

## CRUSADER® - FULLY INTEGRATED DISPLAY HELMET

Today's airforces are required to operate 24 hours a day at all altitudes in all weather and in a wide variety of roles. They must successfully counter multiple threats from highly sophisticated ground and air defences.

To ensure mission success with minimum workload, pilots must have total, immediate control of the aircraft's weapon and sensor systems.

The CRUSADER® fully integrated display helmet provides this control, thus ensuring increased:-

- ▶ safety;
- ▶ situational awareness;
- ▶ operational effectiveness;
- ▶ survivability.

CRUSADER® gives this enhanced capability by providing a visor projected stroke / raster display of all cockpit / weapon / sensor data including night vision enhancement.

With an integrated optical head tracker CRUSADER® gives:-

- ▶ off-boresight weapon aiming of short-range air-air missiles;
- ▶ radar and infra-red search and track pointing;
- ▶ inter-cockpit cueing.

CRUSADER® has been developed to put the man first and to ensure every related discipline is **fully** integrated.

### THE TEAM

A world-class team was formed to design, develop and produce CRUSADER®



**GEC-Marconi**  
AVIONICS



**PILKINGTON**  
OPTRONICS

**GENTEX**

A team standing together with the capability and technology to provide the most advanced integrated helmet system in the world.

DISPLAYS DIVISION

## PRINCIPLE FEATURES

### ● Applications

Suitable for air combat, strike, attack, recce, rotary wing and transport operations.

### ● Life Support

Fully integrated with COMBAT EDGE and CD respirators.

### ● Visor Projection

Eye relief - > 50mm

Exit pupil - > 15mm

Field of view - up to 40°

Monocular or Biocular / Binocular

### ● Optical Tracker

High accuracy

High resolution

Low latency

No routine boresighting is required after aircraft installation.

### ● Interface

Will interface with all known and future aircraft systems.

### ● Protection

Ejection safe.

Meets current safety levels with lowest possible head weight.

Integrated with EOCCM / flash protection.

### ● Night Vision

Fully integrated night vision system with electronic coupling.

### ● Electronics

Display processors, display drivers and interfaces are state of the art and include 32 bit parallel processing and software programed in Ada for maximum flexibility.

### ● Environmental

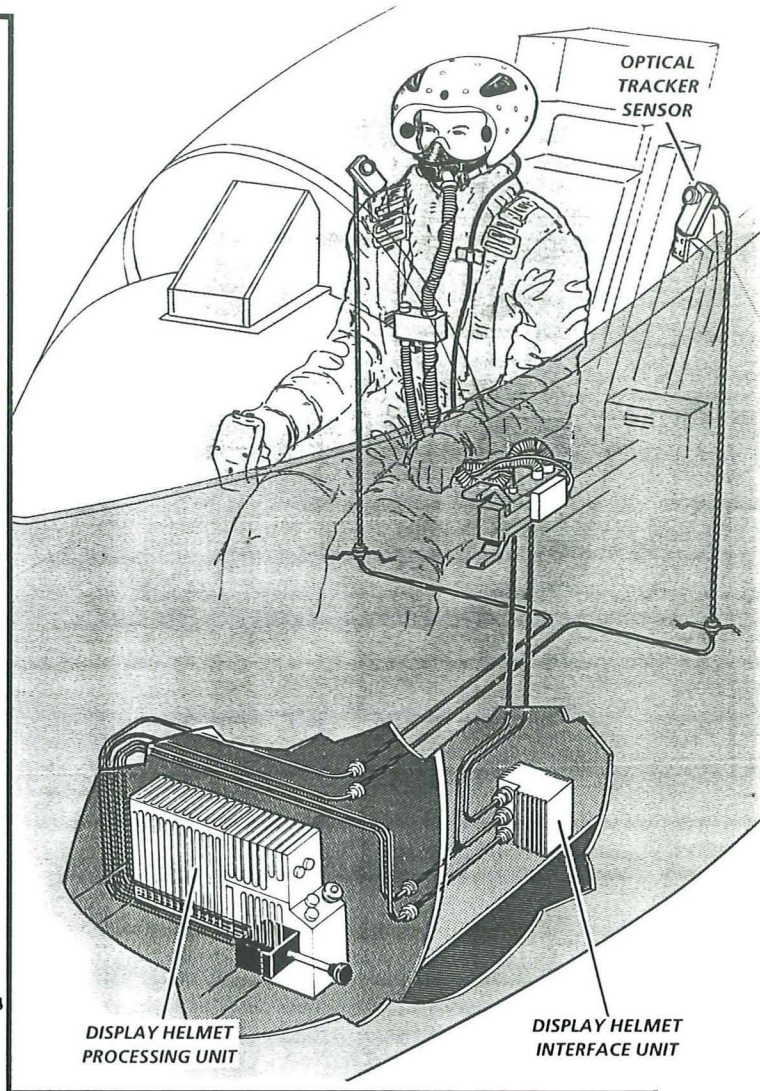
Operates throughout the military environmental envelope.

### ● Maintainability

Fault isolation accomplished by built-in-test.

### ● Reliability

Designed using component stress derating and worst case analysis.



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**GEC-Marconi**  
**AVIONICS**

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