

COSMONAUT FOR A DAY ADVENTURE

Spend an action-packed day inside the Yuri Gagarin Cosmonaut Training Center at Star City, experiencing and operating some of the same simulators used by cosmonauts preparing for space travel. Incredible Adventures has been arranging cosmonaut training adventures at the GCTC for individuals and groups since early 1994. Our Cosmonaut for a Day Adventure provides a great introduction to space training. Up the intensity of your space adventure by adding additional activities. Get ready to go behind the scenes and see if you are Space Worthy!

COSMONAUT FOR A DAY ADVENTURE

Our basic program includes a tour at the Gagarin Cosmonaut Training Center (GCTC) and visits to the following sites within the center:

- CF-18 Centrifuge Facility
- The Hydrolab
- The Soyuz Spaceship Simulators
- ISS Station Hall
- MIR Module
- ISS Module
- MIR Station Hall
- Vestibular Chair Training (one rotation)

Also included:

- Round-trip transfers from a central location in Moscow.
- Interpreter for your adventure day at Star City.
- Lunch at Star City.

COSMONAUT ADVENTURE PRICING: \$2,500 for one or two participants.

The Cosmonaut for a Day Adventure can easily be customized to suit your interests and budget by adding one of the options below.

HANDS-ON SPACE TRAINING OPTIONS

Add one or more of these options to your Star City Cosmonaut for a Day Adventure:

1. Space Planetarium: Experience navigation as it's done in space. The planetarium simulator projects as many as 9,000 stars and features different cockpits and panels from a variety of different spacecraft. Stars and constellations are viewed through windows similar to those of an actual space ship. Different scenarios present practice in docking and emergency situations when navigating with stars becomes crucial. The incredible beauty of the constellations "from space" is unforgettable.

2. "Sokol" Space Suit: Look and feel like a true Cosmonaut. Worn inside the Soyuz and equipped with a variety of life support systems, the Sokol suit is designed to keep the wearer alive in case of accidental depressurization of the spacecraft. It is worn during launch, docking and landing. Learn the features of the suit and how to put it on and take it off without assistance. You'll practice moving between the piloting compartment and the living compartment in the Soyuz capsule simulator while wearing this vital life saving suit.

3. Additional Vestibular Training: Test your physical ability in the vestibular chairs at Star City to see if you have what it takes to be a cosmonaut. The instructors will maneuver the simulators to see how well you tolerate different positions while in space. Expect rotating chairs and inclined tables as you experience how cosmonauts are trained to adapt to weightlessness in space and build a defense against motion sickness.

Incredible Adventures, Inc. 941-346-2603 tel / 941-346-2488 fax 6604 Midnight Pass Road, Sarasota, FL 34242 <u>www.incredible-adventures.com</u>



4. Specialized Space Food Training: Your introduction to space foods begins with the fascinating history and development of these foods and proceeds to the hands on training area. Here you'll take a seat at the special space training table and be taught the proper way to open, eat and prepare foods in space. Did you know that stray crumbs or specks of salt and pepper could be enough to clog air filters, contaminate equipment or get stuck in a cosmonaut's eyes? On board the ISS, Americans and Russians share equally in supplying foods which helps add variety to meals in space.

5 & 6. Centrifuge Training (CF-7 & CF-18): The aim of centrifuge rotation is to train cosmonauts for working under conditions of real G-loads during the ascent and descent of spacecraft. The Centrifuge is also used for carrying out training and medical examinations, scientific experiments and tests of space aviation and scientific equipment. Used since 1980 to select cosmonauts, the Centrifuge TsF-18 is the biggest in the world and has unique technical features. The weight of the centrifuge rotating elements is 300 ton and the shoulder radius is 18 meters. Maximum load is 30g.

During centrifuge training cosmonauts are affected by maximum load varying from 5g for "head-waist" direction and 8g for "chest-back" direction. Training simulates the factors of space flight such as longitudinal g-load, physiological microgravity, cabin pressure, temperature fluctuations, humidity and gas composition of the cabin's air. Your physical and psychological health will be monitored during training.

7. Hydrolab Training: The Hydrolab is used to simulate real space missions while on earth. This large tank is capable of accommodating a 20-ton ISS space module. Its approximate dimensions are a depth of 12 meters, diameter of 23 meters and a volume of nearly 5,000 cubic meters. Cosmonauts obtain approximately 80% buoyancy while in the tank. You will dress in full space gear and attempt mission tasks until you complete them correctly. (You may also watch a video about how cosmonauts work in the tank).

