

# AMERICAN EAGLES

United Vision Solutions





United Vision Solutions, Co.

COMMERCIAL-IN-CONFIDENCE



# HomeLand Security Products & Solutions

# Eagle Vision EV3000-D IR

Dual camera system for 24/7 surveillance  
Stainless Steel 316L enclosure and Pan/Tilt

# Eagle Vision

24/7 security system

Day - Night - Dark

## A World without Darkness

**EAGLE VISION**, A cutting-edge night  
surveillance camera for High Security Applications

# Day-Night Long range Surveillance Camera system

## Eagle Vision Day/Night Cameras

### EV-3000

- A series of high resolution cameras meeting the imaging needs of all light levels With High performance zoom lenses made for middle and long range applications



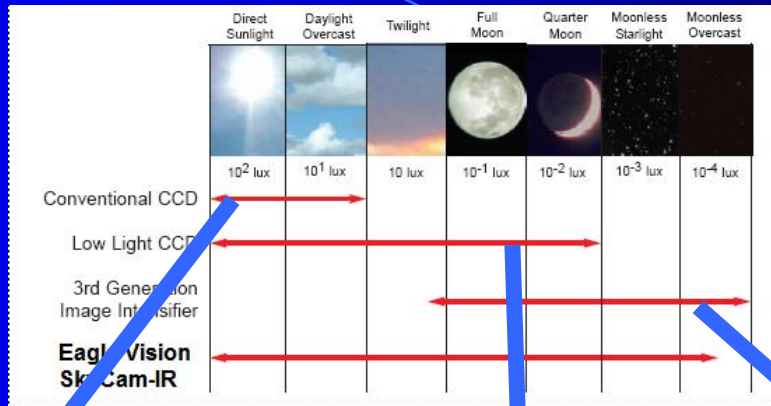
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# What Is Eagle Vision Camera System?



At day time color sensor is active  
2 km with 2x1500mm



At night-time auto switch to night sensor with sensitivity .00006 lux  
Image at 8:33 pm



User can active thermal sensor anytime using trigger button on the screen

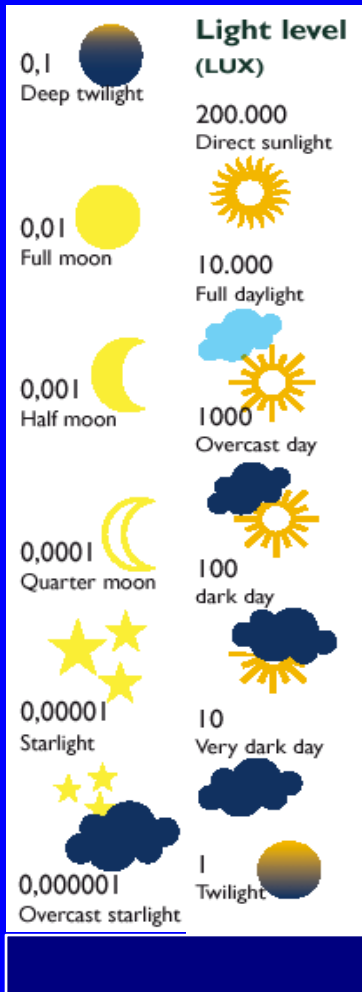
# Day/Night EV-3000 dual vision

Dual Sensors: Color Video Camera and IR Thermal Camera for Night Vision



High Resolution color video camera  
Long Range Lenses 1000mm with 2X  
IR Thermal Camera night Vision Sensor  
Rugged Housing, Sealed and Pressurized  
Control Board for Pan/Tilt/Zoom  
Mil-Spec Connectors  
RS232, RS485, and TCP/IP interface

EV-3000 cameras are a series of Dual Optics Sensors cameras providing high image quality, ultra low-light sensitivity at night and high color video resolution at day. The whole family performs extremely well in all environmental conditions. A wide spectral sensitivity range facilitates perfect images to be produced no matter whether the user operates on water, snow, desert, rocky and barren land, and even where the light conditions are down to heavily overcast starlight.



