

## THIS WEEK

**NAVIGATION SYSTEMS**  
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### UPS is first to take SafeRoute cockpit system

**A** CSS has submitted the documentation to the US Federal Aviation Administration for certification of its SafeRoute automatic dependent surveillance – broadcast-based cockpit system. It provides four major tools: cockpit display of traffic information (CDTI), merger and spacing (M&S), CDTI-assisted visual separation (CAVS) and surface area movement management (SAMM).

Launch customer UPS Airlines plans to install SafeRoute in all its Boeing 747-400s, 757s and 767s. The first of 75 757s will be modified starting in July, with installation on the 32-strong 767 fleet starting in September. UPS will accept its initial 747-400 from Boeing without the system, with retrofit scheduled for later. The remaining nine 747s and 26 767s on order will have it factory-installed by Boeing. The entire retrofit programme should be completed in 2008.

CDTI provides TCAS-like data, but with greater accuracy. M&S provides guidance to manage descent and arrival into crowded terminal areas, increasing airport capacity while reducing fuel use and emissions.

CAVS allows visual approaches in reduced visibility, increasing airport capacity in marginal visual conditions. SAMM graphically shows the owner's position on the airfield as well the positions of other ADS-B-equipped aircraft, enhancing safety by cutting runway incursions.

UPS will use the M&S tool at its Louisville, Kentucky hub to smooth and tighten the arrival flow. Once suitable agreements are in place with air traffic control, the CAVS feature will allow visual spacing criteria to be used when previously full instrument flight rule separation was needed.

Just two years after ACSS announced its launch, final FAA approval is the last hurdle for SafeRoute's deployment. ■