

# MILITARY PILOT TRAINING PROGRAMS

## **Military Pilots**

- Aviation Health and Wellness
- Military Aviation Physiology Training
- Egress and Ejection Training
- High G Training
- Situational Awareness Training
- Spatial Disorientation
- Upset Prevention and Recovery Training
- Hypobaric (High-Altitude) Training
- Vision & Night Vision Training
- Land and Water Survival Training

# AVIATION HEALTH & WELLNESS

## Aim

These academics only courses are designed to provide aviators with knowledge on fitness, safety, and operational and personal health in flight and pre/post flight. Courses may be combined or taken separate.

## Courses

**Cardiology in Aviation (0.5 Day Program)** – This branch of occupational medicine encompasses all aspects of the man/machine interface in the aviation environment and specifically relates to aircrew fitness. It applies not only to flight crew, their fitness, certification and operational environment, but also to passengers, and for the safe carriage of those who are unwell.

**Fatigue Management (0.5 Day Program)** – Familiarizes Aircrew with the risk impacts of fatigue which reduce aircrews' ability to perform their duties accurately, effectively and safely. This course demonstrates techniques to recognize fatigue before it results in an accident.

**Stress and Stress Management (0.5 Day Program)** – This course discusses the effects of various stressors on human performance with emphasis on Man-Machine interface, Age, Physical Condition, Psychological Stresses, Stress v Performance, Personality Types.

**Wellness Academics Course (0.5 Day Program)** – The Wellness Training Course provides instructors the background information to conduct Wellness & General Health training for aircrew, space crew and space travelers. This course provides suggested wellness and health programs to participants which support the academic portion of High G training for tactical or commercial human space flights.

## Equipment

None.

## Prerequisites

None.

## Certification

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and a NASTAR course card

## Registration

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# MILITARY AVIATION PHYSIOLOGY

## Aim

This comprehensive course is designed to provide military aircrew (aircraft & helicopter), parachutists, and physiologists with knowledge and skills needed to understand human physiology in flight.

## Content

One day of each:

- Altitude Physiology Training
  - Hypoxia demonstration flights (Altitude Chamber)
- Spatial Disorientation Training
  - Spatial Disorientation flights (Gyrolab GL-1500)
- Night Vision Training
  - Unaided night vision demonstrations (Night Vision System)

## Duration

3 Days

## Equipment

Altitude Chamber  
GYROLab (GL) 1500  
Night Vision System

## Prerequisites

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## Certification

*Satisfies the requirements of AF I 11- 403 Aerospace Physiology Training Program, AF I 11- 410 Personnel Parachute Operations, and NATO STANAG 3114 Aeromedical Training of Flight Personnel.*

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and a NASTAR course card

## Registration

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# EGRESS & EJECTION TRAINING

## **Aim**

This program is designed to provide pilots with the knowledge and skills to safely perform both air and ground egress using both academic instruction and hands-on ejection seat training.

## **Content**

- decision process to eject
- pre-ejection procedures
- ejection procedures
- post-ejection

## **Duration**

1 Day

## **Equipment**

Ejection Seat Trainer

## **Prerequisites**

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## **Certification**

*Satisfies the requirements of AF I 11- 403.*

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and a NASTAR course card

## **Registration**

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# HIGH G TRAINING

## Aim

This program is designed to provide pilots with the knowledge and skills to safely endure, operate under, and execute tasks in a high G environment.

## Content

- Physiology of high G training
- Acceleration Physics
- Acceleration Physiology
- G-Induced Loss of Consciousness (GLOC)
- Anti-G Straining Maneuver (AGSM)
- Stress in Flight
- Physical Conditioning
- Health and Wellness
- High G simulation flights in Phoenix Centrifuge

## Duration

2 Days

## Equipment

Phoenix Centrifuge

## Prerequisites

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## Certification

*Satisfies the requirements of AF I 11- 404.*

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and a NASTAR course card

## Registration

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# SITUATIONAL AWARENESS

## **Aim**

This program is designed to provide Pilots with the knowledge and skills to maintain a continuous perception of self and aircraft in relation to environment during flight.

## **Content**

- Situational Awareness Situations
- Conscious and Preconscious Information Processing
- Mitigating Situational Awareness
- Introduction to Crew Resource Management
- Anomalies of Attention
- Forecasting and Executing Perception-Based Tasks
- Simulated Flights in Gyroflight

## **Duration**

1 Day

## **Equipment**

Gyroflight Trainer

## **Prerequisites**

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## **Certification**

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and a NASTAR course card

## **Registration**

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# SPATIAL DISORIENTATION

## **Aim**

This program is designed to provide pilots with the knowledge and skills to handle visual and vestibular illusions that may be encountered in flight.