## **Key Features :**

24/7 Long Range Surveillance System

Color At Day Time

Ultra Low Sensitivity EM-CCD at night time

Thermal camera for total dark 0 lux

Detection range up to 20 km

Micro-step target tracking

Motion Detector and Event Trigger

Digital Video recording with Date/Time stamp

Analogue and Digital Display

# System Modules :

- Day/Night Camera.
- Thermal Camera.
- Micro-Step Pan/tilt unit.
- Video Stabilizer
- Video decoding.
- Power Supply .
- Software Management System.
- Target Tracking module.



# System Highlights

## System Highlights

### Thermal Imager Tri-FOV

- 3-5 micron InSb detector
- 640X480 format
- DFOV
- 100/500 mm lenses

### Pan/Tilt resolution

High performance, brushless, maintenance-free step motors provide very precise, extremely effective motion control with preset and 0-360 degree endless rotation

### Day/Night Camera

- 1/2" High-Resolution EMCCD
- 0.00025 Lux Minimum Illumination
- Lens 10-500mm / 20-1000mm
- Reproduces full colour, full motion images in starlight conditions

### Sensor Platform

- Heavy Duty, Stabilized Pan/Tilt
- Stainless Steel Enclosure,
- Explosive-proof

This product can be used where the explosive gas can be produced such as petroleum refining factory, Petro chemistry, Chemical Synthesis Plant and Power plant and it is apt to be corroded in salt such as shore or ship due to its material Stainless Steel 316 against corrosion.

# System Highlights

## REAL-TIME TARGET TRACKING

Enables end-user to track an object in motion, six tracking algorithms :

- 1) Dynamic Centroid,
- 2) Hottest Spot Tracking,
- 3) Dynamic Correlation,
- 4) Motion Detection,
- 5) Threshold tracking,
- 6) Edge Tracking.

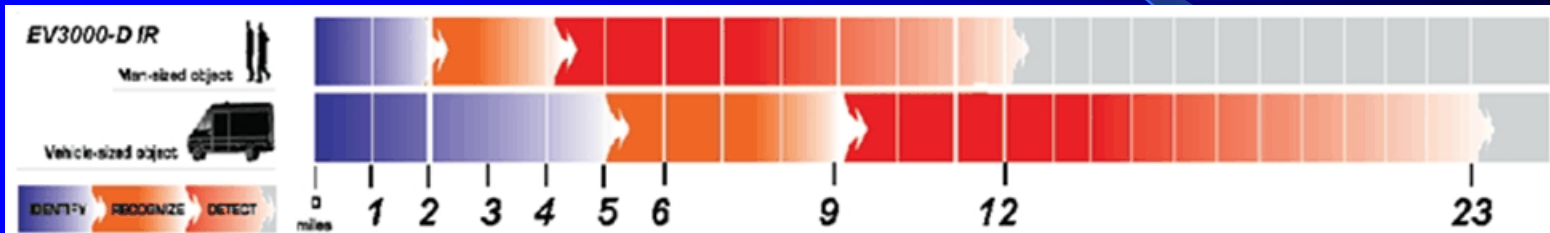
## Video Stabilizer

- Digital Real Time Video Stabilization
- Sharp details for high quality video

## CCTV software with TCP/IP

- Full control of Thermal / Day-Night / Pan/Tilt
- Using standard Protocol Pelco-D
- SDK software library for developing Control Software locally

# EV3000 Range Chart



Detection	Human at 12 miles
	Truck at 23 miles
Recognition	Human at 4 miles
	Truck at 9 miles
Identify	Human at 2 miles
	Truck at 5 miles

# Day/Night Camera Highlights

A new 1/2 inch EM-CCD with electron multiplication is used to achieve exceptional sensitivity.

Color in full motion mode: *0.0009 lux*

Color Accumulation mode: *0.000015 lux*

Monochrome in full motion mode: *0.00005 lux*

Monochrome Accumulation mode: *0.0000008 lux*

Typical high sensitivity cameras use an Image Intensifier Tube that is subject to burn in, afterimage (lag) and short life span. These problems are eliminated with the use of the EM-CCD.



