407-269-6100. We strongly recommend that trainees bring funds in travelers checks only. SPACE CAMP provides a deposit service, but cannot accept liability for items or cash not in our possession.

Upon arrival, trainees may purchase "Shuttle Bucks," which are a form of travelers checks that may be cashed for merchandise only by the purchaser. After 3 weeks, they are reimbursable if lost or stolen. Shuttle Bucks are recommended; however, trainees may also bring travelers checks purchased at any bank.

# HOUSING IN ALABAMA

is provided in the Space Habitat complex. Trainees are housed in the complex according to program



needs. (Note: It is not possible to guarantee lodging in a specific unit of the Habitat.) Open bay environments in Habitat II are mainly utilized for Space Camp children under supervision. AVIATION CHALLENGE participants are housed in the new AVIATION CHALLENGE facilities. Teacher lodging is double occupancy.

# **HOUSING IN FLORIDA**

is planned as modular housing onsite. If delays occur, a private wing of a motel with its own security will be utilized. The following items are furnished at each location:

- 2 towels
- 2 sheets
- 1 pillow
- 1 bath cloth
- 1 blanket
- 1 pillowcase

**MEALS** are provided from afternoon arrival through graduation by one of America's finest foodservice operations, whose locations include many universities, federal agencies and Congress. Meals in Alabama are served in the Training Center cafeteria, which is also open to the public. Meals in Florida will be served onsite or at a cafeteria near the lodging facility. Snacks are available at several locations during break periods. Soft drinks, crackers and other items are stocked in vending machines at various sites.

**HEALTH CARE:** The health and safety of our trainees is a matter of the highest concern to us. Nurses are on duty regularly during program hours and on call 24 hours a day. For an accident or illness requiring outside treatment or special prompt care for your child, a Health Information Sheet will be included in your Confirmation package and must be completed and returned before arrival. Please make extra copies of your health form to keep and also bring one with you.

Some of the simulators used actually simulate various aspects of spaceflight and may cause motion sickness for those prone to motion sickness. Some training devices have maximum

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and minimum height and weight restrictions, with maximum weight of 260 lbs. Participation in the simulator activities is not a requisite for graduation. Also, for safety or maintenance reasons, simulators used by the trainees may vary.

# **RESPONSIBILITY:**

Replacement or repair costs of furniture, supplies or other materials will be charged to parents/guardians of trainees associated with any such acts, at the direction of the director. NOTE: All trainees are responsible for their belongings. SPACE CAMP assumes NO liability for lost or stolen items.

**PHONE CALLS** can not be received by participants on a routine basis because they are involved in many areas of the facility and tour other space-related centers in the area. Pay phones are located throughout the facilities for use by trainees during break times each day.

In case of an emergency, call the Huntsville switchboard 205-837-3400 or Duty Office 205-721-7185 at any hour day or night. (Note: the toll-free number can not transfer to these lines.)

In case of an emergency regarding a Florida trainee's family, the daytime number is 407-269-6100. The evening number will be provided in the confirmation materials.

## **OPTIONAL** ACCREDITATION:

The advanced programs offered by the U.S. SPACE CAMP program are recognized by several of the nation's major universities. The programs are associated with the University of Oklahoma, the University of Alabama at Huntsville and the University of Central Florida.

These universities provide supervision of program material and award optional undergraduate credit to those participants who request it. The administration fees collected by SPACE CAMP are forwarded to the appropriate university's Registrar's Office for processing. Documents are normally mailed from the universities to the participants within eight weeks after attending the programs.