## **Content**

- Motion Environment & Orientation
- Vision & Spatial Disorientation
- Orientation, Perception & Illusions
- Spatial Disorientation Management
- Conscious & Preconscious Information Processing
- Spatial Disorientation Training Flights
- Simulated Flights in GYROlab or Gyroflight

## **Duration**

1 Day

## **Equipment**

GYROLab (GL) 1500 or Gyroflight Trainer

## **Prerequisites**

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## **Certification**

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and a NASTAR course card

## **Registration**

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# UPSET RECOVERY & PREVENTION

## Aim

This program is designed to provide Pilots with the knowledge and skills necessary to identify and recover from upset scenarios. The course features hands-on exposure to different Loss of Control In-flight (LOC-I) situations using unique simulation technology.

## Content

- Types and Classes of Aircraft Upsets
- Loss of Consciousness In-Flight Causes and Effects
- Upset Detection and Recognition
- Flight Characteristics Familiarization and Lift Vector Control
- Basic Recoveries to Common/Past Upsets
- Health & Wellness
- Simulated Flights in GL-1500 and/or Phoenix Centrifuge
  - GL-2000 Familiarization Flight
  - Lift Vector Control Exercises
  - Extreme Maneuvering Exercises
  - Upset Demonstration and Performance Exercises
  - Proficiency Assessment Session

## Duration

1 Day

## Equipment

GyroLab (GL) 1500  
Phoenix Centrifuge

## Prerequisites

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## Certification

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and a NASTAR course card

## Registration

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)



# HYPOBARIC (HIGH ALTITUDE)

## **Aim**

This program is designed for anyone interested in understanding how to identify symptoms of hypoxia and properly handle low-oxygen and rapid decompression situations safely and effectively.

## **Content**

- Aerospace Environment
- Physiological Effects of Pressure Change
- Altitude Physiology (Respiration and Circulation)
- Hypoxia and Hyperventilation & Management
- Oxygen & Life Support Systems
- Time of Useful Consciousness
- Health & Wellness
- Pressure Equalization
- Altitude Chamber Flight
- Rapid Decompression

## **Duration**

1 Day

## **Equipment**

Altitude Chamber

## **Prerequisites**

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## **Certification**

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and NASTAR course card

## **Registration**

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# VISION & NIGHT VISION

## **Aim**

This program is designed to provide pilots with the knowledge and skills to function under low to no light conditions for night operations. Night vision goggle training can be accommodated with prior notice.

## **Content**

- Eye Anatomy
- Object Recognition
- Distance and Depth Perception
- Photopic, Scotopic and Mesopic Vision
- Purkinje Shift
- Visual Illusions
- Day and Night Scanning Techniques
- Dark Adaptation
- Operational Considerations and Environmental Issues
- Virtual and Terrain Model Board Exercises

## **Duration**

1 Day

## **Equipment**

Night Vision System

Terrain Model Board

*(NOTE: Night Vision Goggles are not provided as part of this course)*

## **Prerequisites**

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## **Certification**

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and NASTAR course card

## **Registration**

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)

# LAND & WATER SURVIVAL

## Aim

This program is designed with Survival Systems, USA, to provide pilots, crew, and passengers with the knowledge and skills needed to survive unanticipated land or water landings and/or other episodes where rescue may be required.

## Content

- On-Board Hazards and Emergencies
- Fire Fighting in the Cabin/Cockpit
- Evacuation and Escape
- Vehicle Ditching Scenarios & Techniques
- Search and Rescue
- Safety and Survival Equipment Utilization and Deployment
- Effects of Hypothermia and Hyperthermia, Mitigation and Survival
- Survival Psychology
- Personal Rescue Techniques (signaling, flotation devices, etc)
- Fire and Shelter Wilderness Survival Techniques
- First Aid/Medical Scenarios
- Dry/Wet Evacuation Training Through an Emergency Exit on Water

## Duration

2 Days

## Equipment

Water Survival Simulator System

## Prerequisites

- FAA Class 3 Medical Certificate or equivalent
- Trainees are expected to be in a good state of health and physically capable of taking part in all course activities

## Certification

All persons who successfully complete the program based on performance standards will receive a NASTAR Center certificate of completion and NASTAR course card

## Registration

NASTAR Training Center located at 125 James Way in Southampton, PA. 18966, USA.

Partnership with Survival Systems, USA may require off-site training. To schedule, please contact us at 866.482.0933 or email us at [info@nastarcenter.com](mailto:info@nastarcenter.com)