*Flight trials compared the EMCCD with infrared modules under starlight conditions.*

# EMCCD Ultra Low Light CCD Color Camera



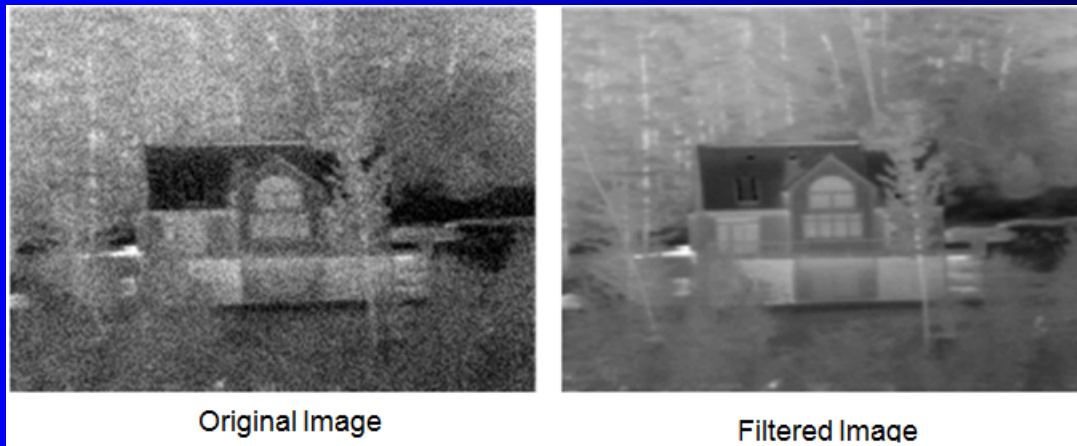
Reproduces full color, full motion images in starlight conditions

# Thermal Camera Highlights

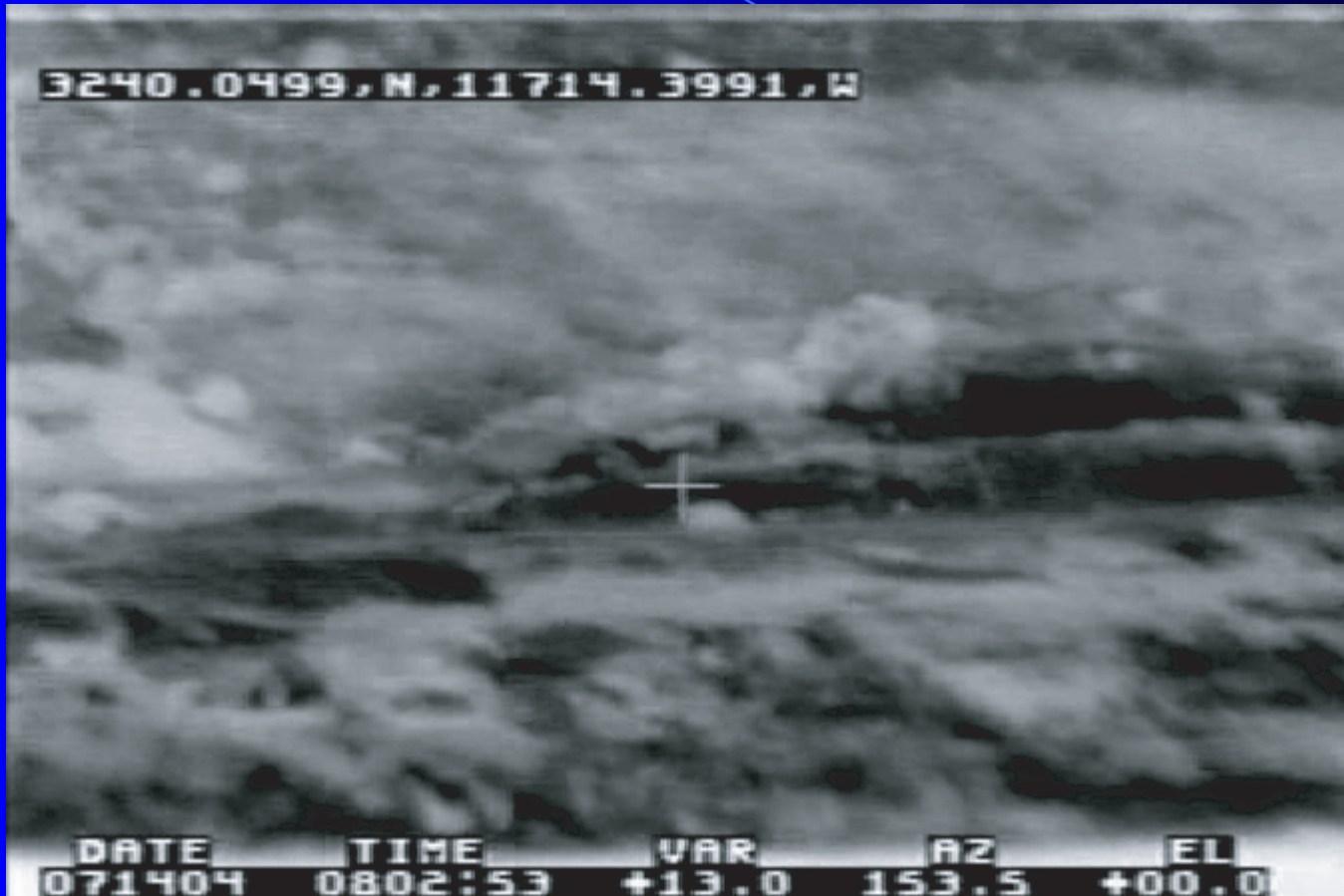
thermal imaging system built around a highly sensitive mid-wave infrared detector. The dual field-of-view telescope allows the system to track vehicles at ranges exceeding 20 km.

