



Lost

The sad irony of the Comair CRJ crash in Lexington, Kentucky, U.S., is that the Federal Aviation Administration's efforts to improve on-airport navigation information to reduce the incidence of runway incursions should have helped prevent the Comair crew from tragically attempting to take off on the wrong runway, a runway far too short for a successful takeoff.

The first hull-loss accident of a jet airliner in revenue service in the U.S. since November 2001 is a sobering event. It brings up for re-examination a number of potential contributory factors familiar from past accidents. In addition to the danger of pilots losing awareness of their position on the surface of the airport, there also are questions about the roles played by recent taxiway construction at Lexington, control tower staffing levels, and flight crew and air traffic controller performance and fatigue. Right now, however, let's look at airport surface navigation.

A story in this issue of *Aviation Safety World* reviews a warning from a terrain awareness and warning system that prevented a regional jet from landing on a runway far too short to accommodate it

(See "Wrong Airport," page 42). There now are systems that provide the same sort of protection to aircraft on the ground, one from Honeywell and another from ACSS.

Honeywell's Runway Awareness and Advisory System (RAAS), on the market for several years now, uses global positioning system data to issue aural advisories based on aircraft position when compared to airport locations stored in the Enhanced Ground Proximity Warning System (EGPWS) database. RAAS, a simple software upgrade for aircraft using Honeywell's Mk V and Mk VII EGPWS systems, was developed after a Honeywell executive was in an airplane when the flight crew got lost on the surface of a major airport during a snowstorm. A number of airlines have ordered the upgrade.

ACSS expects its SafeRoute system will be certificated by mid-2007. The surface area movement management component of SafeRoute is a graphic representation showing pilots exactly where the aircraft is on an airport surface map display, plus the location of other aircraft and vehicles equipped with automatic dependent surveillance-broadcast or mode S transponders.

SafeRoute also provides visual and aural warnings. UPS was the first to order SafeRoute.

Just as the pilots of the aircraft in this issue's story had a "mental map shift" that allowed them to pick up the wrong runway during a turn towards the final approach course, perhaps the crew at Louisville had a similar shift that would have been unmasked by some location assistance.

These new systems offer an important extra layer of protection against aircraft straying on the airport surface to create conflicts with other aircraft, or pilots attempting to take off from a taxiway or, as in the case of the Lexington accident, the wrong runway. While airport and regulatory bodies should continue to enhance on-airport information to pilots, operators should seriously consider the safety insurance one of these systems provides.

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