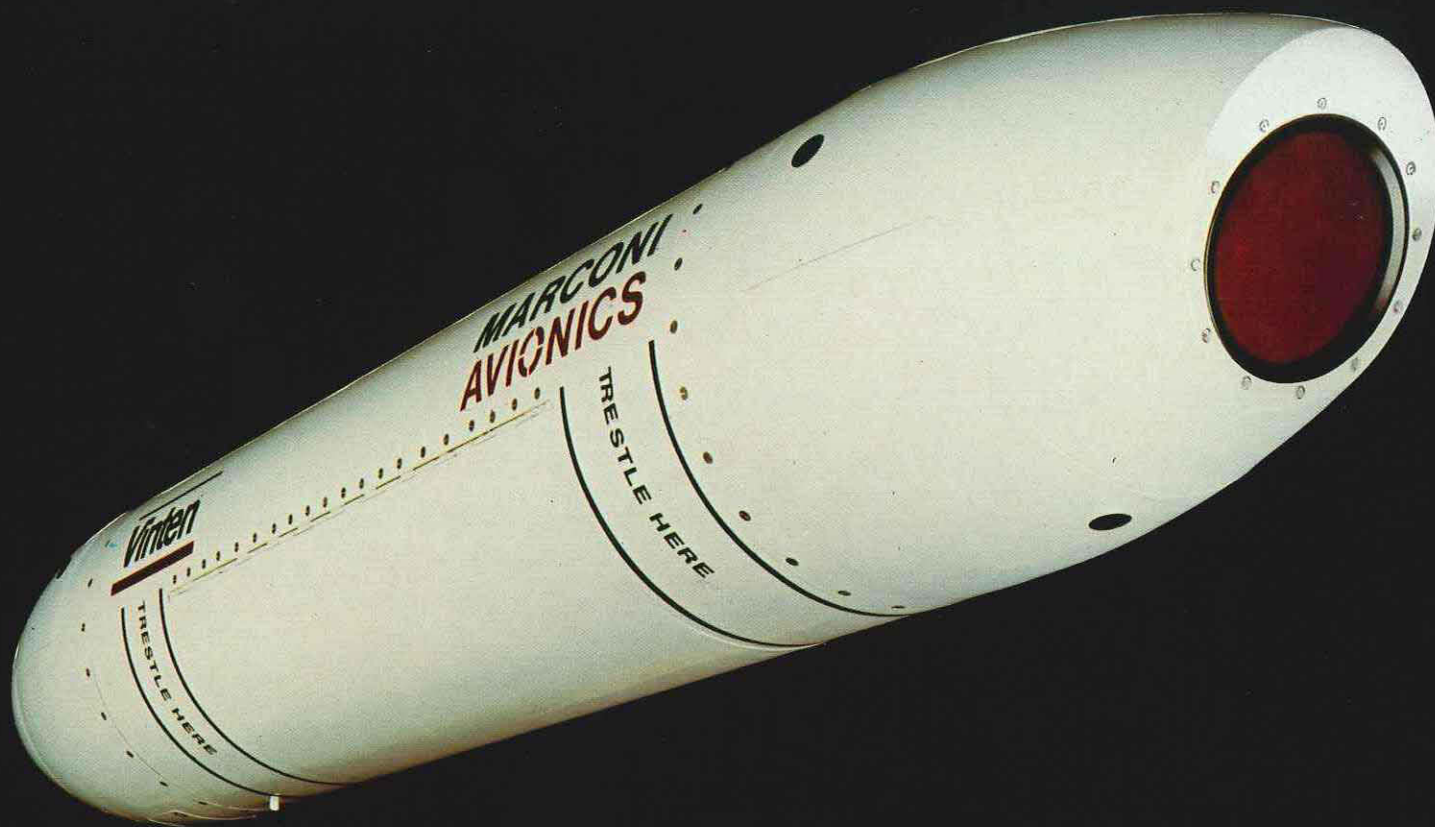


# NAV/ATTACK FLIR POD

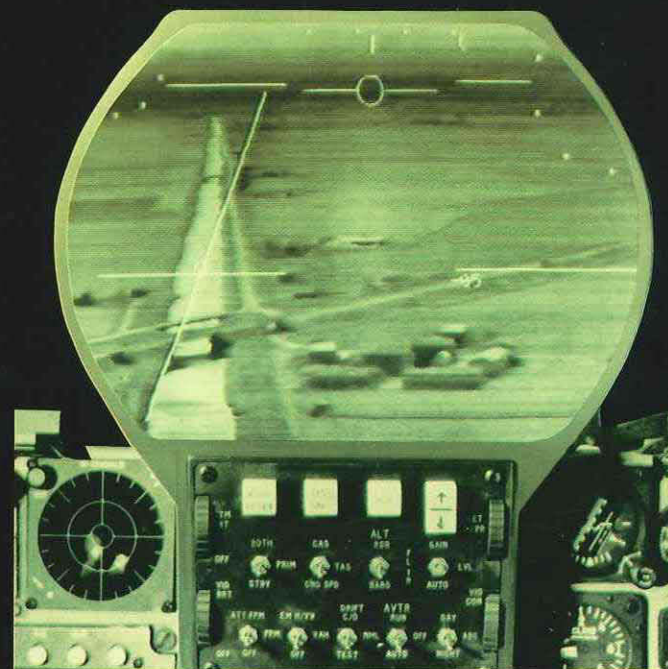


The NAV/ATTACK FLIR Pod is designed to meet the requirement for pilot night vision and weapon aiming in helicopters and fixed wing aircraft.