Sensor Type	(InSb) with resolution 640x480
Pixel Pitch	15 $\mu$ m
Spectral Range	3.4 - 5.0 $\mu$ m
Lenses	100-500mm

Unmatched image quality with Digital Detail Enhancement (DDE)



## Long Range Thermal Camera 20+ KM detection



Truck at 22km

# Lenses Highlights

24 hours surveillance for super long distance

Refocusing is not required on all focal length position

10-500mm/20-1000mm with 2x Extender

day & night with Super-Apochromat

High resolution

Focal Length 10 - 500 mm / 20 - 1000 mm (2x Ext.)

Angle Field of View

W : 35.5 x 27.0 / 35.5 x 27.0 (2x Ext.)

T : 0.7 x 0.6 / 0.4 x 0.3 (2x Ext.)

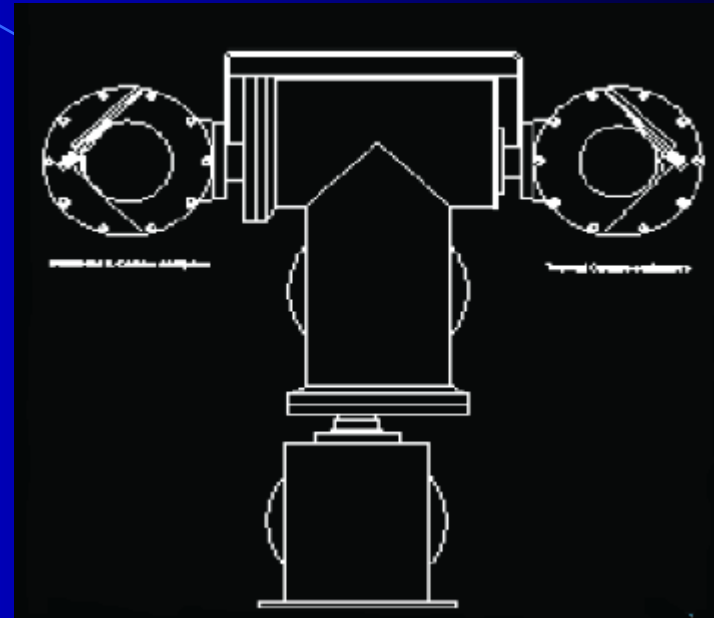
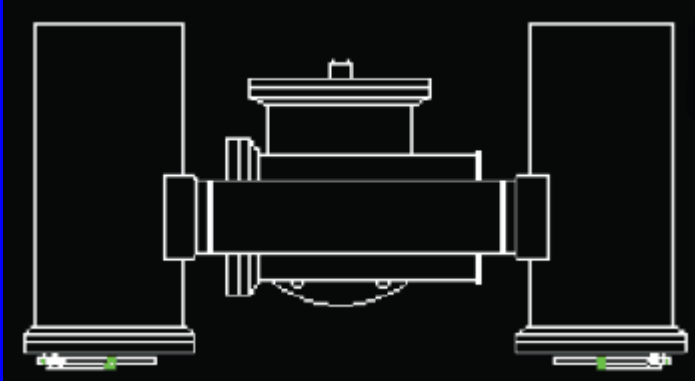


