

Brienna Henwood

Business Development & Marketing Manager



As Business Development & Marketing Manager at the NASTARSM Center, Brienna Henwood is devoted to transforming your dreams into reality.

Brienna has traveled the globe. As an accomplished SCUBA Master Diver and recent Student Pilot, her experiences and passion for excellence continue to help enhance programs at the NASTARSM Center. Whatever your goal is, Brienna is there to ensure your time at the NASTARSM Center is rewarding and exceptional.

Her responsibilities include helping to develop new programs for the NASTARSM Center. Such programs include the Sub-Orbital Space Flight Training and the Training Refresher Course, a one and two-day Space Experience Package, and the NASTARSM Center's Fast-Jet Dogfight Experience Course.

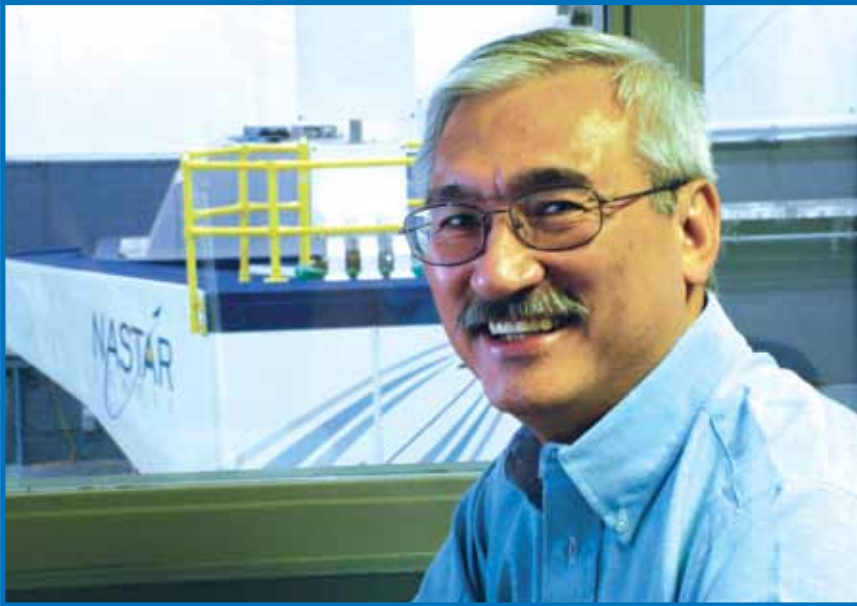
In addition to her duties, Brienna has earned her wings in the NASTARSM Center's STS-400 high-performance centrifuge, and is one of the inaugural Training Instructors for the NASTARSM Center's Sub-Orbital Space Flight Training Course.

Brienna has a degree in Biology. She also maintains current First Aid, CPR, and AED certification and is fluent in French. Her professional memberships include: DAN, PADI, and NAUI.



Glenn King

Chief Operating Officer



Meet Glenn King, the world's only Certified High Performance Human Centrifuge Test Pilot.

Mr. King fulfills several roles at the NASTARSM Center; primarily, as Chief Operating Officer, and Test Pilot. During Mr. King's 18 years with ETC/NASTAR, he has tested and flown centrifuges all around the world, and has accumulated over 2,000 hours in Flight Testing & Commissioning. Mr. King is an FAA-rated private pilot holding both single and multiengine instrument ratings with over 3,800 hours flying experience, and over 250 hours in fast jets. Mr. King is an active skydiving instructor and has accumulated over 12,000 jumps in his career.

His vision and determination will develop the NASTARSM Center into the world's premier space and civil aviation training facility. His leadership in the flight training industry has led to the development of ETC's FAA-approved flight training devices, and he continues to expand the NASTARSM Center's space training programs.



Richard (Dick) Leland

President



Dick Leland knows flying. As a former USAF pilot, he has logged over 3100 hours in high-performance jet aircraft and a variety of general aviation aircraft.

He also knows how flying affects the human body. He has literally written the book on spatial disorientation. With over 25 years of progressive experience, both in military service and in the corporate environment, as an aeromedical physiology specialist, course developer and instructor, training manager, and operations director, Dick Leland is the perfect choice to lead The NASTARSM Center's development of the world's premier aerospace training and research facility.

