



Evaluation of Synthetic Training Devices Course

The Nova Systems Evaluation of Synthetic Training Devices (EoSTD) course provides the fundamental skills and knowledge of regulations, simulation principles and techniques, and evaluation methodologies involved in the assessment of Synthetic Training Devices (STDs)

Outline of Course

The EoSTD Course aims to provide training of the evaluation procedures, techniques and methodologies used for assessment of Flight Simulators and other Flight Training Devices (FTDs). The course uses lectures as enabling knowledge, accompanied by on-board practical activities across a number of STDs to reinforce the theoretical concepts. The course has been recognised by CASA (Civil Aviation Safety Authority) as satisfying a key training requirement of Evaluation Team Leaders acting on behalf of CASA. Students completing the course are qualified and prepared to act as Simulator Evaluation team members for Initial Evaluations and Recurrent Fidelity Checks, having gained an understanding of: Regulations, standards and processes applicable to STDs, Technologies used in STDs, and STD evaluation tests and procedures.

Target Audience

The EoSTD target audience is Civil and Defence aviation industry personnel involved in all facets of Simulator evaluation. Prospective students are expected to include managers and their staff from Operations, Capability, Acquisition, Engineering, and Logistics organisations, as well as any other technical practitioners seeking to broaden their exposure to Synthetic Training Devices.

Course Training Outline

The EoSTD Course is comprised of the following modules.

Module 1 - Introduction to Synthetic Training Devices used in Aviation Applications

- Flight Deck Replica
- Vision Systems
- Image Generation
- Sound and Special Effects
- Motion Systems
- Control Loading Systems
- Flight Dynamics Modelling including Aerodynamics and Non-Linear Modelling
- Proof of Match Testing
- Mission Systems and Alternate Mission Tasks
- Simulated Malfunctions
- Latency and Fidelity

Module 2 - Synthetic Training Devices Regulation and Application

- General Introduction to Regulations
- ADF Military Regulations
- CASA Flight Simulator Regulations - MOS 60
- CASA Flight Training Devices and Synthetic Trainer Regulations
- Obtaining and Assessing Validation Data
- Qualification Test Guide
- Conduct of On-site Evaluations
 - Initial Evaluations
 - Special Evaluations
 - Recurrent Evaluations

Course Conduct

- The EoSTD Course duration is 6 days from Monday to Saturday. An optional day trip to a Defence simulator may be taken on the following Monday.
- The course is conducted at a commercial flight training centre and includes morning, afternoon tea and lunch.
- The course material is delivered by Nova's highly qualified and experienced instructors.
- Extensive course notes as well as copies of current simulator Standards and Regulations will be provided to students.
- Completion Certificates are awarded to students who complete at least 90% of the course material and who demonstrate appropriate competence during practical exercises and a written examination.

Module 3 - Practical Simulator Assessment

- Creating Test Guides (classroom)
- Assessing Validation Test Data (classroom)
- Flight Deck Assessment (simulator)
- Conduct of Validation Testing (simulator)
- Vision Systems Testing (classroom/simulator)
- Application of On Board Assessment Techniques (simulator)

Practical techniques are taught both in the classroom and on board modern simulators. The simulators incorporate a range of legacy and state-of-the-art systems, that are representative of training systems in current use world wide.

Approximately 8 hours of dedicated STD time is included in the basic course.

Course Details