# Pan/Tilt Highlights

- Rotating angle Pan  $0^{\circ}$ ~Endless/ Tilt  $-70^{\circ}$  ~  $+20^{\circ} \pm 5^{\circ}$
- Rotating speed Pan : $0.1^{\circ}$ ~  $25^{\circ}/\text{sec}$ , Tilt : $0.1^{\circ}$ ~  $20^{\circ}/\text{sec}$
- Motor Step motor
- Temperature  $-25^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$
- Preset 000~127(128 Presets)
- Interface RS-485
- Receiver address 000~255(256 Addresses)

EV3000 can be used where the explosive gas can be produced such as petroleum refining factory, Petro chemistry, Chemical Synthesis Plant and Power plant and it is apt to be corroded in salt such as shore or ship due to its material Stainless Steel 316 against corrosion.

## Forget rust and salt air corrosion



### Heavy Duty Stainless Steel Enclosure, Stabilized Pan/Tilt Option (**EXPLOSION PROOF Exd IIC T5**)

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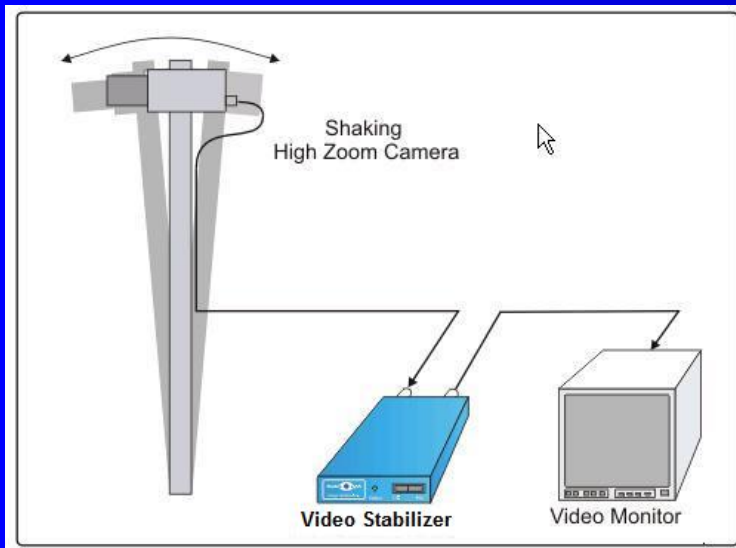
# Video Stabilizer



Raw shaky video from Pole mounted camera



Steadied video coming from Video Stabilizer



- ◆ **Applications:**

- > Town centre CCTV
- > Cross-border monitoring
- > Long-range covert surveillance
- > Mobile recording
- > Video post-processing

# Video Server / Software

- View and record up to 50 cameras
- Live view of up to 16 cameras simultaneously in 4, 6, 9, 10, 13, 16-split views, full screen 4, 9, 16-split view
- the viewer perceives full motion up to 30 fps
- video Scheduled and event driven recording and a powerful recording search
- High quality recordings in H.264, MPEG-4 and Motion JPEG
- Control of PTZ and EV3000-S camera functions, switch camera between day and night modes, increase night vision sensitivity, control wiper and washer
- Remote viewing and control
- Preset positions and Guard Tour functions
- Multilingual support for English, French, Italian, German and Spanish

# Video Server / Software

## Minimum system requirements

Windows Vista Business, XP Professional, 2008 Server, 2003 Server, Windows Media Player 11 or later  
Always use the latest service packs  
Microsoft .NET runtime environment (included in installation package)

## Minimum computer requirements –client

CPU: Intel P4 or higher, 2 GHz (Intel Core 2 Quad recommended for larger systems)  
RAM: 1 GB (4 GB recommended for larger systems)  
Screen: 1024x768  
Graphics card with DirectX 9.0c or later and Real video memory of 256 MB or more, use latest graphics card driver

## Minimum computer requirements – server

CPU: Intel P4 or higher, 2 GHz (Intel Xeon recommended for larger systems)  
1 GB RAM (4 GB recommended for larger systems)

