

Display System for GRIPEN

ERICSSON 

www.rochesteravionicarchives.co.uk

THE EP 17 A NEW ERA IN COCKPIT DISPLAY TECHNOLOGY



The Gripen multi-role fighter is the first in a new generation of combat aircraft to take advantage of – and implement – the latest achievements in computer technology, ergonomics, materials and aerodynamics.

In the Gripen, traditional instrumentation has been replaced with a computer-controlled system with advanced image presentation – the Ericsson EP 17.

Here, information from multiple sources – both in and outside the aircraft – is collected, and it is here the information is processed and presented to the pilot to support his decision-making. And it is the pilots, naturally enough, who have influenced the design of this superior man-machine interface where HOTAS, "Hands on Throttle And Stick", has been the underlying principle.

There are four presentation areas in the EP 17:

- Head-Up Display, HUD, with flight data, vectoring and sighting information
- Flight Data Display, FDD, with flight, system and weapon data
- Horizontal Situation Display, HSD, with a tactical overview based on an electronic map
- Multi-Sensor Display, MSD, with information from radar and other sensors

The system is developed to meet the rigorous demands for functionality and effectiveness – today – and far into the 21st century:

The pilot in focus

Man's physical requirements and capacity have been the primary focus in designing the system around which all other cockpit functions are tailored. No effort has been spared to create a pilot-friendly environment.

Excellent situation awareness

Gripen's data link and sensor systems support the pilot with a unique and secure information base. But only information that is relevant at that particular moment is presented – neither more nor less. The pilot can – at any given moment – rely on receiving clear and precise information, quickly, surely and correctly.

Flexibility and adaptability

The Gripen is a true multi-role aircraft. With the push of a button, the pilot can shift from one role to the other – and back again. The cockpit set up and presentation logics remain essentially the same despite the change in roles, allowing the pilot to feel at ease in every situation.

Adapting to new tactical requirements is done quickly and easily, thanks to the use of high-level language and a powerful program development system.

Growth potential

Modular construction means that integrating new sensors and weapons can be done simply, rationally and cost effectively. The system architecture provides built-in growth potential in the form of extra board slots and available CPU and memory capacity.