As part of his responsibilities heading The NASTARSM Center, Dick is in charge of the Aeromedical Training Institute (AMTI), a world-recognized developer of curricula for aerospace training. AMTI ensures that The NASTARSM Center remains at the forefront of the application of aeromedical and physiology research to aerospace training. AMTI has a distinguished roster of domestic and international aeromedical professionals who can deliver the most innovative training using The NASTARSM Center's facilities.

Dick has a wide range of qualifications and experience to guide The NASTARSM Center in developing an aerospace training and research center of excellence. He has served as an Aerospace Physiologist, a Cockpit Resource Management Instructor, a Life Support Officer, and Aircraft Mishap Investigator, a Course Director, a Director of Flight Support Operations and Training, a Staff Officer, and a USAF Pilot.



Alex Howerton

Business Development Manager
and Manager of Space Training



Alex Howerton launched his career at the NASTARSM Center in April 2006, with the overriding goal of making the NASTARSM Center the premiere aerospace training and research center in the world.

As Business Development Manager for Space Training, Alex is responsible for expanding the awareness and use of NASTARSM Center's capabilities in the space industry, both private and governmental. He accomplishes this through many activities, including contacting and maintaining relationships with current and potential clients, editing and distributing the monthly NASTARSM Newsletter, writing press releases, attending trade shows and conferences to spread the word about NASTARSM Center, and serving as a Mission Specialist for some of the training that occurs in the facility.

Prior to joining the NASTARSM Center, he held several positions, including a trainer of computer applications, and English professor, and a helpdesk support specialist. In the space field, Alex has been researching and writing about the commercial space industry for over 16 years. He published "Space Available: The Space Investors' Report" from 1992 to 1996, and has written two books on space development: "Free Space: Real Alternatives for Reaching Outer Space" (Loompanics, 1995), and "Project Avalon" (Space Available Press, 1998), a science fiction novel.

Alex is excited to use his in-depth knowledge of the commercial space industry to work with the NASTARSM Center team in building the NASTARSM Center into the first choice of government and private space businesses in their need for aerospace training and research services.



The NASTARSM Center



**The NASTARSM Center serves five primary markets:
Tactical Aviation, Space Launch, Research Support,
Civil Aviation and Serious Entertainment**

The NASTARSM Center, or National Aerospace Training and Research Center, is committed to pushing the envelope in training and research services for Tactical Flight, Civil Aviation, and Space Industries. Using the latest advances in motion and simulation technologies, the NASTARSM Center enables companies and organizations to cost-effectively get the most out of their aerospace technology investments.



The NASTARSM Center serves five primary markets:

Tactical Aviation

Tactical pilots can fly the ATFS-400, or Authentic Tactical Fighting System, a centrifuge-based flight simulator, to practice flying skills, hone their combat edge, and take themselves and their aircraft to the edge of the flight envelope and beyond, discovering the boundaries of the aircraft's performance limits, and their own. There is no more authentic piloting experience, short of flying the actual craft.

Space Launch

The era of private human space launches has arrived. However, launching into space is not the same as riding on a commercial jet. Private space travelers will experience the same physiological effects as professional astronauts. The NASTARSM Center readies private space travelers for their flights into space by conditioning them to the rigors of space flight, which gives them the confidence that they can handle the stresses of space launch, so they are prepared, and can enjoy their unique space experience. The NASTARSM Center also stands ready to work with Launch Providers in developing their human space launch capabilities.

Research Support

The NASTARSM Center is a comprehensive facility, ready to support a wide array of research into Aeromedical, Human Factors, and Ergonomic issues. Capabilities include high sustained Gs on our high-performance centrifuge, high altitude exposure in our hypobaric chamber, and spatial disorientation, situational awareness, and upset recovery research in our short-arm centrifuge. The NASTARSM Center has many other capabilities including an established IRB, and human test subjects, to meet a wide variety of research needs.

Civil Aviation

The NASTARSM Center has many programs to improve your piloting ability. If you're a VFR pilot with only a few hours, or a seasoned IFR Pilot, our programs will teach you to recognize the symptoms of impending problems and give you the skills to always maintain control of your aircraft. Training programs in spatial disorientation, situational awareness, and upset recovery programs will provide the skill sets you'll need to survive beyond your check ride.

