Products & innovation

Simulation in a Reconfigurable Package

Frasca's new RTD is making high-level technology available to flying schools that previously were priced out of the game.

General aviation has for several years been riding a wave of new simulation technology that has brought previously unobtainable levels of realism to flying school training devices. This technology has undoubtedly improved simulation training, but for many schools has remained out of reach economically.

One of the most trusted names in flight simulation and training devices, Frasca, is aiming to do something about that with their Reconfigurable Training Device (RTD). The RTD is designed to enable schools to train using the latest sophisticated systems and software without having to shell out the price of a new aeroplane to get it.

The RTD doesn't pretend to be a full flight simulator, but rather a robust and flexible Advanced Aviation Training Device that can represent well enough one of many aircraft types and ensure the transfer of training benefits both the student and the school.

The realistic outside world environment is displayed on flat-screen LCDs, using either one or three screens for a greater wrap-around experience. The RTD can also be used as an open device or with a closed cockpit option.

Measuring 1.6 m long, 1.0 m wide and 1.5 m high in open single-screen configuration, the RTD is a compact device that nevertheless packs a lot of capability into a small area. It can be presented to students as a single – or twin-engined aeroplane either as glass cockpit or with analog clocks depending on the customer's desire.

Changing between single and twin is quite snappy, with the power quadrant changed easily using quick release fasteners with hot-swap capability. Modular line-replaceable units (LRUs) take a lot of the struggle out of change-overs. Within only moments the RTD can go from being a Cessna 172 to a Piper Seminole or one of several other aeroplanes in the database.

The heart of the glass-cockpit version is genuine Garmin G1000NXi software. Most simulators and training devices use imitation G1000 software, but Frasca went for the real thing, believing the imitations lack the fidelity that results in more positive transfer of training from the simulator and the actual aircraft.

With the Garmin software, the RTD can reproduce features such as Synthetic Vision Technology, 3D pathway view TAWS and navigation functions such as LPV, LNAV/VNAV and glide paths.

In fitting with Frasca's policy of adopting state-of-the-art technology in their products, the RTD does away with a fixed Instructor's Operating Station (IOS) and instead uses a browser-based interface that can be used from a desktop, phone or tablet. From there, instructors can change the flight conditions such as wind, temperature and time of day and cause one of number of engine or systems failures for the unsuspecting student to have to deal with.

Frasca also kept in mind the need for flying schools to have their flight training devices in service as much as possible. Consequently the RTD is built largely of metal to minimise the chances of things getting broken, which means fewer canceled lessons and more revenue time for the school.

For flying schools looking for realistic flight training in a compact package that is not going to strain the budget to breaking point, the Frasca RTD presents as a very viable option well worth considering.

Frasca Reconfigurable Training Device
From $US64,000
www.ast-simulators.com.au

ABOVE LEFT: Frasca's RTD set up in three-screen configuration.

BELOW: Frasca opted for the genuine G1000NXi software for greater fidelity.