



Enhanced Vision System



EVS

EYE View

Opgal's EVS is a highly sensitive, wide-spectrum infrared camera that provides commercial, business and military aircraft pilots with clear Head-Up Display (HUD) video images of the runway environment. Day or night, EVS significantly improves flight safety and situational awareness, both in the air and on active taxiways and runways. EVS is the first and only FAA-certified enhanced vision system, and an essential component of the Kollsman's All Weather Window™ system installed in the Gulfstream business jets, FEDEX fleet and Embraer aircrafts. In the commercial market, EVS is installed by Jetcraft in retrofit airplanes. Winner of the 2003 Robert J. Collier award, the Gulfstream G550 is the first civil aviation aircraft to be equipped with Opgal's EVS.



EVS Specifications



Camera Applications

Key Features

The OPGAL EVS's outstanding natural real world scenes are obtained through a unique combination of capabilities, including:

- Highly sensitive IR sensor with a NETD less than 0.005°C
- Powerful electronic processor
- Clear images of scenes at different extreme temperatures, achieved by very high dynamic range
- Proprietary image-processing software algorithms
- High acquisition rate; 300 frames/second
- Anti-Blooming mechanism cancels interference afflicted by irrelevant sources of light and/or heat

Advantages

The benefits of OPGAL's EVS are clear:

- First and only FAA-certified EVS
- Delivers unprecedented situational awareness that enhances safety and leads to fewer diverted, delayed or cancelled flights
- Lower landing minima for Category I runways (100 ft.)
- Reduced take-off requirements
- Detection of approach lights and obscure environmental features in low visibility
- Fog penetration and clearer Infrared video images
- Minimal training requirements

Camera Configuration Options

Features	Description
Spectral Range	1.3μ - 5.5μ
Acquisition Frame Rate	300 frames/second
NETD	< 0.005°C
Dynamic Range	> 60 dB
Dewar Detector Cooler (DDC) Type	InSb 320X240 element FPA
Field of View	32° H X 24°V
Non Uniformity Correction (NUC)	0.03% including bad pixel correction
Output Video	RS-170, digital 14 bits over fiber optics
Power Supply	28VDC, 2.5A
Environmental Conditions	-40°C - +45°C

Applications

Aviation safety is at the core of Opgal's EVS, ensuring precision approach and safe landing in reduced visibility conditions, including thick fog, smog, heavy rain and snow. Its operating bandwidth fuses both the near and medium IR spectrum to provide clear images of approach and runway lights, runway threshold, buildings, obstructions, and aircraft in close proximity. These images, which are normally undetectable to the pilot's naked eye at night and in bad weather, are easily detected by Opgal's EVS, providing the visual cues necessary for safe landing.

Note: Distances are calculated based on geometrical values and do not take into account atmospheric conditions



For further information or interest regarding Enhanced Vision System (EVS System) Please call Kollsman +1-603-886-2113 or visit Kollsman Web at www.kollsman.com

www.opgal.com | For additional information please contact us at: info@opgal.com.

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