

Helmet Mounted Night Vision Devices (HMNVD)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Enhances the warfighter's visual ability and situational awareness while successfully engaging and executing operations day or night, whether in adverse weather or visually obscured battlefield conditions.

DESCRIPTION

Helmet Mounted Night Vision Devices (HMNVD) allow Soldiers to operate in low-visibility conditions and retain use of their hands. These devices include:

AN/PVS-14 Monocular Night Vision Device (MNVD)

The AN/PVS-14 MNVD is a head- or helmet-mounted passive device that amplifies ambient light and very near infrared (IR) energy to enable night operations. The system is designed for use in conjunction with rifle-mounted aiming lights. The AN/PVS-14 incorporates an IR illuminator

with a momentary and continuous-on switching function. IR operation and low-battery indicators are displayed within the Soldier's field of view. The AN/PVS-14 has a lightweight, fully adjustable military head strap that allows for comfortable long-term use. A wide range of optional accessories includes high-magnification lenses and a helmet-mounting bracket. The AN/PVS-14 can be mounted to the M16 Rifle/M4 Carbine receiver rail.

AN/AVS-6 Aviator's Night Vision Imaging System (ANVIS)

The AN/AVS-6 ANVIS is a third-generation, helmet-mounted, direct-view, image intensification device that enables aviators to operate more effectively and safely during low-light and degraded battlefield conditions. The low-light sensitivity represents a 35 to 40 percent improvement over the earliest ANVIS. Additionally, the gated power supply enables operation at significantly higher light levels than any of the previous designs.

The AN/PSQ-20 Enhanced Night Vision Goggle (ENVG)

The AN/PSQ-20 ENVG gives Soldiers new capabilities over existing night vision and thermal devices by incorporating image intensification and long-wave infrared (thermal) sensors into a single, helmet-mounted passive device. The ENVG combines the visual detail in low light conditions that is provided by image intensification with the thermal sensor's ability to see through fog, dust, and smoke that obscure vision. This thermal capability makes the ENVG, unlike earlier night vision devices, useful during the day as well as at night. The ENVG allows Soldiers to rapidly detect and engage targets because it permits use of existing rifle-mounted aiming lights.

Several engineering enhancements to the ENVG improve its fit and function. For example, putting the battery pack on the rear of the helmet provides better balance and increases comfort as well as stability. The system is also designed to work with existing ballistic eye protection. In addition, the system is now more compact and easier to stow when not in use, which enhances

the Soldier's mobility. Another benefit of the ENVG is its compatibility with aiming lasers currently in use, allowing for a fully integrated system of thermal, laser and image intensification.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- **FY10:** Fielded to units supporting Operation Enduring Freedom and Operation Iraqi Freedom
- **FY10:** Production and fielding
- **FY10:** Retrofit fielded units with the objective lens (AN/AVS-6)
- **FY10:** New production contract with multiple vendors (AN/PSQ-20)

PROJECTED ACTIVITIES

- **FY11:** Production and fielding in accordance with Headquarters Department of the Army G8 priorities

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

Helmet Mounted Night Vision Devices (HMNVD)

FOREIGN MILITARY SALES

United Kingdom, Yemen

CONTRACTORS

AN/PVS-14:

ITT (Roanoke, VA)

L-3 Communications Electro-Optic Systems (Tempe, AZ; Garland, TX)

AN/AVS-6(V)3 ANVIS:

ITT (Roanoke, VA)

AN/PSQ-20:

ITT (Roanoke, VA)



AN/PVS-14 Monocular Night Vision Device (MNVD)



The AN/PSQ-20 Enhanced Night Vision Goggle (ENVG)