# INTERMEDIATE AVIATION CHALLENGE:

Through special arrangement with the University of Oklahoma, juniors and seniors attending Aviation Challenge may receive one optional hour of college credit. The university is recognized by the Federal Aviation Administration as one of the nations's leading training centers for commercial and general aviation pilots. The optional fee charged by the University of Oklahoma and payable through the Space Center's reservation system is \$70. **MAIL** can be received at the following address: **IN ALABAMA:** NAME, DATE REGISTERED SPACE CAMP (or SPACE ACADEMY) One Tranquility Base Huntsville, AL 35807

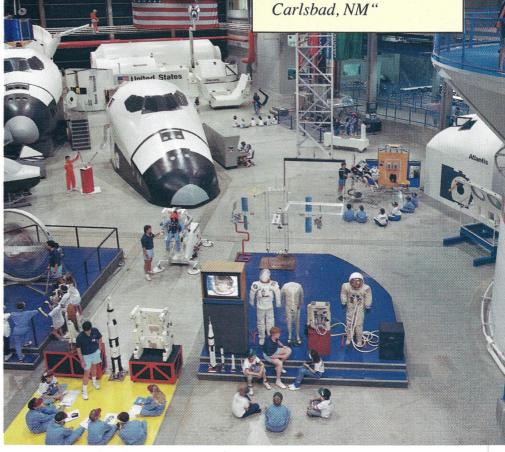
### IN FLORIDA:

NAME, DATE REGISTERED U. S. SPACE CAMP NASA Parkway Titusville, FL 32780

Please allow 4 to 5 days for mail delivery from more than 100 miles away. Also, for timely delivery, please put the date of the session for which the person is registered on the envelope.

"Space Camp was a wonderful experience for our son. He said it was the best week of his life. We were pleased with every part of camp."

Barbara Gibson Carlsbad, NM"



# STAYING OVER? Consult

the appropriate section in this booklet for your program's start and conclusion times. Oftentimes, airline and bus schedules require trainees to arrive early or leave late. Counselor supervision, meals and lodging are available at the following rate:

• All early-arrival or late-departure charges are payable four weeks before arrival.

• \$60 fee for overnight accommodations, meals and supervision.(Not available to adults.)



**SCOUTS EARN MERIT BADGE!** Girl Scouts and Boy Scouts can complete the requirements of the Aerospace or Space Exploration Merit Badge during SPACE

CAMP. Scouts must bring their blue card for SPACE CAMP staff to sign. Girl Scouts please check with your local chapter for appropriate form.

**SCHOLARSHIPS:** Scholarships funded by corporations and individuals are matched by The U.S. Space and Rocket Center to make the programs in Alabama and Florida available to as many youngsters as possible.

Students choose the categories in which they wish to compete: Scholastic Achievement, Ethnic Background and Financial Need.

The competition is based on short essays submitted by applicants. To receive topics and entry information, write (do not phone) Scholarship Office, U.S. SPACE CAMP, U.S. Space and Rocket Center, One Tranquility Base, Huntsville, AL 35807.

Because sessions fill quickly, you might wish to consider registering while pursuing a scholarship. Should you receive a scholarship, your tuition will be refunded. (A number of youngsters who waited last year to learn if they received a scholarship before attempting to enroll were unable to attend because sessions were filled). **You do not have to preregister in order to apply for a scholarship.** 

Deadlines for receipt of completed essays are Jan. 1 and June 1. Winners will be notified by the end of the respective months. Entries are not carried forward to the next competition. Scholarship recipients will attend during the school year.

"The idea of Space Camp originated with the rocket pioneer Wernher von Braun who envisioned a program that would allow young people to become involved in science as Little League, for example, helps build interest in baseball."

The New York Times

# **TRANSPORTATION**

# AIRLINE RESERVATIONS:

Delta Air Lines, the Official Airline for Kids<sup>™</sup>, is also the official airline of the U.S. Space Camp, with daily service from 175 cities to Huntsville, Alabama and Orlando, Florida.

To receive the lowest available discount fares and to avoid paying an Unaccompanied Minor Fee, just call Delta Air Lines reservations at

# 1-800-241-6760

from 8 a.m.-8 p.m. Eastern Time. Be sure to ask for the file "SPACE CAMP." Your airline ticket will be mailed to you at the appropriate time by the SPACE CAMP Airlines Desk.

If you're traveling in a group, you can also take advantage of special group discount airfares by calling the tollfree number above.

As the Official Airline for Kids, Delta offers a Fantastic Flyer program for passengers aged 2-12. The free program, hosted by Dusty the Delta Air Lion, features a quarterly magazine with activities of interest to young flyers, particularly first-time and unaccompanied passengers.



