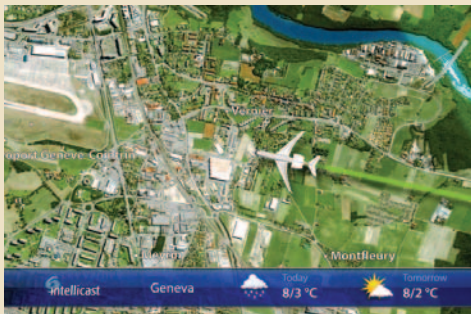


MOVING MAPS MOVE TO NEW LEVEL OF ENTERTAINMENT AND INFORMATION

It hasn't been that long since the moving-map display was little more than something to keep the kids occupied during a long flight, and even they swiftly bored of the tiny airplane icon crawling across a map more appropriate to a grade-school classroom. But that was long ago, at least in terms of technology.

The moving-map display today is, for want of a better description, the latest in "infotainment," with high-definition 3-D, virtual-reality graphics, satellite-derived topographic features, a view from the cockpit (including the pilot's head-up display), destination information, audio/video safety briefings, satellite weather, multiple-language support, and a choice of real-time news—from the stock market to headline news to sports scores.



The Version 2 moving map from Rockwell Collins takes advantage of the contributions of some of California's best virtual-reality gamers.



The first leap forward was Lufthansa Technik's NiceView, a component of the Hamburg, Germany company's Nice cabin management system. The system's most innovative feature was the graphics and use of satellite-derived topographic imagery. Earlier this year, Lufthansa introduced an upgrade focused on a handheld, touch-screen wireless controller with a colored graphical user interface.

Rockwell Collins has only recently taken its Airshow moving-map system into what it's calling Version 2, which has new and refreshed features to take advantage of some 200 3-D enhancements. Best of all, say some who saw it introduced at EBACE, is the "dramatically realistic" result of input from some of Southern



The new SkyPro moving-map display from Emtec is an example of the multiple information sources available, as well as the virtual-reality imagery that can be accessed using satellite mapping.

California's top video-game programmers.

"We're competing in terms of 'eyeball experience' for a growing customer base whose experience in virtual-reality gaming has created greater expectations. This enhancement is designed to meet those expectations," said Rockwell Collins director of product marketing for cabin systems Andrew Mohr.

One of the most practical improvements of Version 2 is that it is purely software. It will enter service next year and will be the baseline for existing hardware and new system shipments. It will also be available as an upgrade to existing hardware.

Intheairnet is offering its next-generation PaxMap, with day-and-night satellite imagery as fine as five-meters per pixel resolution. "City" packages provide "ultra-high-resolution" images of select cities, allowing users to view airports, buildings and neighborhoods in remarkable detail. It is typically an integral part of Intheairnet's SharkFin digital audiovisual on-demand system, or can be integrated with an existing in-flight entertainment system, or with the Irvine, Calif. company's own CabFlex cabin entertainment and management system.

Flight Display Systems of Alpharetta, Ga., offers a helicopter moving map, a solid-state unit designed specifically for use on rotary-wing aircraft. It includes map sequences through three adjustable zoom levels down to individual named streets, making it well suited for low-altitude helicopter flight. The database includes more than 1.5 million cities and points of interest.

Other points of interest—such as helicopter facilities or homes—can be added. A separate installation kit can be used to customize and program map settings.

Rosen Aviation began shipping its upgraded RosenView LXM moving map earlier this year, developed in partnership with Quantum3D and featuring the San Jose, Calif. company's three-

dimensional aspect. An infrared remote control device is optional. The high-definition variant will be available later this year.

In partnership with Heads Up Technologies of Carrollton, Texas, licensed to design and manufacturer XM satellite radio equipment for aircraft applications, Eugene, Ore.-based Rosen is also offering XM radio content.



Three-dimensional imagery on the moving-map display has become commonplace.

Honeywell's third-generation JetMap III delivers high-definition and 3-D imagery, and it can also allow the user to pan across the entire globe, regardless of the aircraft's position, as well as navigate easily through 13 zoom levels.

It delivers a five-day weather forecast for the destination, or anywhere else. Also featured, via the aircraft's Iridium satcom system, are scrolling headlines, personalized stock reports, five-day weather forecasts and complete text for news and sports.

What next? It almost seems that moving-map technology has reached an apex, but those who are on the research-and-development side of the house believe otherwise. Lufthansa Technik, Rockwell Collins and Honeywell are still pouring money into research to make moving-map systems more reliable, more easily maintained, more entertaining and more intuitive.

So what's next? That is something the masters of the moving map are not revealing. At least not yet.

—K.J.H.