## Recommended network

100 Megabit network (Gigabit network recommended for larger systems)

## Recommended hard disk configuration

At 30 fps in VGA: up to 15 cameras per hard disk

# Special Functions

- Motion Detection :  
Motion can be detected by Camera Station. Recording only when motion is detected will save hard disk space compared to other options such as recording continuously. The advantage of having the camera trigger an alarm or recording is that it takes the processing load off the server.
- Target Tracking:  
Real time tracking of selected targets using a choice of high performance algorithms.
- Video Decoding:  
The Video Decoder is ideal when there is a need to display live video on an analog monitor as wall-screen

**The Video Decoder can be** configured to keep track of multiple events continuously, as well as to switch between video sources at given time intervals. With auto-connect on alarm for example when motion is detected, video can be displayed instantly, allowing the operator to take appropriate action. Large areas can be monitored anywhere the network goes, by switching between up to 128 different video sources. The Video Decoder is ideal when there is a need to display live video on an analog monitor,

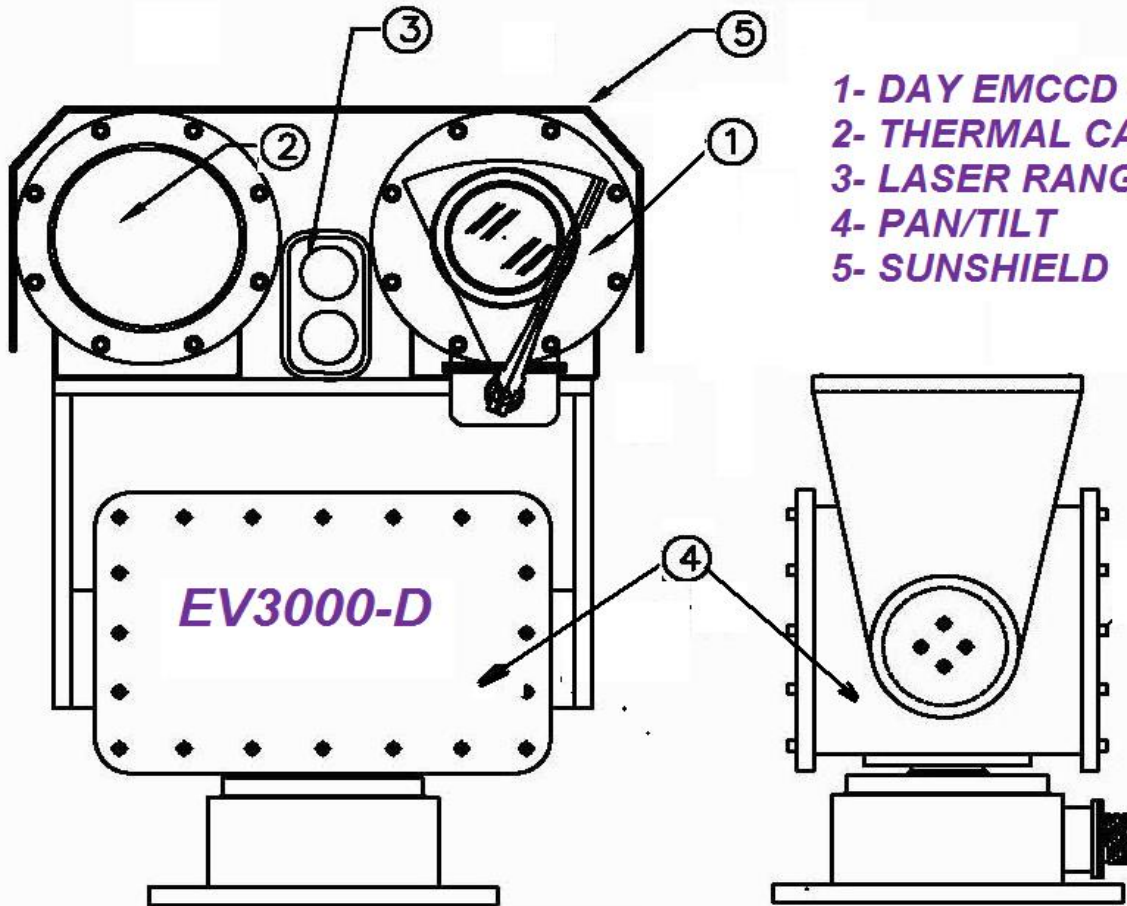


New Version 2009

EV3000-D2000

IR-LRF-EMCCD

EAGLE VISION EV3000-D



- 1- DAY EMCCD CAMERA
- 2- THERMAL CAMERA
- 3- LASER RANGEFINDER
- 4- PAN/TILT
- 5- SUNSHIELD



New Version

EV3000-D

[www.longrangecamera.com](http://www.longrangecamera.com)

