



## **PUMA™** VNS VISUAL NAVIGATION SYSTEM

AeroVironment's Puma™ VNS is a visual-based navigation system for Puma AE small unmanned aircraft systems (SUAS). Puma VNS enables GPS-denied navigation across GPS-contested environments. The system performs Visual Inertial Odometry (VIO) through a suite of integrated sensors and an onboard compute module to determine the precise location of the aircraft during flight.

Designed to adapt to a continuously changing battlefield, Puma VNS will enable increasingly advanced navigation capabilities, features and functionality through future software and hardware updates. Available as an add-on option for new Puma 3 AE system orders and as a retrofit kit for fielded Puma 2 AE and Puma 3 AE aircraft.

# Visual-based Navigation System for Puma™ AE

PUMA™ VNS

## DISTINCTIONS



» COMPATIBILITY  
Puma™ 2 AE & Puma™ 3 AE

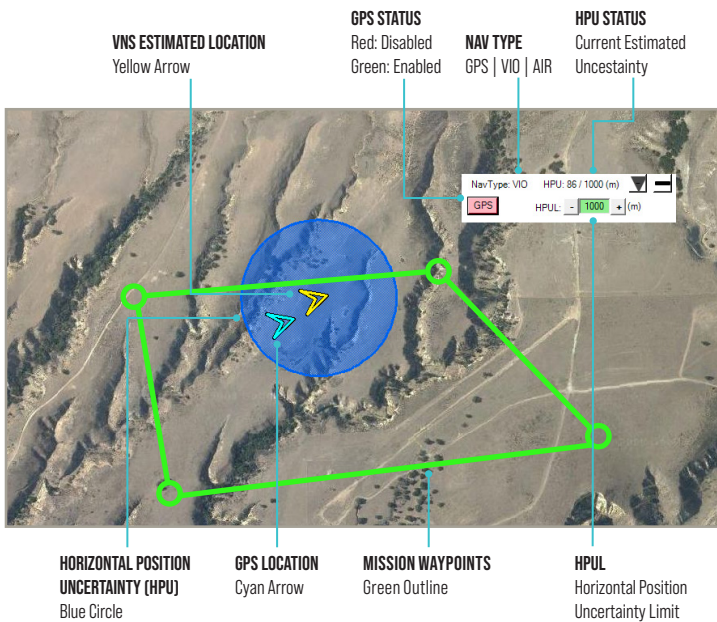


» WEIGHT  
Operational: 1.2 lb (0.54 kg)

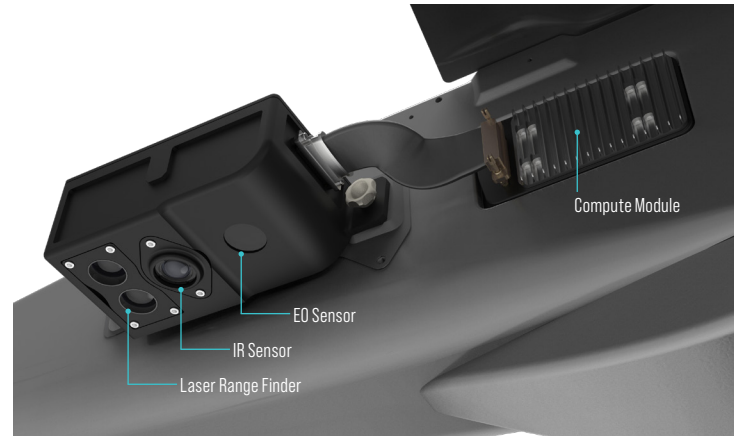
## SPECIFICATIONS

<b>ENDURANCE</b>	2 hr (Puma 3 AE + VNS)
<b>INSTALLATION</b>	Initial factory or depot-level retrofit installation of external mounting pad then plug & play field installation & removal
<b>WEATHERIZATION</b>	All-weather (excluding water landing)

\*Based on sea level mission with standard configuration and conditions



## KIT INCLUDES:



## KEY FEATURES

- » Zero pilot input required for seamless mission continuity through GPS-contested environments
- » Two-piece low-SWAP retrofit kit on existing & new Puma™ AE
- » Performs Visual Inertial Odometry (VIO) through onboard sensors to estimate true location without GPS
- » Enables integration of future autonomy capabilities
- » Minimal performance impact to Puma™ aircraft
- » Compact—Fits into existing Puma™ case for mission packout