## **Digital Head-Up Display**

Honeywell



The Future of DisplayTechnology Is Looking Up

www.rochesteravionicarchives.co.uk

# Honeywell Digital HUD

#### The Future of Display Technology Is Looking Up

From the world's leading innovator in flight safety and cockpit display technologies comes an all-new Digital Head-Up Display (HUD) system that gives pilots their best view ever of essential flight information, without having to look down at the instrument panel during the most critical phases of flight.

Honeywell's new HUD system for air transport aircraft uses all-digital interfaces and the latest liquid crystal display (LCD) projection technology to generate superior graphics and an image that is sharper, clearer and more viewable than any available on today's best cathode-ray-tube head-up displays.

With intuitive symbology, Flight Path Vector capability and an innovative Enhanced Vision System (EVS), the Honeywell Digital HUD sets a new standard for situational awareness, flight safety and on-time schedule performance-especially at night and in lowvisibility weather.



Left: Developed in partnership with Electrooptics Industries Ltd., the Digital HUD incorporates an LCD projection system for maximum brightness, resolution and reliability.

Right: Simple controls allow for independent adjustment of the HUD symbology and the infrared sensor image.

#### A New Approach to Head-Up Displays

Honeywell's Digital HUD system offers operators today's most advanced technology, with features that pilots value most, and the capacity to grow and add capabilities in the future. The benefits are clear:

- Superior display graphics that are sharper, clearer and more viewable thanks to all-digital interfaces and the industry's best LCD-based projection system.
- Intuitive symbology—designed by pilots, for pilots—consistent with head-down displays.
- · Full compatibility with existing avionics platforms, flight management systems and navigation aids, including GPS.
- Unequalled situational awareness enhanced by a three-dimensional EVS image that conforms to the outside world, overlaid with critical flight data.
- Flight Path Vector technology that makes takeoffs and landings easier, smoother and safer.
- Unimpeded view, thanks to a unique curved combiner that gives pilots total and instantaneous field of view.
- Enhanced safety because pilots keep their heads up and eyes focused on the outside world.
- Forward-looking infrared (FLIR) sensors provide an improved, conformal image of runways, traffic and terrain-day or night, foggy or clear.
- Fewer weather delays and reduced takeoff and landing minimums; the Honeywell Digital HUD is fully capable of being certified to Category III standards.
- Full flexibility with smaller, lighter, more reliable components; the Honeywell Digital HUD can be installed in any aircraft in a single or dual configuration.

#### **Experience Counts**

When experience counts, count on Honeywell. We've been at the forefront of every major advance in aircraft display technology. Today, we're the leading provider of LCDs for air transport, business and regional aviation, and space platforms.

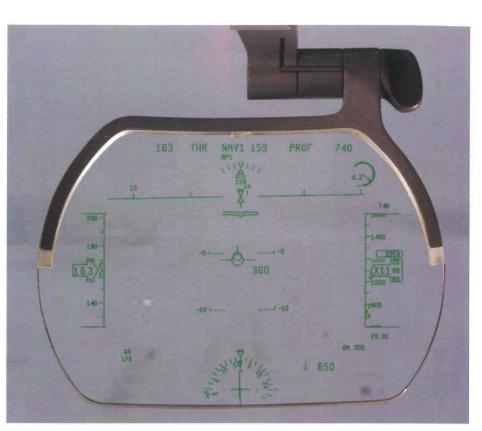
We have more than a decade of Head-Up Display experience-with the highly successful HUD 2020 system for Gulfstream business jets and HUDs certified for the new-generation Boeing NG 737. In addition, we're the only company to successfully integrate and certify a HUD system with EVS. Our new Digital HUD system will fly first on Boeing MD-10 and MD-11 and Airbus A300/A310 aircraft.



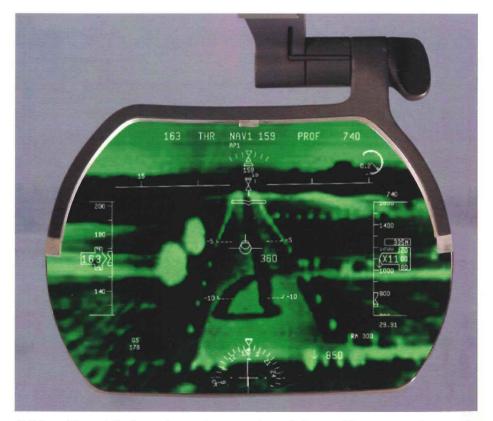
The digital HUD is completely compatible with forward-looking infrared (FLIR) sensor systems. The FLIR-based Enhanced Vision System improves operational efficiency and increases safety for airline operations. The Enhanced Vision System is a product of Kollsman, Inc. FLIR photos courtesy of Kollsman, Inc.



The first certifications will take place on wide-body airplanes like the MD-10, MD-11 and A-300.



during critical phases of flight. FLIR photos courtesy of Kollsman, Inc.



EVS "sees" through the fog and presents a monochromatic image of the runway and surrounding terrain, further enhancing situational awareness. FLIR photos courtesy of Kollsman, Inc.

The conformal HUD symbology and Flight Path Vector helps to improve situational awareness

#### **Global Customer Support**

Our global aftermarket service and support network, including customer engineering, the SPEX Exchange Service, and maintenance, repair and overhaul centers in North America, Europe and Asia-Pacific are available around the clock to provide seamless support for Honeywell HUD systems and all avionics products and systems.

#### **Find Out More**

For more information on Honeywell Digital HUD systems for commercial aircraft, contact:

Aerospace Electronic Systems Air Transport Systems Honeywell International Inc. 21111 North 19th Avenue Phoenix, AZ 85027 Tel: 602.436.2522 Fax: 602.822.7272 www.honeywell.com

C61-0117-000-000 July 2004 Printed in U.S.A. © 2004 Honeywell International Inc.

### Honeywell