



Dedicated to innovation in aerospace

AEROSPACE OPERATIONS DIVISION

AIR TRAFFIC MANAGEMENT AND AIRPORTS

NARSIM ATC 360° Tower Simulator

PRODUCTS & SERVICES



The real-time Tower and Apron Control Simulator
for ATM research and training

Are you looking for a real-time human-in-the-loop Tower Simulator that can both be used for research and training purposes and which is fully scalable, configurable and which can be coupled to third party systems?



WHAT YOU NEED

- One cost efficient simulator for all your research and training needs
- Reduced lead times for requested changes in simulation exercises
- Ability to simulate new airport operational concepts and procedures such as A-SMGCS, EFS, CDM and the human factor in the control tower
- CWP displays that can emulate any commercially available in-hardware system like stopbar and lighting panels, R/T and communication panels
- Adherence to industrial interoperability standards

WHAT WE DELIVER

- Ability to simulate future airport operations and controller working positions
- Fully customisable displays
- Ability to integrate third party systems whilst maintaining scalability and performance
- Developed fully in-house with a focus on modularity and configuration
- Ability to integrate Tower simulator with Radar simulator
- From large scale validation trials to small scale (even laptop based) prototyping and visualisation
- High fidelity
- Based on COTS hardware

OUR CAPABILITIES

The in-house developed NARSIM Tower simulator makes use of highly realistic aircraft performance models, validated by numerous ANSPs. NARSIM Tower has a proven track record and has been used as validation platform in European ATM research (SESAR).

CONCEPT DEVELOPMENT AND VISUALISATION

The Linux based NARSIM Tower enables visualisation of new conceptual ideas in a very early stage. Ideas can be quickly evaluated towards operational feasibility and they can be communicated to users and stakeholders in a clear and unambiguous way. Early involvement of the user is generally accepted as the single most important factor for a successful introduction of new or changed ATC system or concept.

TRAINING NARSIM

Tower simulates a realistic environment for the Tower and Apron Controller and is used in the development of training as well as in providing of training itself. Training in NARSIM Tower has been provided ranging from basic Introduction to Tower Control to replacing

the tower controller's on-the-job-training and even large scale (50+ actors involved) recurrency training. Record and play-back is just one of the training features of NARSIM Tower.

HMI DEVELOPMENT NARSIM

Tower is highly configurable and well suited for applications where the human aspect plays an essential role, such as development of the Human Machine Interface (HMI). Rapid prototyping allows for fast experimental or pre-operational evaluation of new HMI specifications.

VISUAL SYSTEM

The visual system of the NARSIM Tower facility consists of a 360° projection screen with a diameter of 11 meters and a height of 4.5m. The projection system has a high resolution, luminance and contrast ratio. A variety of meteorological phenomena such as rain, snow, fog and clouds can be simulated in different seasons and under daylight and night-time conditions. Detailed databases of many European airports are available and can be imported or even created in-house.

Pricing upon request and depending on the configuration of NARSIM Tower.



PRODUCTS & FEATURES

- rapid and flexible scenario generation
- more efficient training exercises
- more efficient simulation exercises
- more efficient validation of new concepts and procedures
- standard H/W interfaces (OLDI, Asterix, CPDLC, etc.)
- industrial interoperability standards (DIS, HLA)
- significant cost savings