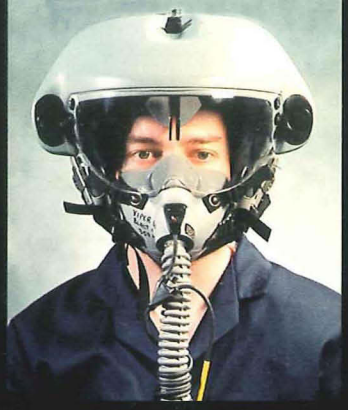
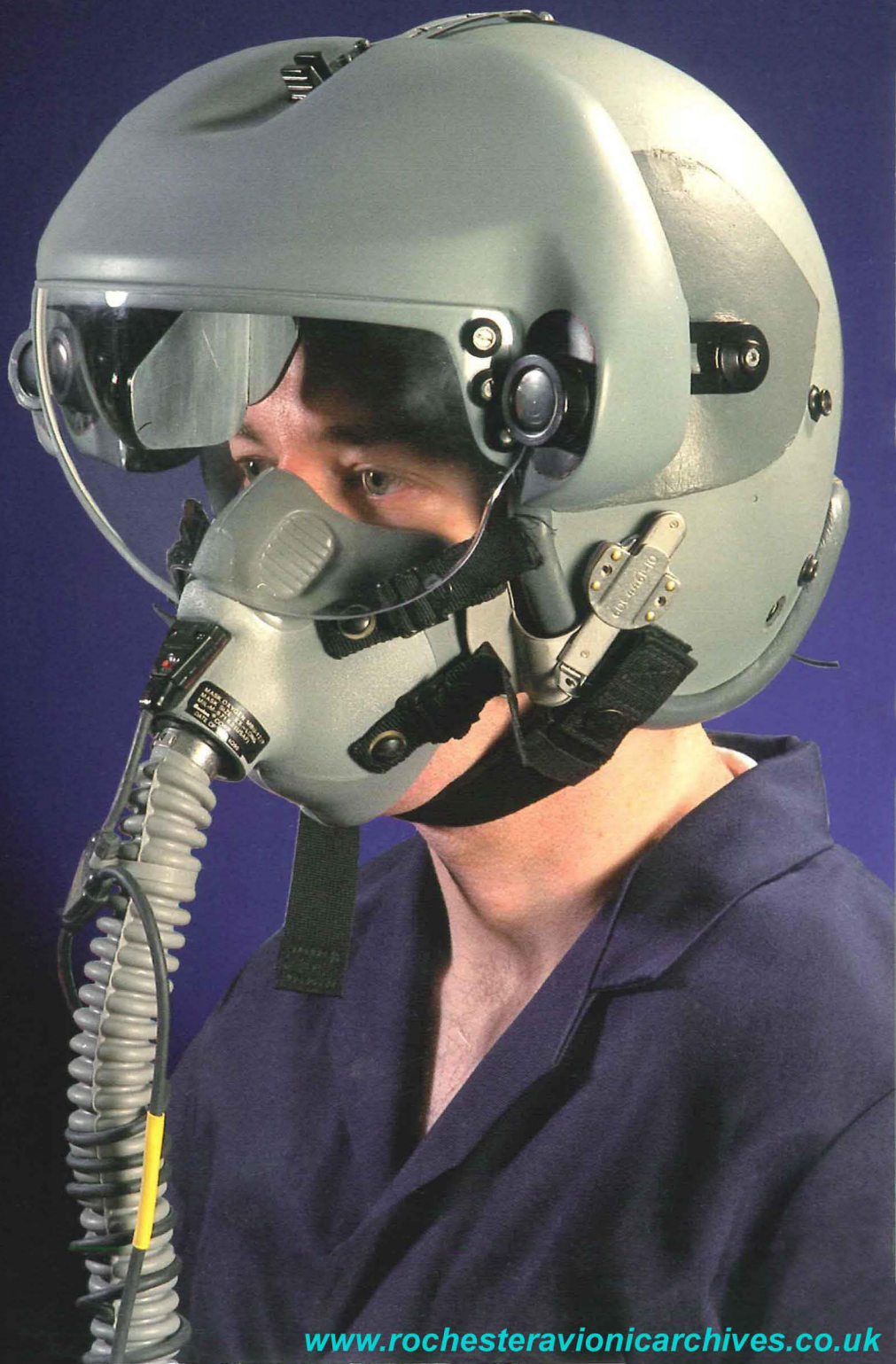
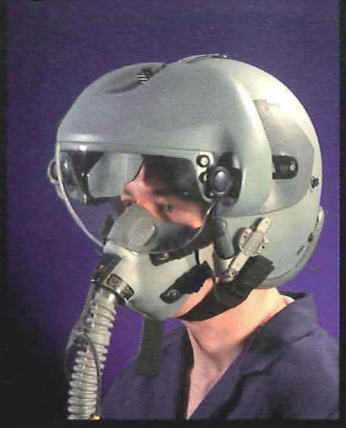


VIPER 3

Pilot's day and night helmet



Delft
Sensor Systems



VIPER 3

Pilot's day and night helmet

Description

VIPER 3 is a Day and Night Helmet with integrated image intensifier tubes and a binocular visor projected Helmet Mounted Display. The lightweight concept is based on the succesfully flight proven VIPER 1 and VIPER 2 concepts. The visor combines and reflects night vision images to the pilot, which are collected by the helmet mounted objectives. Use of a spherical visor means display accuracy is insensitive to visor rotation. The product provides both see-through vision and an extremely high degree of ejection safety. Applications include both helicopter and fixed wing aircrafts without any update or modification of any electronic system. The VIPER 3 module can be fitted to all sizes HGU55/P helmets. The optical relay system can be adjusted for individual interpupillary settings with no changes or modifications to the visor. Since there is no interface to the aircraft, an electronics box is not a part of the system. The system can be upgraded to include a display with symbology.

FEATURES

SEE-THROUGH
- Superposition of night and day image
- Permanent image, even when exposed to sudden illuminations

PERIPHERAL VISION
- Standard spherical aircrew visor with neutral density reflection coating giving no real world coloration

COMFORT
- Optimized centre of gravity location
- Compatible with eye glasses
- Instant use (no need for NVG flip-up/down)
- Module flip-up/down capability for easy put-on/off of helmet
- Uses existing helmet liner

SAFETY
- Ejection safe

Quality

The quality systems applied by Delft Sensor Systems for development and production is in accordance with NATO AQAP-110 and ISO-9001 directives.

TECHNICAL SPECIFICATIONS

Magnification	1x
Field of View (FOV)	
- night image	40°
overlapping L+R	30°
- see-through image	180 x 110°
Exit pupil	12 mm on axis
Resolution at 0.03 lux	better than 1 mrad
Dioptre adjustment	not applicable compatible with eye glasses eyerelief > 75 mm
Interpupillary distance	58 to 72 mm
Tube	SuperGen or Gen III
Transmission	real world > 50%
Weight on HGU55/p	<2.3 kg
Centre of gravity	in "Knox box" (less than 13 mm from COG of human head)

Data are for information only and can be subject to change without prior notice

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