Serious Entertainment

Whether you want to find out what launching into space is like, or you want to go up against a MiG 29 in an F-15, the NASTARSM Center has a wide variety of "serious entertainment" experiences to challenge your air combat skills. The NASTARSM Center puts you in a high-fidelity cockpit, and sends you skyward into engagements against skilled pilots. Your co-pilot is there to assist you during your engagement, and coach you through the high G turns and maneuvers. If you want to fly higher and faster than a jet pilot, our Space Launch experience will launch you into a suborbital flight, with all the G forces of an actual launch.



The NASTARSM Center houses the following equipment:

ATFS-400 / STS-400

The ATFS-400 is the Authentic Tactical Fighting System, the most advanced motion-based flight simulator in existence. The ATFS-400 is a 25-foot arm, high-onset centrifuge with a multi-axis powered gondola at the end. This allows for dynamically controlling the orientation of the gondola, which enables the ATFS-400 to model the flight profile of practically any flying vehicle in existence. This capability, combined with authentic modeling of the cockpit of a high-performance jet and immersive real world visual displays, delivers the most authentic flying experience short of actually flying the aircraft. In the system's application as the STS-400, or Space Training Simulator, trainees can authentically experience the thrill of space launch and reentry.

GYROLAB

The GYROLAB is a full-motion flight simulator that can reproduce situational awareness and spatial disorientation conditions for both fixed and rotary wing aircraft. Motion along four axes is also used to authentically replicate upset recovery and motion sickness desensitization exercises. The GYROLAB is a useful tool in pushing the envelope of flight conditions, demonstrating to users what types of trouble they can get into, how to get out of it, and how not to get into such trouble in the first place.

Altitude Chamber

The Altitude Chamber is a hypobaric vessel which can simulate atmospheric conditions up to 100,000 feet. The altitude chamber is useful for demonstrating hypoxia and rapid decompression, and users can practice procedures to mitigate such conditions. Altitude chamber experiences give trainees the confidence to calmly handle stressful situations related to operating aircraft at high altitudes.

Ejection Seat System

The Ejection Seat System is designed to assist trainees in practicing the decision matrix involved in the ultimate decision to eject from an aircraft. Working in an authentic model of a high-performance jet, trainees run through the pre-ejection checklist, practice proper body positioning, then reach the "moment of truth" when they pull the handle for a swift ejection ride up the rails of the system. Practicing these procedures give pilots the confidence to eject within the proper flight envelope.

Night Vision Training and Night Vision Goggle Training

The conditions of flying at night are vastly different from those of daytime operations. Night Vision Training enables pilots to understand the differences in stimuli to their eyes, and how to cope with the anomalies that darkness brings on. Night Vision Goggle Training goes a step further, to accustom trainees to the non-intuitive signals coming through a pair of night vision goggles. Trainees who take this course are prepared to assess and understand the differences inherent in flying at night.

Authentic Disaster Management System

The Authentic Disaster Management System, or ADMS, allows trainees to practice interservice communication and cooperation protocols in emergency situations. The real-time interactive system allows rescue professionals to practice procedures in an intense but not dangerous setting. The physics-based system responds to the commands and decision that each participant makes, causing the consequences of those decisions to play out, including the "death" of the virtual casualties in the scenario. This allows the professionals involved to implement and evaluate best practices, before they are called on in a real life-and-death situation.



Background:

NASTARSM Center is a fully equipped military, civilian, research and space training facility located in Southampton, PA. This center holds the world's most advanced high performance human centrifuge, STS-400 (Space Training Simulator) and ATFS-400 (Authentic Tactical Flight Simulator), which is used in combination with state-of-the-art visuals and ambient surround sound for your Space Flight or Fast Jet Air Combat Flight programs listed below. The NASTARSM Center's human centrifuge provides the real world G-Forces required to deliver the ultimate experience, with you sitting in the cockpit.

NASTARSM Center offers the following experiences:

I. Basics of Flight

Ever dream of flying an aircraft? This experience presents the basics of flight and includes flights in NASTARSM Center's GYROFLIGHT Simulator. The GYROFLIGHT is a full motion simulator with real world visuals and a wide field of view out the window display. It provides the pilot motion cuing in pitch, roll, yaw and heave, making the flight a highly realistic experience. In the GYROFLIGHT guests can learn the flying skills that prepare them to experience NASTARSM Center's Jet Air Combat Experience.

