

CAE Tropos™ -6000 Series

CAE Tropos™-6000 is the latest evolution of leading visual solutions from CAE for the civil market. CAE Tropos-6000 combines the proven image quality and true fidelity of CAE Tropos™ with the latest commercial-off-the-shelf (COTS) technologies.

CAE Tropos-6000 image generators enhance the realism of pilot training through extensive use of satellite imagery, dynamic airport environments, advanced weather effects and a world database.

The new platform is fully compatible with previous CAE Tropos image generators, thus existing database investments are protected.

CAE Tropos-6000 includes special rendering features optimized to take full advantage of liquid crystal on silicon (LCoS) projectors to deliver unprecedented visual realism exceeding the requirements of Level D qualification.



CAE Tropos-6000 features

- Federal Aviation Administration (FAA) and Joint Aviation Authorities (JAA) Level D compliant visual system designed for LCoS projectors.
- Ultra-high resolution for improved speed and height cueing.
- Entirely built using COTS hardware.
- Graphic subsystem built around high standard COTS graphic card technology.
- Available in configurations ranging from 180° x 40° to 210° x 40°.
- Industry leading 3D feature density.
- Rich and proven feature set developed from 20 years of experience in high-end visualization.
- The Tropos-6000 series is also capable of driving projectors with higher pixel counts (e.g. QXGA with 3.2 mega-pixels) in the Tropos™-6400 configuration.



Specifications

Graphic performance – CAE Tropos™-6200

Visual simulation polygons per channel:	75,000 at 60Hz
Pixels / channel:	2.1 million pixels rendered/ projected

Graphic performance – CAE Tropos™-6400

Visual simulation polygons per channel:	75,000 at 60Hz
Pixels / channel:	Up to 4 million pixels rendered/ projected

World database

Features:

- Imagery-based 3D world database.
- Seamless integration of auto-configurable generic database into the 3D world.
- Digital terrain elevation data (DTED) level 1 (100m) world database elevation data. (Compatible with enhanced ground proximity warning systems (EGPWS)).

Environment simulation

Features:

- Physics-based sky simulation.
- Layered fog.
- 3D puffy clouds.
- Falling snow, rain or hail.
- Library of 22 storm fronts.
- Blowing effects: snow, sand or dust.
- More than 75 airport scenes maintained up-to-date.
- More than 180 airport scenes maintained up-to-date.

Airport simulation

Features:

- Enhanced docking aids.
- Compliant with CAT IIIB airport operational procedures, including surface moving guidance system (SMGS) and advanced taxi guidance system (ATGS) guiding systems.
- Fully compatible with existing CAE Tropos airport scenes.
- Highly detailed 3D content.
- Imagery coverage around the airport scenes:
 - Very high resolution (1m) up to 6km.
 - High-resolution (5m) up to 15km.
 - Medium resolution (15m) for the rest of the Geo-Unit (1 Geo-Unit = 1°x1° = approx 100km x 100km).

Other benefits

- Reliability and performance typical of COTS components.
- Fast reposition time (less than 30 seconds).
- Compatibility to run on other COTS PC platforms for brief/debrief applications.

Optional features contingent upon simulator host software

- Runway auto-alignment.
- Runway closure.
- Correlated motion bumps with centerline lights.

Optional configurations

- Enhanced vision system (EVS) and forward looking infrared (FLIR) simulation.
- Boeing ground movement camera system (GMCS).
- Airbus taxi aid camera system / enhanced taxi aid camera system (TACS / ETACS).



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