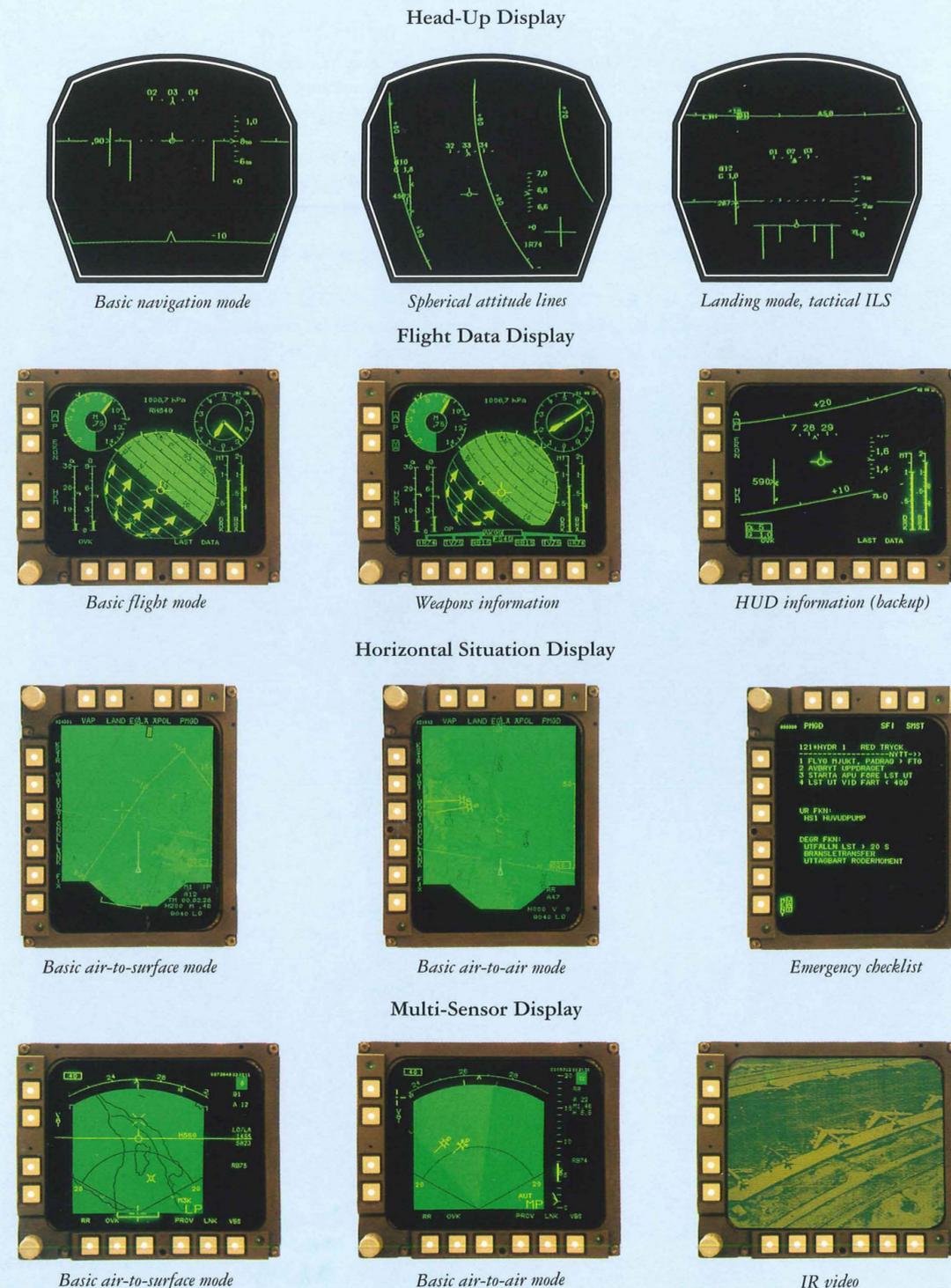
Recording

To meet intelligence gathering and training requirements, the EP 17 includes a forward-looking TV camera and a videocassette recorder for storing images, data and sound.

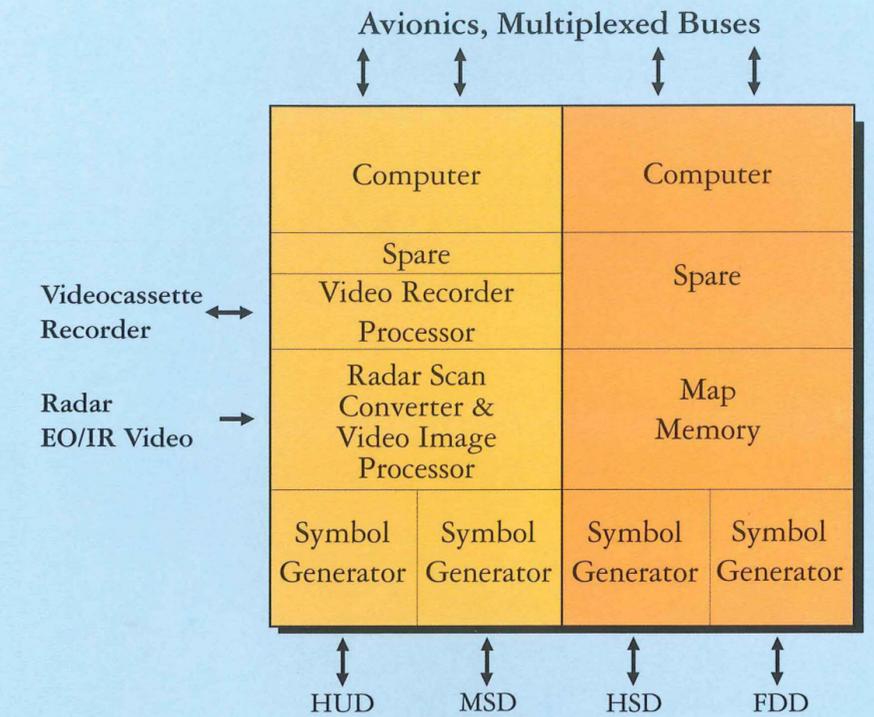
Advanced simplicity

The Gripen is built for easy maintenance. An efficient built-in test system gives clear information directly on the screens. Altogether, this means high availability at a low cost.

