



## Night Hawk High Performance Surveillance Platform

PVP Advanced Electro-Optical Systems, Inc. (PVP AEO) is a provider of state-of-the-art imaging systems and components for use in military, aerospace, and commercial applications. One of the key elements of our surveillance and tracking systems is the Night Hawk Surveillance Platform. This high-performance Pan & Tilt gimbal offers the user extraordinary flexibility and ruggedness. It can accommodate a variety of sensors and video tracker configurations and provides continuous operation with no scheduled maintenance, even under extreme conditions. This product combines design elements from our field proven MVSP-200 with the servo motor based drive train from our Commanders Pan Viewer stabilized sight. This results in extremely high pointing accuracy and repeatability, light weight, low power consumption, small size and significant payload capability.

The Night Hawk and selected sensor payloads are controlled over our graphical user interface. The interface includes universal external control functionality, allowing the system to be controlled with any of the currently fielded protocols utilizing an internal user configurable command table. This external interface may be accessed through Ethernet or a local direct serial connection.

The Night Hawk is fully network enabled with all command and control over a single Ethernet interface, which supports wired or wireless connection with a central command station. The system also includes an internal two channel MPEG 4 encoder with a built in video switch to support network-based output of all video signals. Analog video connections are also provided through the single interface connector to support maintenance or local system operation.

The Night Hawk platform is designed to operate in mobile or stationary installations. The standard configuration includes preinstalled wiring and mounting interfaces for an optional gyro based stabilization package. The supplied system firmware includes stabilized rate mode functionality to support this configuration option.

The system operates on 28VDC power and can also be shipped with an optional sealed power supply module to support operation from 110VAC/220VAC. Fully compliant operation with absolute position accuracy can be achieved in less than half a second after power is applied.



Night Hawk Surveillance Platform with Integrated Long Range IR and Visible Sensors



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### Night Hawk Specifications

Weight: 55 lbs  
Payload: 125 lbs  
Position: 360° continuous az. rotation  
180 degree elevation rotation  
Velocity: <0.1 to 100 deg/sec in azimuth  
<0.1 to 60 deg/sec in elevation  
Acceleration: 100 deg/sec<sup>2</sup> in azimuth  
60 deg/sec<sup>2</sup> in elevation  
Position Control: direct drive closed loop servo  
Encoder Resolution: 18 bits  
Encoder Type: absolute electrical  
Position Accuracy: 0.005 degrees  
Motors: direct drive servo  
Azimuth Slip Ring: Dual Stage, 32 @ 2 Amps  
Power: 28VDC, 110 or 220 VAC with external power supply. Internal filtering of 28VDC input and conversion to 48V for motor drivers  
Max Current: 2 Amps (at 48V) per axis at max payload/max sight line rate  
Environment: Outdoor/Marine to MIL-STD-810  
Humidity, Salt Fog, Solar, Blowing Sand/Dust, and Blowing Rain  
Temperature: -40°C to +70°C)

