GEC Marconi Avionics Mission Avionics Division

KNIGHTHELM Helmet Mounted Display



A 24 hr mission capable helmet system

This 40° Field of View Helmet incorporates a one piece module for both day and night mission requirements. For low visibility and operating during night missions the helmet will display both light intensified images from third generation image intensifiers or Forward Looking Infra Red (FLIR) imagery from a FLIR sensor. This, together with full flight and weapon information is projected onto two clear combiners placed in front of each of the pilots eyes which can be flipped up out of the line of sight to enable full uninterrupted vision or to interface with the gunners sight for helicopter applications.

The ability to optically mix the image intensified channel with FLIR imagery provides the absolute integrity of external scene information essential for night operation of rotary wing aircraft in a nap of the earth environment.

Sensors and weapons are interfaced to the helmet system via GEC's Advanced Head Tracking system which is a pulsed DC system for deriving the line of sight of the helmet. The system comprises three functional components:

Transmitter, Receiver and Signal Processing Unit.





Knighthelm

- · Selected for German UH-Tiger development
- · Full day/night capability
- · High accuracy head tracking system
- · Integrated night vision (NVGs)
- · Low light level (0.5mlux) performance
- · 40° field of view
- · Binocular display
- · Off-aircraft NVG operation
- · Aircrew head, face and eye protection
- Head Supported weight <2.4Kg (in 24hour configuration)
- · Head roll stabilisation
- · N.B.C. compatible
- · Stowable eyepieces
- · Dual 1553 capability
- Growth potential

Outline Specification

Field of View 40°

• Exit Pupil 15mm

• Eye Relief 30mm

• Weight <2.4 Kg

Eyepiece Stowable

Tracker Static Accuracy
 0.2° (at 3σ)

• Azimuth ±180°

• Roll ±180°

• Pitch ±90°

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