

WNVS2

WIDE FIELD OF VIEW NIGHT VISION SYSTEM



WNVS2 is a very wide field of view, multi-sensor, see-through, binocular day/night head mounted display intended for rotorcraft pilots.

VP **VISION**
PRODUCTS

WIDE FIELD OF VIEW NIGHT VISION SYSTEM

Vision Products' second generation wide field of view day/night vision system (WNVS2) incorporates two high performance night vision sensors, optimally angled to provide a seamless 60° H x 40° V field of view with an effective total resolution of 3000 x 2000 pixels. Two Vision Products 40° x 40° prism eyepieces are arranged with partially overlapping fields of view of 20° in the central region to present the total image of 60° x 40°. Each eyepiece incorporates a 2048 x 2048 full color pixel AMOLED micro-display, taking full advantage of the high-resolution combined sensor images.

WNVS2 provides both daytime and nighttime operation without having to change hardware configurations. Only a single system is needed for around-the-clock operation. The update rate of the displays and night vision sensors has been increased to 90 Hz to reduce overall system latency and improve performance.

The accompanying vision processor corrects for optical and angular distortion before smoothly blending the two sensors' sub-images into discrete and synchronized left and right eye images for presentation. Potentially distracting artifacts that could occur in the overlap region are avoided by blending the edges of the left and right images.

The eyepiece mount is fully adjustable for interpupillary distance, vertical, and fore/aft. A convenient single-hand action stows the eyepiece assembly by swinging it upward, out of view.

Vision Products is a pioneer in the development and deployment of innovative photonics solutions for military and commercial markets. Vision Products personnel have been designing head mounted displays for over 30 years and have built some of the world's most successful HMDs for use in extremely challenging environments.

SPECIFICATIONS	
Parameter	WNVS2
Diagonal Field of View (Total)	72°
Horizontal Field of View (Total)	60°
Vertical Field of View	40°
Display Resolution (Effective Total)	> 3000 x 2000 Pixels
Binocular Overlap	20°
Night Vision Capability	EOTech ISIE™ 19 EBAPS Sensors (x2)
Optical See-through	Yes
Display Refresh Rate	90 Hz
Adjustment	IPD, Vertical, Fore/Aft
Stowable Eyepieces	Flip-up, Single-hand Operation