The Vinten Pod is fitted with a Marconi Avionics FLIR based on UK Class II Thermal Imaging Common Modules (TICM II).

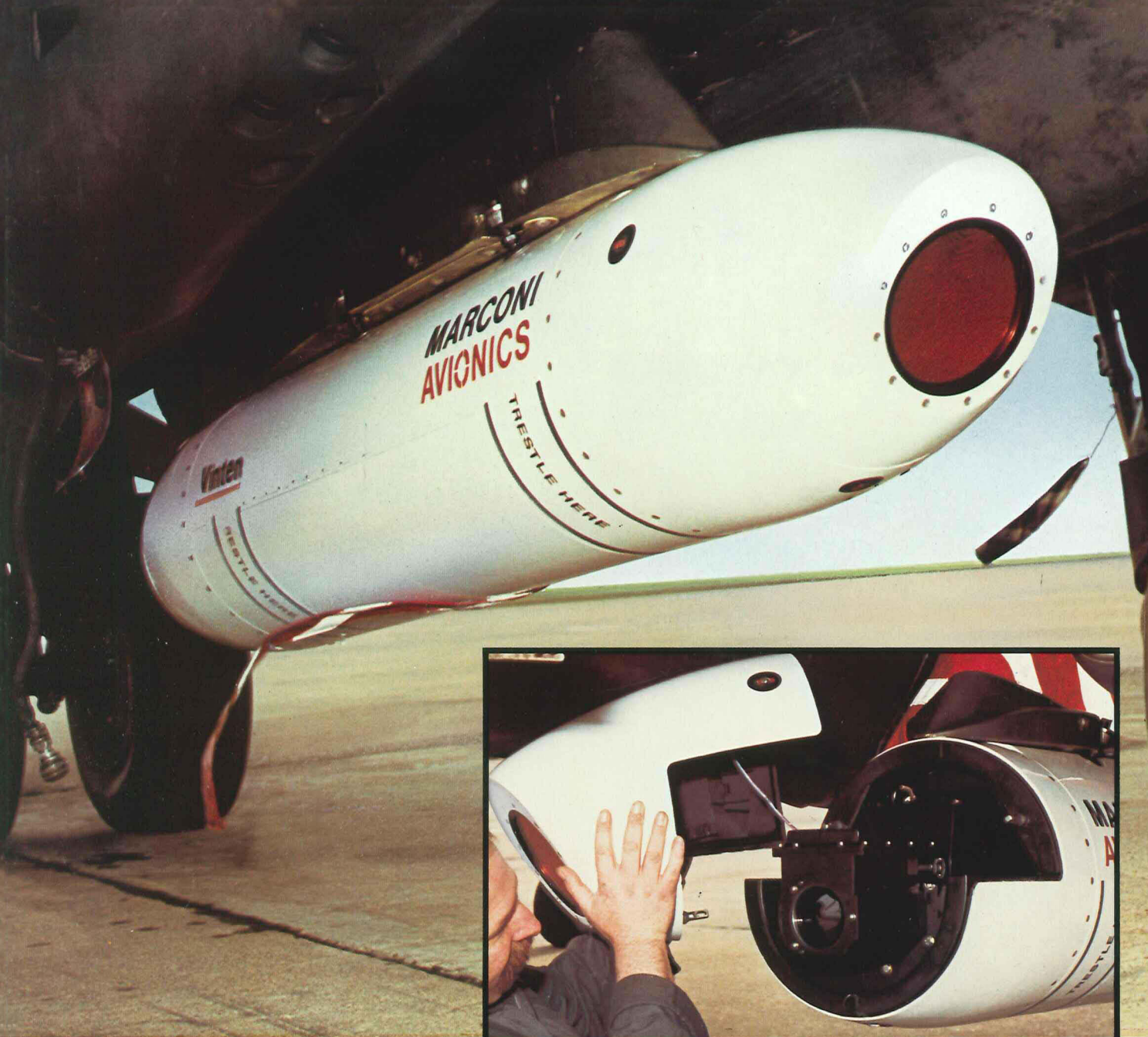
The NAV/ATTACK FLIR Pod is a cost effective and flexible system which can be readily attached to many different aircraft types.

