# Driver's Vision Enhancer (DVE) AN/VAS-5

Mobility means survivability. Give your troops the tactical advantage they need – **Driver's Vision Enhancer.**

## Benefits

- **Day/night 24-hour operation capability – "go" versus "no-go" mission enabler**
- **Passive, state-of-the-art, reliable uncooled thermal technology – does not give the enemy your location due to illuminators or IR lights**
- **The ability to see through dust, smoke, and other battlefield obscurants**
- **Enhanced situational awareness, silent watch operation capability**
- **Modular design allows for easy adaptation into many vehicles including:**

| | |
|---|---|
| **– M1A1** | **– HMMWV** |
| **– LAV** | **– HEMTT** |
| **– AAV** | **– FMTV** |
| **– Bradley** | **– PLS** |
| **– M113** | **– HETS** |

## Combat-Proven Need for DVE

The Driver's Vision Enhancer (DVE) was developed in response to a problem encountered during Desert Storm – the inability to maneuver safely at night and in "dirty" battlefield conditions. The DVE provides drivers of both tactical wheeled and combat vehicles with a 24-hour maneuvering capability. Because the DVE is a thermal system, drivers can see through such obscurants as dust, smoke, haze, and darkness. The DVE gives land forces the ability to maintain continuous mission operations while providing a safe driving environment through enhanced situational awareness.

## Multi-Platform Application

DVE was designed to readily adapt to various combat and tactical wheeled vehicles. This design is driven by the need to give everyone the same view of the battlefield. The modular design of the sensor and display means easy integration into multiple vehicle applications. The only unique item for each vehicle is the integration bracket for the host vehicle. The logistics burden is eased by the commonality that exists for the sensor and display across all vehicle applications.

## Improved Mobility Leads to Survivability

Move when others can't – and do it undetected! The DVE is a thermal system that has certain advantages over image - intensified systems. It operates in total darkness without the need for illuminators and will not shut down or "bloom" in bright light conditions often encountered on the battlefield.

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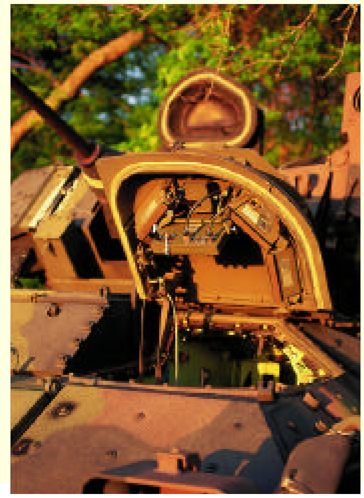
Fielded to USMC M1A1, LAV, and AAV.  U.S. Army fielding includes M56 (HMMWV), M58 (M113), and Bradley.



Integration of  DVE into combat vehicles involves a simple one-for-one replacement of the forward prism block.  Typically, vehicle modification is not required.

DVE provides day and night capability.  The resolution of DVE is more than adequate to see road hazards, other vehicles, and personnel.

Even daytime driving using standard vision blocks can be difficult. In a desert environment DVE clearly points the driver along the trail and allows him to see through dust kicked up by lead vehicles.

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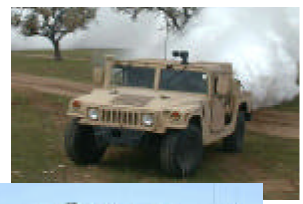
### Specification

**Physical Characteristics**

| | Sensor | | Display | Pan/Tilt Module |
|---|---|---|---|---|
| | Combat Vehicle (CV) | Tactical Wheeled Vehicle (TWV) | Both CV and TWV | TWV Only |
| Dimensions | | | | |
| Length (in.) | 12.44 cm (4.9 in) | 10.92 cm (4.3 in) | 10.16 cm (4 in) | 38.10 cm (15 in) |
| Width (in.) | 13.46 cm (5.3 in) | 12.7 cm (5 in) | 26.67 cm (10.5 in) | 30.48 cm (12 in) |
| Height (in.) | 17.52 cm (6.9 in) | 12.44 cm (4.9 in) | 22.86 cm (9 in) | 50.80 cm (20 in) |
| Weight (lb) | 1.27 kg (2.8 lb) | 0.91kg (2 lb) | 3.17 kg (7 lb) | 8.62 kg (19 lb) |

| | |
|---|---|
| **Performance** | |
| Range (detection) | |
| Standing man | 110 m |
| Static vehicle | 1200 m |
| Field of view | 30 deg vertical x 40 deg horizontal |
| Field of regard | |
| Combat vehicle | ± –50 deg azimuth and +25/–15 deg elevation |
| Tactical wheeled | ± –180 deg azimuth and +35/–60 deg elevation |
| **Operational** | |
| Reliability | MTBF: ~700 hrs |
| Environments | |
| Operating temp | –37° to +49°C |
| Vibration | Combat vehicle |
| Shock | Weapon firing shock |
| Waterproof | Humidity, immersion, rain |
| Maintenance | Two-level logistics |
| **Interfaces** | |
| Power requirements | 16 to 32 VDC, 24 VDC nominal |
| Output | SMPTE 170 on 10.4 in. flat panel display (640 x 480 active matrix LCD) |
| | Digital interface:  RS-232/ RS-422 |
| | VCR compatibility:  all standard NTSC formats |
| **Technology** | |
| Detector | 320 x 240 staring, 8-12 µm long wave infrared |



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