*Uncompromising Performance in Forward Observation. The Ultra-Long Range Multi-Sensor System offers the high-performance EMCCD Camera with 1000/2000mm lenses and Thermal Imager 640x480 resolution with 100/500mm IR lens. Laser rangefinder upto 20km. The ruggedized Stainless Steel enclosure of the assembly is designed to be used in extreme harsh environments.*

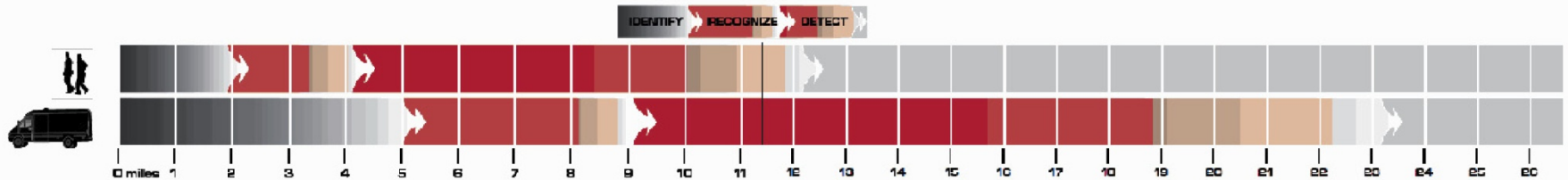
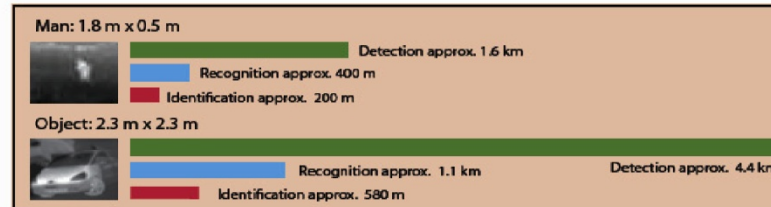




**EV3000 with uncooled thermal IR 100mm and EMCCD 300mm for day/dark/night 24/7**

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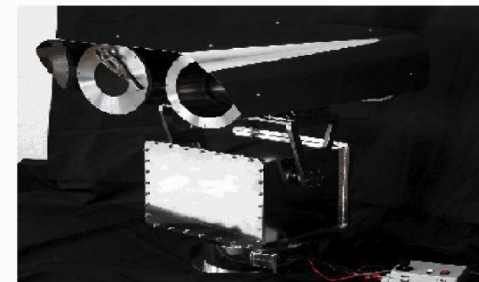


**EV3000 with cooled thermal IR camera 500mm, and EMCCD 500/1000mm dav camera**

*EV3000 use thermal energy to penetrate the atmospheric obscurants better and farther than visible light, allowing you to see what's out there through haze, smoke, dust and even light fog. Day and night, through good weather and bad, close up and far away*



**Thermal IR , EMCCD high resolution  
Stainless Steel Enclosure and Pan/Tilt  
Pelco-D protocol, power 110/220VAC  
Wiper, Washer, and Sunshield  
Anti-rust, anti-salt and anti-corrosion  
TCP/IP Interface, RS485 serial control  
Video Server Axis, and Video Stabilizer**







**United  
Vision  
Solutions**

**UVS**

Long Range Day Night Camera  
CCTV Surveillance Systems



# Customer

# Applications

*U.S. Army Corps of Engineers*

US Air Force

US coast Guard

US central Command

NASA

Johns Hopkins University

CA Police department

ITT

Mexico Navy

Mexico Oil Company

Finland Navy

Military Bases

Government Buildings

Oil Refineries

Under Ground Garages

Nuclear Power Plants

Border Check Points

Coast Guard

Embassies

Prisons

Courthouses / Banks / Mints

Airports / Ports

Munitions Plants

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