*TICM II FLIR image on pilot's Head Up Display.*



## MARCONI AVIONICS





FLIR Pod on fuselage centreline mounting.

Close up view of FLIR Pod with front cover removed.

The TICM II based FLIR is a high resolution fully automatic thermal imaging system configured from modules developed under the UK Thermal Imaging Common Module Programme funded by the Ministry of Defence.

The programme meets the major thermal imaging requirements of all armed services over the coming decades. The modules which are now in production, are being supplied for a variety of projects in the U.K. and abroad.

The TICM II FLIR provides enhanced twenty-four hour operation in adverse weather conditions, haze and battle-field smoke. The FLIR maximises these thermal imaging characteristics to give unsurpassed capability for pilot night vision, surveillance and weapon aiming.

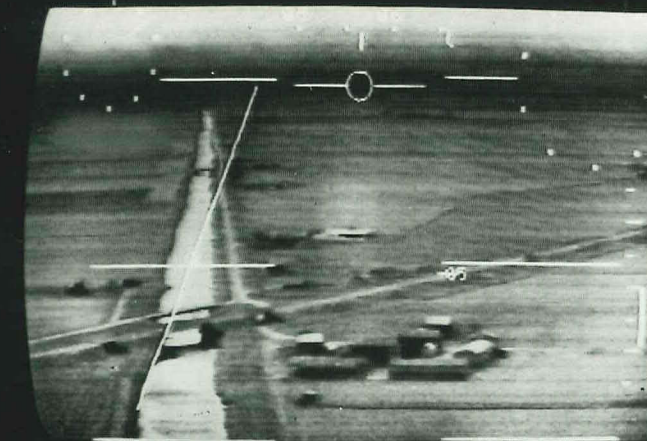
TICM II employs advanced signal processing techniques together with the SPRITE detector for outstanding picture resolution. The imager provides fully automatic 'Hands Off' operation for reduced pilot workload.

The modules are built to full military standards for maximum reliability and effectiveness in the airborne environment. FLIR video can be displayed Head Up or Head Down and recorded for post flight analysis.



TICM II modules are now in full scale production for the UK Ministry of Defence. The Processing Electronic Modules are produced by Marconi Avionics. The Scanner Head Modules are produced by Rank Taylor Hobson.

## TICM II Thermal Imaging Common Modules Class II



High resolution TICM II thermal pictures provide the pilot with the confidence essential for safe low level night time missions.



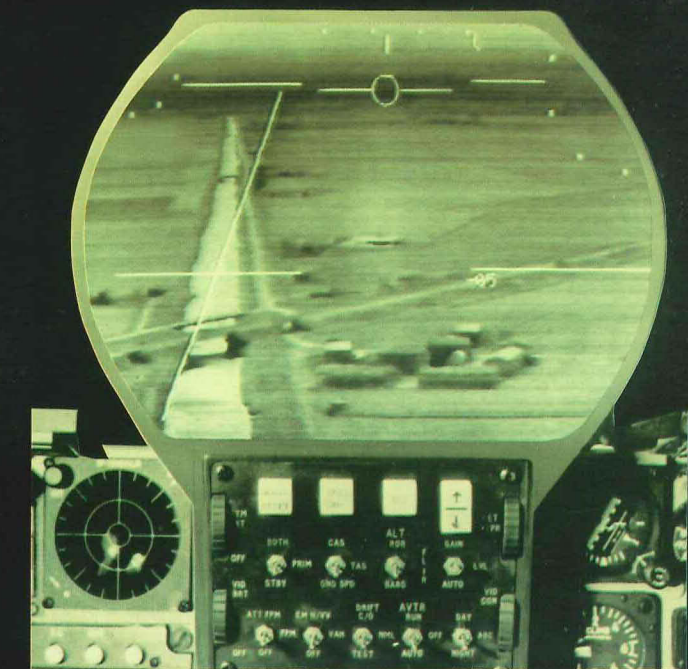
Integral facilities such as aiming marks and gated control areas can be displayed on the thermal picture. The control functions for image polarity and gain and offset are shown above and below the active picture area.