Display Information Examples



Display Processor



Technical data

Head-Up Display

- Field of view: 20° x 28°
- Diffraction optics
- Symbol generation through strokes, with possibility to display raster images

Multi-Function Displays

- Three video systems, 525/675/875 lines
- Identical and inter-changeable hardware
- Display area: 120 mm x 150 mm (5" x 6")

Display Processing

- Full software control in computers and symbol generators
- All raster graphics provided with anti-aliasing
- Full color capacity
- Digital map in five scales
- Sensor information processing including radar scan conversion

Recording

- Recording of multiplexed sensor video, MIL-STD-1553B bus data and audio information
- HI-8mm format videocassette recorder

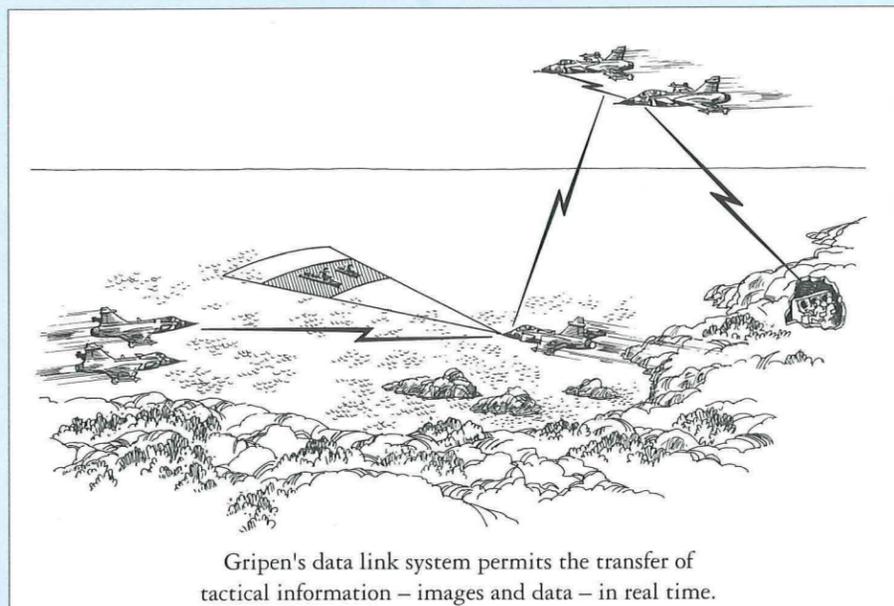
EP 17 Units



Videocassette Recorder



Data Link Communications



Gripen's data link system permits the transfer of tactical information – images and data – in real time.

Ericsson's 70,000 employees are active in more than 100 countries. Their combined expertise in switching, radio and networking makes Ericsson a world leader in telecommunications. Ericsson is also a leading supplier of defense electronics.

Ericsson Radar Electronics AB is Ericsson's core company for defense electronics, providing ground-based, shipboard and airborne radars, display systems, electro-optics, communications and electronic warfare equipment.

The civilian production comprises microwave radio links and radar beacons.

Ericsson Radar Electronics AB is a center for Ericsson's research and development in the field of microwave and very high frequency electronics for telecommunications – Ericsson's core business area.

Ericsson Radar Electronics AB
Airborne Electronics Division
S-164 84 Stockholm
Telephone +46 8 757 30 00
Telefax +46 8 752 81 72

EN/LZT 110 384 R1
© Ericsson Radar Electronics AB 1994