## SPACEFLIGHT TRAINING

For the earnest candidate this course series is an excellent introduction to the adventure of spaceflight. It provides a quick test of the candidate's capabilities to insure the candidate is capable of spaceflight, without expending large amounts of time.

The series includes:

- -Three BST training courses;
  - 1. Scenario Based Physiological Altitude Training
  - 2. Spaceflight 101
  - 3. Flight Disorientation and G Force Management
- -Food and lodging (3 Nights, four days)
- -Uniform (Flight Suit and Polo Shirt)
- -Text books (Electronic format)
- -Transportation to and from events







Bryan Kuklinski MCFI holds a Commercial Pilot certificate with multiple ratings and has flown in a plethora of aircraft. He is an experienced Flight Instructor for single and multi-engine airplanes with instrument rating. He has taught at a toprated flight school working with

international pilots in an airline oriented training program. He was recognized as Instructor of the Month for his efforts and has been awarded the FAA Gold Seal for maintaining a pass rate of better than 80% over two years. In 2011 he earned a Master Flight Instructor rating and joined the Society of Aviation and Flight Educators (SAFE)



Dr. Paul Buza, D.O., F.A.C.N., A.M.E. is a board certified Neurologist specializing in advanced diving medicine and aerospace physiology. He co-engineered the current hypobaric chamber facility and has

developed clinical hyperbaric medical programs for the regional hospitals and trauma center. The facility is an approved triage site for NASA in the event of a catastrophe and he has conducted training and research with NASA. He is a professor at Wright State School of Aerospace Medicine and Florida Institute of Technology. In addition he conducts research in clinical medicine, diving medicine and aerospace physiology.

Jim Alsip MCFI-A is an active member of the International Aerobatic Club (IAC), a charter member of the Society of Aviation and Flight Educators (SAFE), and has been an active FAA Safety Team Representative with the Vero Beach, Florida chapter. Jim regularly conducts

seminars at Florida's Sun-n-Fun Fly-In and speaks at FAA's Lakeland Production Facility. He also appears weekly on www.gatvonline.com in the GATV segment



# INTRODUCTION TO Spaceflight Series

Initial Pilot, Crew and Participant training for spaceflight

Black Sky Training 23 Alafaya Woods Blvd Suite 232 Oviedo, Florida 32765 www.blacksky.aero 321-244-2550



#### SCENARIO BASED PHYSIOLOGICAL ALTITUDE TRAINING

Scenario Based Physiological Altitude Training teaches you how to recognize and counter a silent killer; hypoxia. The physiological effects of hypoxia, an inadequacy in the oxygen reaching the body's tissues, can be debilitating and fatal. During flight, a lack of oxygen or pressure can lead to a Hypoxic event causing crew and passengers to pass out resulting in a fatal crash.

The Black Sky Training course emphasizes the slow onset of hypoxia due to a failure of the cabin to properly pressurize. While rapid decompression is easily detected, the slow onset of hypoxia is much harder to recognize and is responsible for a number of fatal crashes in commercial aviation. The BST course trains you how to recognize the symptoms before it is too late and while corrective action can be taken.

Candidates are taught in an altitude chamber (hypobaric chamber) while operating a simulator under simulated flight conditions. Unlike other training schools, BST uses a hypobaric chamber so that you can experience all of the hypoxia symptoms (ear popping, bloating, etc.) and learn how to detect onset hypoxia quicker while there is time to correct the problem. During the "flight", candidates will do tasks simulating those they will do during an actual flight; pilots will fly the simulator while crew and passengers will operate a simulated on-board experiment.

The course provides the opportunity for the candidate to prove their capability to withstand the stresses of high altitude flight while performing simulated operational tasks per 14 CFR Part 460.5(b).

#### **SPACEFLIGHT 101**

Spaceflight is dangerous and can be lethal. Just like any other activity that pushes the physical boundaries and human endurance, spaceflight has certain risks and hazards associated with it. Spaceflight crew and passengers must understand the threats so that they may make an informed decision on the merits of flying into space.

The BST Spaceflight 101 course is designed to provide candidates with the necessary knowledge for an informed decision on the risks of launch and reentry per 14 CFR Part 460.9 (crew) and 14 CFR Part 460.45 (participant), and the applicable FAA regulations for human spaceflight.

Topics to be covered include:

- a. Basic terminology
- b. Operation and physics of rocket engines
- c. Human spaceflight law
- d. FAA regulations
- e. History of human spaceflight
- f. Physical dangers of spaceflight
- g. Past failures
- h. Basic RLV flight lesson

After successful completion of the course, the candidate will have a deeper understanding of the dangers involved in launch and reentry providing a basis for an informed decision on the candidate's participation in spaceflight.

### Introduction to Spaceflight Series Three Courses Four Days (Thurs - Sun) Initial spaceflight training Food and Lodging Included

For pricing and availability contact David Allen (559) 281-3163



#### FLIGHT DISORIENTATION AND G FORCE MANAGEMENT

Spaceflight subjects crew and passengers to stresses and attitudes not experienced during normal flight. During a normal spaceflight, passengers and crew will experience a near vertical climb followed by steep banking and forces up to four times the force of gravity during the return. Only people who have flown combat or acrobatic maneuvers have experience with these types of conditions. To have a safe and enjoyable spaceflight, crew and passengers must be familiar with the flight forces and be able to tolerate them without loss of function.

The BST Flight Disorientation and G Force Management course is designed to provide candidates with the experience of unusual attitudes in fixed wing flight. The course will test the candidate's ability to withstand the physical effects of disorientation and g force per 14 CFR Part 460.5(b) (Flight Crew) and demonstrate their mental and physical ability to execute training provided under 14 CFR Part 460.51 (Participant) while in flight. The course also seeks to increase their tolerance to those effects.

In an emergency, you will fly the way you trained.