Using the latest in technology and based upon the experience gained from delivering over 320 military flight simulators, the Thales Flight Tactical Combat Simulator (FTCS) has been designed for Air Force use in an era of net-centric capabilities.

The purpose of the FTCS includes:

- Pilot training in air-to-air and air-to-ground combat procedures
- Evolution and assessment of tactics against a variety of targets
- Training in tactical cooperation with friendly airborne forces
- Management of net-centric capabilities including data fusion
- Evaluation of changes in platform capability to mission effectiveness, for example through changes in weapons or sensors.
CHARACTERISTICS

Through the use of advanced modelling techniques, the pilot is offered Own-ship Platforms that can be generic within a class of aircraft. This model has no reliance upon aircraft avionic black-boxes or aircraft software. Security classification issues are therefore avoided. Alternatively the FTCS simulation can be provided with specific-to-type models that accurately replicate a specific platform.

The Own-ship simulation includes all sensors, including Radar, RWR/ECM and IR/IRST. These are fully correlated with the Terrain and Out-of-the-Window database providing a large gaming area.

A range of ownship weapons is modelled with arming, targeting and weapons release logic and weapon fly-out characteristics. The FTCS includes simulation of high fidelity friendly and opposing entities, complete with sensors and weapons.

All aspects of the simulations are User-configurable. The User can introduce changes in Entities, Weapons and Sensors through a simple menu-based system at the Controller/Operator Station.

KEY FEATURES

- A low-cost, portable Pilot Station that can be supplied as Flat Panel Displays with HOTAS controls. A replica cockpit can also be supplied.
- Simulation of generic cockpit displays including MFD’s with functional soft bezels.
- Simulated Out-of-the-Window Display, including HUD overlay with a Single or 3 Channel flat panel display.
- A comprehensive Controller/Operator station permitting training scenario and mission preparation, aircraft configuration changes, resets & freezes.
- All hardware uses COTS displays and PC’s ensuring low cost and easily managed obsolescence.
- Low impact facility footprint using normal office environmental conditions.
- Network capable: multiple devices can be networked and interfaced to existing training and evaluation infrastructure via DIS/HLA networks.
- Tactical Environment model providing simulation of large, complex peacetime & wartime environments.
- Generic data based simulation for all models with simple tools that permit User modifications to simulated characteristics.

GROWTH CAPABILITY

With a modular design for hardware and software components, the Thales Flight Tactical Combat Simulator can be expanded to keep pace with User requirements.

CONCLUSIONS

The flexibility of the Thales design enables the Flight Tactical Combat Simulator to be used for Pilot Training and also for Analysis and Evaluation. This product is based upon simulators currently in service with the RAF.