

SafeRoute puts pilots in the picture

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ACSS (on the L-3 display at Hall 4, A14) is forging ahead with the development of the SafeRoute software suite for its TCAS products.

SafeRoute, which uses Automatic Dependent Surveillance-Broadcast (ADS-B) technology, offers a number of software options including merging and spacing (MAS) and surface area movement management (SAMM).

The system works by tracking every aircraft in its vicinity that is equipped with a standard-fit Mode S transponder.

Largest

UPS, the world's largest package delivery company, is adding Saferoute to the SAMM and MAS options to its aircraft. Boeing is also involved with the project by displaying the SafeRoute information via the Jeppesen Class III electronic flight bag (EFB), which it manufactures.

ACSS president Kris Ganase says: "The relationship we have with Boeing is giving us a lot more opportunities for other aircraft.



The SAMM display.

"We are still on schedule to have our first flight trials with UPS in November this year on their Boeing 757 aircraft and certification is still targeted for mid-2007."

Ganase says SafeRoute's SAMM capability offers pilots a better picture of what is happening around them when they are on the ground.

"The SAMM option not only shows a pilot where he is on a runway or taxiway, but where other aircraft are as well. It shows flightcrews their position on an airport surface map and by using other aircraft's ADS-B transmissions, plus TIS-B and

CDTI data, can display the position of other aircraft.

"As SafeRoute is software-based, it can be added as an upgrade to our existing ACSS TCAS products, including T²CAS, TCAS 3000, or TCAS 2000, or it can be hosted within a competitor's system as long it complies with the ARINC653 standard."

Ganase adds that the SafeRoute SAMM option has cost-saving implications too. "If a pilot has a better picture of how many aircraft are taxiing and queuing to take off he can make a more informed decision as to whether he

should start the engines or APU."

SafeRoute's MAS option is also capturing operators' attention due to potential for fuel savings. At a typical commercial airport, aircraft arrive in bunches, causing headaches for air traffic controllers who have to juggle the demands of aircraft wanting to get on the ground with safety and other considerations.

Plan

SafeRoute's MAS facility allows pilots to plan their routes more carefully by showing what aircraft ahead are doing up to 100nm (185km) out. The pilot can then adjust speed to sequence or converge with them in a more efficient manner.

ACSS is also looking at a SafeRoute option that it calls Intrails Procedures.

"This will provide the pilot with enough information to allow him to safely overtake a slower aircraft on long-haul routes." Ganase says. "We are focussing the development of our products on what is already out there and in use. ADS-B is going to be an important component of the Next Generation Air Transport System (NGATS)."