

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.



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