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TICM II FLIR image on pilot's Head Up Display.





## Pod Equipment

TICM II Scanner Head and telescope  
TICM II Processing Electronics Unit  
Cooling air pack  
Video Cassette Recorder (VCR)

## Aircraft Equipment

Ruggedised video monitor (to provide alternative or supplementary image to HUD)

Cockpit Control Unit comprising:

TICM II FLIR controls  
VCR Controls

Interface Wiring to pod.

## Vinten Vicon 70 Series 17

### Description and Performance Data

#### Location

On aircraft external fuselage or wing store pylons on NATO Standard 14 inch (100 lbs) or 30 inch attachments (DEF Standard 13-8, MIL-A-8951E) or to customer specification.

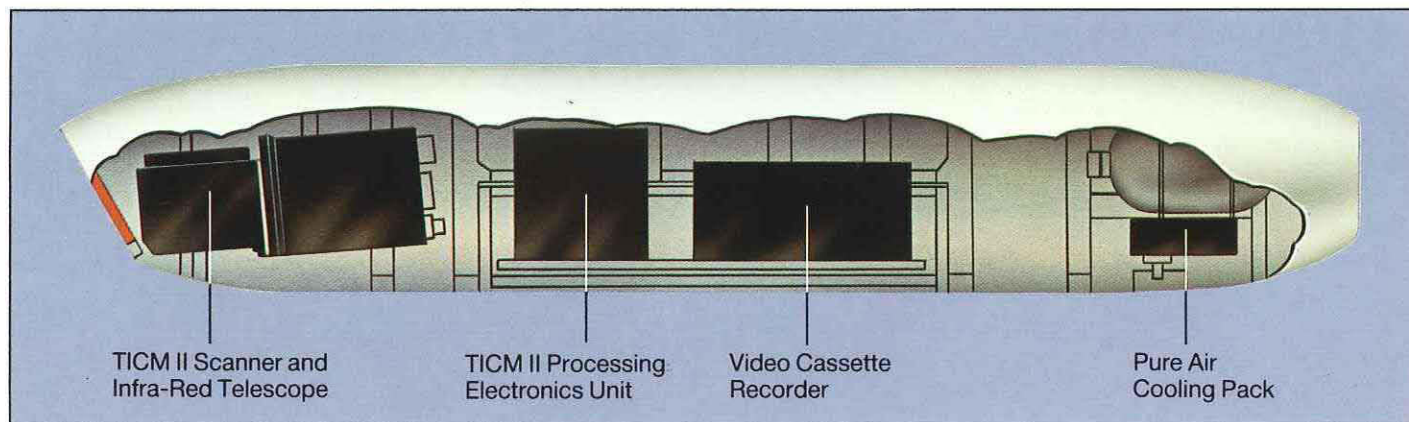
#### Access

Provision is made for the sensor, cooling pack and video cassette recorder to be accessible and serviced from the ground without the need to remove the pod from the aircraft.

#### Pod Manoeuvre Envelope

Sea Level: Up to Mach 1.1	36,000 ft. Mach 1.8
Symmetrical normal accelerations	+ve 7.0g -ve 2.0g
Assymmetrical normal accelerations	+ve 4.0g -ve 2.0g
Lateral acceleration	± 1.5g
Fore/Aft acceleration	± 1.5g
Pitch acceleration	± 4 radians per second squared
Yaw acceleration	± 2 radians per second squared
Rate of roll (deg/sec)	1 50
Length	78 inch (1981 mm)
Diameter	14 inch (355 mm)
AUW	202.5 lbs

# NAV/ATTACK FLIR POD



## Marconi Avionics TICM II FLIR Specification

FLIR Field of View (FOV)	60°×40° (625 line 50 Hz) 60°×32.5° (525 line 60 Hz)	Resolution	2.27 mr (60° FOV)
Telescope and FOV	×3 telescope with 20° FOV alternative telescopes available to match other HUD FOV's	Detector	Mullard SPRITE
Minimum Resolvable Temperature Difference (MRTD):	Typically better than 0.1°C	Operating Temperature Range	-40°C to +55°C
Video Output	CCIR Systems I/EIA-RS170 compatible 625/525 line 50/60 Hz.	Storage Temperature Range	-46°C to 100°C
Video Polarity	White hot or black hot (operator option)	Power	28V dc nominal input power 56W. Designed to meet voltage range. 19-32V dc.
		Environmental	DEFSTAN 07-55, BS3G100

This document gives only a general description of the product(s) and shall not form part of any contract. From time to time changes may be made in the products or in the conditions of supply.

## Marconi Avionics Limited

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