**IMPORTANT DETAILS:** As soon as the SPACE CAMP attendees board a Delta Air Lines plane, they are in good, safe hands. Delta makes sure they are comfortable and enjoying every moment of their journey with fun magazines, delicious food, and any assistance they may need on connecting flights. When they arrive in Huntsville or Orlando, they will feel rested and ready for all of the fun that awaits them at the U.S. SPACE CAMP!

Please complete the TRANSPORTA-TION FORM that you receive with your Confirmation Notice and return it no later than 4 WEEKS prior to scheduled arrival. This will ensure assistance and pick-up. Verification of transportation will be mailed prior to arrival if you have notified the staff of your plans.

If we still have not received the Transportation Form 2 WEEKS prior to the program date, we will assume you are arriving by car and, therefore, we will not have personnel scheduled to meet your plane or bus. For trainees who are not arriving by automobile, a SPACE CAMP staff member will be waiting at the airport or bus station.

If there is any change in your transportation arrangements, or if the method of transportation changes from that indicated on your application, please notify our transportation office immediately. Then we can make any necessary changes to assist you.

If you have a transportation problem en route or upon arrival, call the SPACE CAMP office at 205-837-3400 in Alabama or 407-269-6100 in Florida. Identify yourself and state your present location and problem, and we will assist you. But do not leave the airport or bus terminal.



# VIDEOS, FLIGHTSUITS AND SUMMER UNIFORMS

# TEAM VIDEOTAPE: A

videotape of activities during your week at SPACE CAMP and SPACE ACADEMY Level I is available by prior arrangement on a limited, firstcome basis for \$45, which includes shipping and handling. This tape, which must be ordered upon registration, shows most of the week's activities including you and each of your team members for about three minutes each.



*IMPORTANT:* Coming with a friend? If you order a videotape AND express a teammate preference, **the friend will be on the same videotape ONLY if he/she also reserves a tape.** Otherwise, an order for a video will automatically override teammate preference. It is not possible to order a video after arrival.

Reserve your tape when making the session reservation by phone and/or complete the appropriate section of the Application Form and forward it by mail. Persons who are on a video team will be taped several times during their training activities. About 6 weeks following graduation, you will receive a 40-minute VHS tape. Video orders are accepted UNTIL one week prior to the start of the session. **Videotapes are not available for AVIATION CHALLENGE, SPACE ACADEMY LEVEL I, Adult and Educator trainees.** 

Should we not be able to accommodate your video order, you will receive a refund.



**FLIGHTSUITS:** Official flightsuits with emblems and the American flag are available either by pre-payment or purchase after arrival for \$75. Our flightsuits are similar to those worn by the astronauts. Should you wish to pay in advance, complete the appropriate space on the Registration Form and add \$75 to the total figure for your check or credit card payment. Please state your size when ordering.

**UNIFORM.** In place of the flightsuit, the trainee may prefer a Summer or Winter package:

SUMMER-2 T-shirts, 2 shorts and 1 windbreaker.

WINTER-1 sweat shirt, 1 sweat pants, 1 pair of shorts, 1 T-shirt and 1 windbreaker. Available with logos of either SPACE CAMP or SPACE ACADEMY.

### SPACE GEAR AVAILABLE BY

*MAIL.* You can order Official SPACE GEAR clothing, mission insignias, books, videos and other items by mail. To receive a colorful Gift Shop catalog, phone 1-800-533-7281.



*GIFT SHOPS* are located onsite in Alabama and Florida for participants to visit during breaks and after graduation. A large selection of official Space Gear clothing, NASA mission insignias, books, postcards and spacecraft models are available for purchase or mail order. (A survey of parents indicates trainees spend an average of \$75 on gifts, souvenirs, books and snacks). Also available onsite in Alabama is Fuji one-hour photo film processing.

# **U.S. SPACE & ROCKET CENTER**

The U.S. Space & Rocket Center, which established the U.S. SPACE CAMP in 1982, is America's largest showcase of space technology and is widely noted for its "learn by doing" exhibits related to astronaut training and rocket technology. It is Alabama's top tourist attraction.