II. Jet Air Combat Experience

"Viper 1, you've got a bandit at your 6 o'clock...break right." In the most realistic air combat environment, your objective is clear: protect your base by using any means necessary, including deadly force. Your mission will include a close air support mission where you will be tasked to locate and destroy an enemy mobile mortar crew that is attacking your base and then to complete air interdiction mission to track down and destroy 3 bandits that have launched from an enemy base. You will experience the rush of a lifetime as you pull high G maneuvers to dodge the enemy squadron.

As a "pilot in training", you will learn fighter combat maneuvers, undergo weapons training, and complete your combat mission in the ATFS-400 (Authentic Tactical Fighting System). Once "fraggged" for a mission by your commander, you will be sent to test your skills against the targeted enemies in the air and on the ground to engage in a full-on air combat experience.

Flight Course Includes:

- Intro
- Tour of the Facility
- Suit up
- Course
 - Aircraft Familiarization
 - Air Combat Maneuvering
 - Weapons Training
- GYROLAB Motion Training Simulator (Warm up mission)
- ATFS-400 (Simulated Combat Mission)
- Awards Ceremony
- Memento Take Away's: Flight suit, Wings, DVD, Certificate



Space Flight Experience

Are you ready for Space?

"All systems GO for Launch."

Countdown commencing now: 5...4...3...2...1"

NASTARSM Center's 1-Day Space Flight Experience takes you on an unforgettable sub-orbital space journey that is really out of this world! Discover what it is like to go through the same kind of training that astronauts undergo, and experience the launch of the rocket as it flies towards the stars, mystical weightlessness period in outer space, and gravitational G-Forces pulling you back towards earth in your reentry phase, as you embark on your very own Space Flight!

Providing you with a taste for what a space flight would feel like, we take you up to 3 G's (that's about 3 times your body mass!) on your adventure to space...You will learn techniques used by astronauts to maximize your experience in space and about the forces that apply to your body while in flight. Your NASTARSM Center Mission Specialist will instruct you on what G forces are, how they affect you and how to deal with them. Then you will fly a G adaptation flight in the STS-400. Once you have successfully completed your G adaptation flight, it's time for the actual suborbital flight where you will experience takeoff from the ground, acceleration to a height of 360,000 feet during the launch phase, simulated weightlessness, and return to earth during the reentry phase.

Space Course Includes:

- Intro
- Tour of the Facility
- Suit up
- Space Flight Course and Brief
- 2 flights on the STS-400 (Space Training Simulator)
- Awards Ceremony
- Memento Take Away's: Flight suit, T-shirt, DVD, Certificate.

2-Day Space Flight Experience

Want to really shoot for the stars? Join us in experiencing the greatest experience of your life as we blast you off into outer space! This two-day program is designed with the serious space nuts in mind that want to "earn their wings" and receive full exposure (up to 4 G's!) to actual G-force levels of rocket launch, weightlessness and reentry.

During the course, you will learn about the different forces that apply when in space and get to experience those in flight by using the STS-400 (Space Training Simulator). You will also learn about unique techniques and maneuvers used to combat these forces such as the AGSM, and what to do in a G-LOC (G-Induced Loss of Consciousness) episode.

You will perform multiple flights to equip you for the "Big Ride" where we blast you off planet Earth into space. By the end you will be confident with your ability and techniques to handle space flight and be knowledgeable to talk amongst your fellow "teranauts" and astronauts alike!

2-Day Space Course Includes:

- Intro
- Tour of the Facility
- Suit up
- Space Flight Course and Brief (both days)
- 6 flights on the STS-400 (Space Training Simulator)
- Awards Ceremony
- Memento Take Away's:
Flightsuit, DVD, Wings and Certificate (upon successful completion of the course).



Refresher Space Flight Training Course

Welcome Back Astronaut! This refresher course is specifically designed for those who wish to complete the NASTARSM Center Space Flight Training Course, or for those who wish to “refresh” their skills to keep up with your space training preparation.

