



## TECHNOLOGY

# Kollsman sets its sights on vision of the future

**Brendan Gallagher**

Head-up displays, forward-looking infra-red, synthetic vision. Is it a fighter? Is it a \$40 million business jet? No – it's the top-end general-aviation aircraft of the future, says Randy Moore, general manager of Kollsman Commercial Aviation Systems (Hall 1, C17).

Combining US home-grown infrared technology with expertise from Israeli parent company Elbit, Kollsman is developing and marketing a range of enhanced-vision systems designed to fit aircraft all the way from twin-piston Beech Barons up to business jets and airliners.

The Kollsman range – branded the Vision Based Cockpit – currently comprises the GAViS infrared imager for the general aviation and lower-



Randy Moore: Looking to get the price down.

end business jet markets, the high-end EVS II IR enhanced vision system and the compact Micro-Vis HUD. Not yet commercially available but at an advanced stage of development is the ESViS enhanced synthetic vision system, combining IR with terrain database-derived imagery.

The company's ambition

is to push the most advanced situational awareness technologies out into markets where they have never gone before.

"The challenge is to slash prices below the traditional levels for this kind of equipment," Moore said yesterday. "So we're looking to get the price of our HUD down to half the industry-standard

\$100,000, and to do the same for the infrared imager."

At those price points, says Moore, Vision-Based Cockpit would be economically just right for the \$1.5-3.5 million VLJs. "They are the sweet spot for this product initially, between higher-end GA and the business jets," he says.

The neat GAViS can be mounted in an aerodynamic fairing in the same way as an antenna, eliminating the cost and complexity associated with modified radomes or separate fairings.

It is now being offered at a list price of \$92,500. "That compares with a typical \$130-150,000 for competing products," says Moore.

EVS II has been flying since June last year in a Gulfstream GV operated by the airframe manufacturer and in Kollsman's own Cessna 340. It is due to be type-certified in the GV this autumn.

Improvements over Kollsman's first-generation Enhanced Flight Vision System include an increase in sensitivity and detectability, and software improvements to manage gain and prevent white-out of the IR image by runway lights.

## IN BRIEF

## Hamilton signs Ryanair deal

Hamilton Sundstrand has announced the signing of a long-term maintenance agreement with Ryanair.

The agreement covers the test, repair and overhaul of all Hamilton Sundstrand's electric power and cabin pressurisation products fitted to Ryanair's fleet of Boeing 737NG aircraft.

Brendan Curran, purchasing and materials manager for Ryanair says: "This agreement is a reflection of the confidence we place in Hamilton Sundstrand Aerospace's proven ability to provide top quality maintenance support.

"We will only work with suppliers like Hamilton Sundstrand who can ensure we continue to provide the highest levels of safety and quality as we grow to carry 70 million passengers by 2012."

## AIR TEC promos Frankfurt show

AIR TEC (Hall 4, E23) is here to promote its International Aerospace Supply Fair which takes place 17-20 October at the Exhibition Centre Frankfurt, Germany.

The show is aimed at the complete supply/life cycle of aviation and offers an opportunity for everyone in the supply chain to display their products and services.

## Mettis on Trent

Mettis Aerospace (Hall 4, B11) has won contracts worth nearly £20 million (\$36 million) to supply high-precision engine components to Rolls-Royce.

The Midlands-based company will supply engine sector stator vanes for the Trent 900, launch engine for the A380 Airbus, and annulus fillers for a range of engines including the Trent, BRR and RB211.

## Innovation award for Galileo

Galileo Avionica has received an award for product innovation for its Falco unmanned aerial vehicle (UAV).

The Falco, a tactical surveillance remote control system, won the product differentiation innovation award from consultants Frost & Sullivan for innovative UAV development and ability to satisfy current market demands.

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## Trial leads UPS to fit ADS-B software

**Colin Baker**

Parcel carrier UPS says trials at Louisville International airport with specially equipped aircraft suggest that it will use one million gallons less fuel per year if the technology is installed in all its fleet.

Capt Karen Lee, UPS director of flight operations, says the results of the study using SafeRoute software from L-3 subsidiary ACSS showed a 34% reduction in emissions below 3,000ft (900m) and 30% less noise below 6,000ft. A 15% increase in capacity at Louisville could be possible if the technology was adopted, she says.

### Equip

As a result, UPS is preparing to equip its Boeing 757s by 2008 and studying the business case for rolling it out on other types.

FAA administrator Marion Blakey puts her weight behind the UPS programme. "The numbers are very

compelling when you look at what this technology can do," she comments.

SafeRoute uses automatic dependent surveillance-broadcast (ADS-B) technology and includes a merging and spacing option that allows regular, smooth descent, and a surface area movement management option (SAMM) to guard against runway incursions.

### Global

ADS-B is a global positioning system-based technology that provides real-time monitoring and tracking of aircraft identification, movement and position.

UPS's Lee warns that as more airlines adopt ADS-B technology, in the longer-term airports will have to exclude non-ADS-B aircraft from some runways. "We are going to have to have that discussion at some point.

"Some want to equip, and others don't. At some point, we need to say these runways are for ADS-B aircraft and these are traditional runways."