The attraction includes America's only full-scale Space Shuttle model, the Apollo 16 command module spacecraft returned from lunar orbit and the full-scale model of Skylab. Also featured are rockets developed in Huntsville that launched America's first satellite; the first astronaut into space, Alan Shepard; seven crews of Apollo astronauts to the Moon; and Space Shuttles.



The Spacedome Theater has a 67-foot domed screen and state-of-the-art sound system that will take you for a ride to the stars through the eyes of the Space Shuttle astronauts. Astronauts narrate "The Blue Planet," the new Omnimax<sup>®</sup> feature filmed by several crews in orbit. As NASA's official visitor center, the U.S. Space & Rocket Center provides the only public access to NASA's Marshall Space Flight Center through its bus tours.

Trainees in 1991 will see "Red Star in Orbit," an exhibition of Soviet spacecraft shown outside Russia for the first time. Soviet space program experts will lecture on the exhibit to trainees in Huntsville.

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# ALABAMA GRADUATION

Family members are invited to participate in Huntsville graduation activities at the conclusion of each session. You'll want to attend the morning program to see your youngster graduate, then enjoy a leisurely tour of the Space & Rocket Center attractions afterward.

You'll receive two free tickets for the Space Center attraction, Spacedome Theater and NASA Bus Tour.



Indoor pool at nearby Huntsville Marriott.

# Marríott

While in Huntsville, stay at the Huntsville Marriott on the grounds of the U.S. Space and Rocket Center. Call the hotel at 205-830-2222 and ask about availability of the special Space Camp family rates for Friday, Saturday and Sunday. Ask about specials for other nights. The hotel offers comfortable guest rooms overlooking the Space Center, an indoor-outdoor swimming pool, family dining in Season's restaurant and other amenities.



# DELTA IS OFFICIAL AIRLINE

To receive special airline rates from Delta Air Lines so that the entire family can enjoy graduation and tour Space Camp facilities, phone Delta toll-free at 1-800-241-6760 from 8 a.m.-8 p.m. Eastern Time for airline reservations.



car and truck rental

# BUDGET IS OFFICIAL RENT A CAR

Enjoy the attractions of the area by accepting a special offer for Space Camp families from Budget Rent a Car, the official car rental company of U.S. Space and Rocket Center. Phone their Special Services Desk at 1-800-772-3773 and you'll get a discounted rate on your car.

# **TOURING**

Seven miles from the Space Center is the Twickenham Historic District, with many homes dating from the 1820's and 1830's, and comprising Alabama's largest antebellum district. The 1819 Weeden House is a popular museum. Constitution Hall Village is a half-block "living village" of reconstructed buildings on the site where Alabama became a state in 1819. The Huntsville Depot is a transportation museum dating from the Civil War. The Huntsville Museum of Art, downtown on Clinton Street, adjoins the Von Braun Civic Center. Overlooking the city from atop Monte Sano mountain is the Burritt Museum, which features items of local interest. Phone the Huntsville Convention & Visitors Bureau at 205-551-2230 for complete information.

There's plenty to enjoy throughout the region. Decatur has its popular wave pool at Point Mallard along the Tennessee River. Ave Maria Grotto to the south in Cullman is a collection of models of religious shrines built by a monk. Ivy Green in Florence is the childhood home of Helen Keller and the basis of the play, "The Miracle Worker." The town of Boaz features shopping centers of 180 factory-owned outlet stores. For complete statewide information, phone the Alabama Bureau of Tourism and Travel at 1-800-ALABAMA. If your travel plans include Nashville, Chattanooga or Knoxville, the same rates offered by Budget Rent a Car will apply.

Mileage from Huntsville Atlanta: 196 Gatlinburg: 256 Chattanooga: 105 Birmingham: 96 Knoxville: 216 Nashville: 110



# FLORIDA GRADUATION

Plan now to bring the family and attend graduation exercises at 9 a.m. in the Training Center inside the U.S. Astronaut Hall of Fame. Afterward, tour the Astronaut Hall of Fame at no charge as guests of America's original astronauts and visit the SPACE CAMP gift shop for souvenirs of your own space adventure. Families may also visit the nearby Kennedy Space Center's Spaceport USA and tour NASA facilities.