This course will be customizable to you and your previous achievements. You will fly 4 Space profiles on the STS-400 (Space Training Simulator) with the overall goal to increase confidence with your Space Flight ability so that you may thoroughly enjoy the precious moments on your actual Space Flight.

Refresher Space Course Includes:

- Intro
- Re-acquaintance Tour of the Facility
- Suit up
- Space Flight Refresher Course and Brief
- 4 flights on the STS-400 (Space Training Simulator)
- Awards Ceremony
- Memento Take Away's:
Flightsuit, DVD, Wings and Certificate (upon successful completion of the course).

1st Day Jet Air Combat PLUS 2nd Day Space Flight Experience

If you can't choose just one, why not choose both! Enjoy this all-encompassing program that provides a fun filled first day in the sky performing Jet air combat experience, and then go beyond the sky into space on your second day with the Space Flight experience!

This combo course combines Jet Air Combat Experience and the Space Experience. Please see their respective descriptions for further info.

Scott Glaser

Director of Flight Dynamics Research



Scott's involvement with aviation started with his first airplane ride when he was six weeks old and has since grown into a passion for everything aerospace. His appreciation and pursuit has led Scott into developing his skills in some of the top institutions and programs in the World.

After gaining both Bachelors and Masters Degrees in Aerospace Engineering, Scott has been involved in a breadth of programs from fighters, to UAVS, to parachutes and even submarines. His work on to flight testing on the F-22 Raptor led to several awards including the Air Force Award for Civilian Achievement. Scott was also a member of the 2006 F-22 Flight Test team included as a contributor for the 2006 Collier Trophy. He then went on to conducting aerodynamic design and development for the World famous Lockheed Martin Skunk Works. Scott is also a trained aerobatic and warbird pilot with time in both U.S. and Eastern Bloc aircraft.

Scott's has come to add his unique experience in flight dynamics to NASTARSM Center's already first rate products. His responsibilities include establishment of a flight test program to validate our devices to level of fidelity necessary to the flight test development world. Scott is also been given charge of NASTARSM Center's Upset Recovery Training programs in order to bring a new level of safety and authenticity to ground based training for commercial and civilian pilots. Scott's background and abilities bring a new level of diversity to NASTARSM Center's aerospace family.

WELCOME ABOARD SCOTT!



ETC Corporate

Serving Many Markets Since 1969



Founded in 1969 by William F. Mitchell, President and CEO of ETC. Environmental Tectonics Corporation (ETC) began in the ambitions of a young man, caddying part-time for golfers at a prominent suburban country club near the city of Philadelphia, Pennsylvania.

It was then that William Mitchell, now ETC's President and CEO, first made the acquaintance of the Al Richman, a prominent advertising executive in Philadelphia who would become his friend and mentor. Richman and his wife encouraged the young physicist to explore books and new fields of study as he completed his education at Drexel University. Richman spent many evenings introducing his young friend to the people who would eventually support Mitchell's start up business. In 1969, at the age of twenty-six, Mitchell had gathered enough backing to lay the foundation for what would become ETC.

In 1971, one of the first products produced by ETC was a high-altitude, rapid decompression chamber for the United States Navy. This first chamber's unique design and control system would eventually provide the base technology for the development and evolution of many of ETC's other distinct products.

Similar chamber technology crossed elegantly into the design and manufacture of various chamber-based

products that comprise the lines of what are today the BioMedical Systems, Sterilization Systems and Testing & Simulation Systems business units.

For yet another business unit, the original altitude chamber sale uncovered a need for additional training products for pilots and other aircrew. Out of this demand, ETC's Aircrew Training Systems and AeroMedical Training Institute and their associated product lines were formed to answer the call. Today, one of ETC's most successful product lines still answers the need with the most technologically advanced Aircrew Training Systems available anywhere.

Other business units, such as ETC's Information Systems, have fueled corporate-wide product improvements through better understanding, implementation and integration of cutting-edge software and control technology. EnTCo's The Ride Works, ETC's premier ride development facility, became another innovative addition. The focus of this development has been the transference of ETC's motion and simulation technology to the entertainment industry for use in high profile motion-based ride attractions.