8. Specialized EVA Space Suit "Orlan" Simulator: The Orlan suit is designed for space walks and activities necessary outside the ISS. This is the same suit worn during Hydrolab training. Many of the tasks you'll attempt are the same ones done underwater to prepare for working in a weightless environment. Your training begins with a lecture on the Orlan's special systems and uses, and also what you can expect once you are assisted into the suit. You'll then move to an area of simulators used by real cosmonauts. The Orlan

suit is very, very heavy. Because you'll feel the full force of gravity, your movements while in the suit will be aided by a crane. You'll learn to open and close hatches and practice moving along the tether cord necessary to keep a cosmonaut from floating off into space. You'll be challenged to complete a series of realistic tasks. While training, all the suit's life support systems will be turned on.

9. Spacecraft Simulator "Soyuz-TMA": With this simulator you have an opportunity to learn the construction of the "Soyuz-TMA". It allows crews to train for all stages of flight: pre-launch preparation, insertion into orbit, autonomous orbital flight, docking with the manned orbital station, re-entry and landing.

10. Manual Docking Simulator "Don-Soyuz": This simulator allows you to train with the real manual controls of a spacecraft, the same as cosmonauts do for executing rendezvous, docking and undocking with the ISS.

11. International Space Station Simulator: This full-scaled simulator gives you an opportunity to feel like you're on board the real International space station and to learn the construction of the ISS Russian segment. It is used for training space crews for execution of an entire flight program on board the ISS.

All pricing is based on current exchange rates and subject to change prior to purchase. Advance security clearance is required. A medical exam may be required and you must sign a release of liability in order to participate. Groups are welcome and custom quoted upon request.

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Cosmonaut Adventures

These are a few of our most popular programs. Additional training options are available. Contract Incredible Adventures at 800-644-7382 to learn about custom training options.

Cosmonaut for a Day: \$7,645+ Space Suits & Space Foods

Spend an action-packed day inside the Yuri Gagarin Cosmonaut Training Center at Star City, using the same simulators cosmonauts use to prepare for space travel.

Explore the MIR, Soyuz-TM and International Space Station Simulators. Experience complete training in the Vestibular chairs and drum. View the hydrolab from a special observation deck. See the 7m and 18m centrifuges. Learn how to prepare and eat a meal in space. train in the Orlan-DMA Space Suit; this is the suit worn during space walks. Subject to their training schedule, meet a Cosmonaut.

The following training options may be added to your Cosmonaut for a Day Adventure for additional cost:

Training in the manual docking simulator Training in Sokol Space Suit used during in flight operations Train in the small (7m) centrifuge Train in the large (18m) centrifuge

Cosmonaut for a Day Package: \$10,245

Includes training and 4 days, 3 nights at a four star hotel in Moscow (single occupancy), security clearance, airport transfers and guided tour of Moscow.

Experience Zero-Gravity \$6,600+

Climb aboard the Illyushin-76 MDK...the same plane used to train cosmonauts from all over the world to maneuver in a weightless environment.

Be prepared to fly and float about the cabin, under the expert guidance of your Russian training crew.

Your instructors will assist you as you perform floating maneuvers, including rolls, spins and somersaults.

Zero-G Adventure Package: \$8,900+

Includes 4 days, 3 nights at a four star hotel in Moscow (single occupancy), security clearance, guided tour of Moscow and airport transfers.

Pricing for all programs is estimated only...please call for current rates and custom programs.

Train in the Hydrolab

Incredible Adventures offers the rare opportunity to train in the same underwater training center used by cosmonauts to prepare for space walks. The "free space simulator" is open to all divers who meet the height and weight requirements established by the Russian Space Agency.

The hydrolab features a water depth of 12 meters and measures 23 meters in diameter. In the hydrolab, crews acquire and master the skills necessary to accomplish operations on the external surface of an orbital space station. The tank is also used to perform ergonomical tests on space suits and equipment. Participants in the Incredible Adventures Hydrolab Adventure will wear an Orlan space suit fitted with health sensors while they complete a simulated space mission in the aquarium.

Sample Itinerary

Fitted for "Orlan" space suit. Develop working plan and receive instructions near aquarium. Dress in Orlan Space Suit and attach sensors for health monitoring. Immersion and work in the aquarium. Debriefing and lunch.

Hydrolab Package:

\$19.000

\$16.750

Includes Hydrolab Training, 4 days, 3 nights at a four-star hotel in Moscow (single occupancy), security clearance, guided tour of Moscow and airport transfers.

Training Requirements

Participants must not be taller than 6'2" and shoulders, waist and pelvis measurements must not exceed 48 inches. Diver certification is preferred but not mandatory. Participants must supply a certificate of good health.

Combine Hydrolab, Zero-Gravity and Cosmonaut Training for an Incredible Space Adventure. Call for details.

1-800-644-7382

1-941-346-2603