# **U.S. ASTRONAUT HALL OF FAME**

Visit the U.S. Astronaut Hall of Fame at the entrance to the NASA-Kennedy Space Center and enter the world of the astronauts in the shadow of the launch towers that sent them from Earth!

Watch the emotion on John Glenn's face as he becomes the first American to circle the planet. Listen to Alan Shepard describe the forces of gravity as his rocket thrusts him to the edge of space. Feel the universal pride as you overhear conversations between mission control and orbiting astronauts.

Never before have astronauts told their own stories—in their own words —as they lived through the dramatic flights that redefined the word "hero."

Examine the actual space suit that Gus Grissom wore during his Mercury flight. Examine Wally Schirra's actual Mercury spacecraft on display in the Hall of Fame. Hear Schirra talk about his record Mercury, Gemini and Apollo missions.

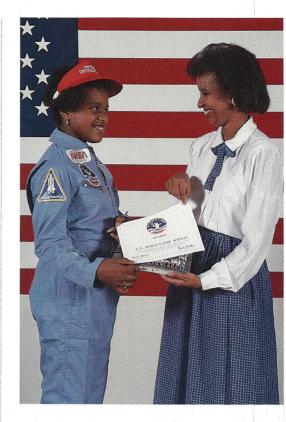
Scott Carpenter discusses the process of astronaut selection and the rigors of astronaut training. See Deke Slayton fly in space with cosmonauts and hear Gordon Cooper describe his record-setting flights. And smile at the humor that surfaced amidst their trying ordeal of unprecedented

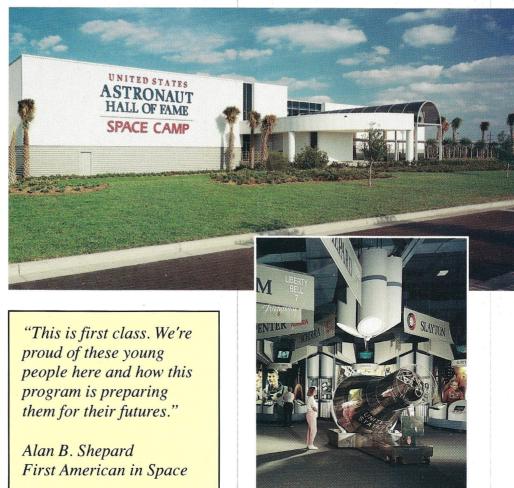


Central Florida is the nation's top family vacation destination, with many popular attractions close to the Space Coast beaches. We suggest that families visiting the Orlando-Disney World area stay at the Holiday Inn Maingate East in Kissimmee (phone 1-800-366-5437). For additional travel information on Florida's Space Coast, phone the Brevard County Tourist Development Council at 1-800-USA-1969.

training and human endurance. You'll never forget your trip into space with the first men who lived it.

You'll tour the Astronaut Hall of Fame during your visit to the U.S. SPACE CAMP campus near the Kennedy Space Center. And you'll want to visit KSC's Spaceport USA<sup>®</sup> nearby. Open 7 days a week from 9 a.m. to dusk. Phone 407-269-6100.





# **QUICK FACTS ABOUT SPACE CAMP**

• Approximately 30 percent of advanced participants have previously attended a program.

• Some 91 percent of trainees report a greater interest in science and technology after attending Space Camp.

• Sixty-five percent of trainees report actually taking additional math or science courses after attending Space Camp.

• More than one-third of the trainees are female.

• The organization which sponsors the programs is a non-profit educational institution created in 1965 with 501 (c) (3) recognition.

• The first SPACE CAMP outside the United States opened in Kitakyshu, Japan in 1990. Euro-SPACE CAMP will open in Belgium during 1991.





# Alabama Space Science Exhibit Commission The Space & Rocket Center **U.S. SPACE CAMP**<sup>®</sup>

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