ETC's latest venture is tackling the commercial space market. In 2007, The NASTARsm (National AeroSpace Training And Research) Center opened its doors to the public. The NASTARsm Center is a world class facility that provides training and research support for the aerospace industry. The NASTARsm Center serves 5 primary markets: Tactical Aviation, Space Flight, Research Support, Civil Aviation, and Serious Entertainment. Using the latest advances in motion and simulation technologies, the NASTARsm Center is committed to pushing the envelope to enable companies, organizations, and individuals to cost effectively get the most out of their aerospace technology investments.

Paul Comtois

Aircraft Upset Recovery Training and Research



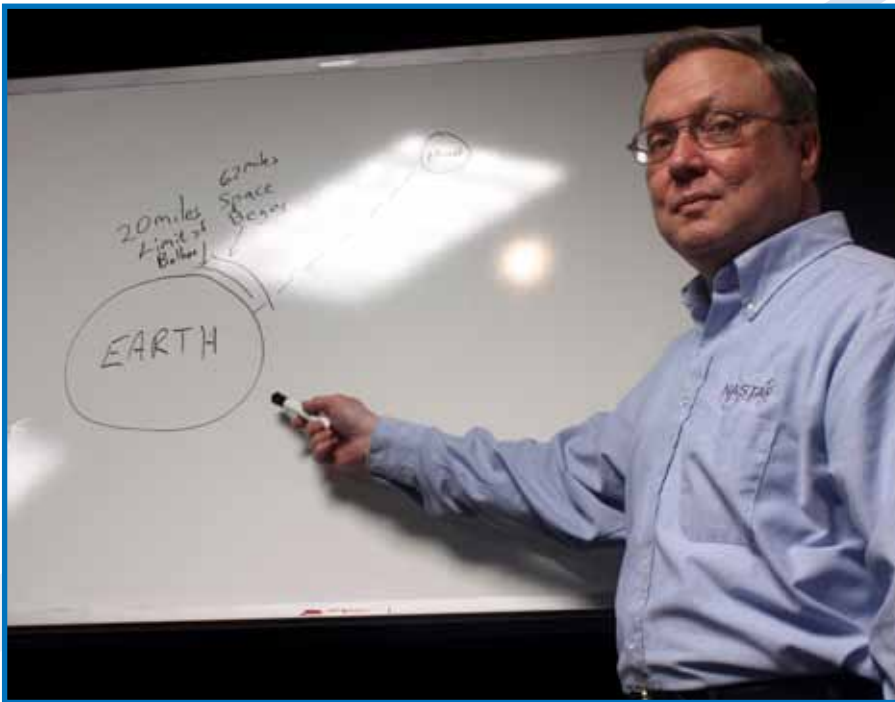
Paul is a retired Air Force Colonel who compiled nearly 3,000 hours in the F-16, A-10, KC-135, T-38 and T-37 aircraft.

Paul was last assigned as Wing Commander for the 111th Fighter Wing, Pennsylvania Air National Guard. On top of his flying experience, Paul is a trained safety professional and accident investigator having completed both Air Force and Navy safety schools. He has investigated numerous accidents to include several in a combat environment. He is a 1986 graduate of Embry-Riddle Aeronautical University in Daytona Beach, Florida, and a 2004 graduate of the United States Army War College in Carlisle, Pennsylvania.



Gregory P. Kennedy

Director of Education Programs



Gregory P. Kennedy heads NASTAR University's public outreach efforts to promote science, technology, engineering and mathematics (STEM) education.

Mr. Kennedy has created or contributed to aerospace education programs at museums around the country and has been a merit badge counselor for the Boy Scouts of America for the Space Exploration badge. He is a former Associate Curator for Manned Space Flight at the National Air and Space Museum. At the National Air and Space Museum, he was curator for the Smithsonian's exhibits on aerospace medicine, Project Apollo and rocketry. Mr. Kennedy was also Executive Director of the Space Center (now known as the New Mexico Museum of Space History) in Alamogordo, New Mexico, from 1985 - 1990. During his tenure at the Space Center, he served on the Education Committee of the International Astronautical Federation.

Mr. Kennedy has authored, co-authored or edited eight books (with a ninth in progress) and dozens of articles on space history. His particular areas of interest include World War II rocket programs, manned stratospheric balloon projects and the early years of the space program in America. In 2007, he was invited to present an historical overview on piloted high altitude balloon projects to a NASA Manned Ballooning Workshop in Washington, D. C.

