

EVT-035A/EVT-035N

ELECTRO-OPTICAL MULTI-SENSOR GYRO-STABILIZED SYSTEM



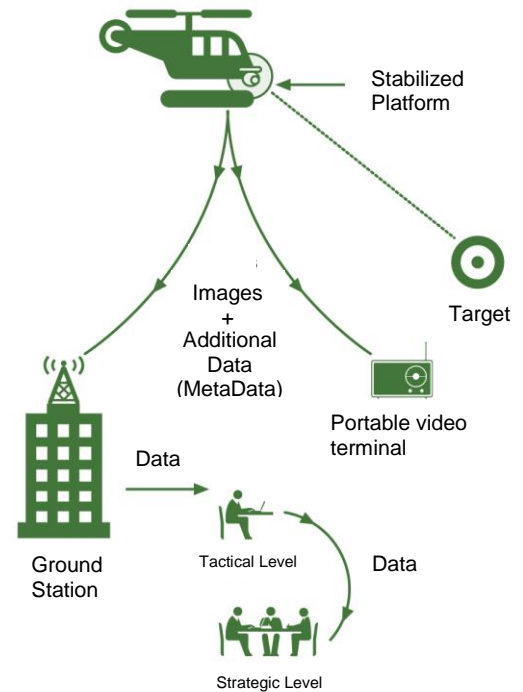
The electro-optical systems EVT-035A and EVT-035N were designed to equip fixed and rotary wing aircraft, vessels and ground vehicles with day and night full motion video acquisition in visible and thermal IR spectrum, plus on-board video storage and dissemination capabilities. The system features include automatic target tracking, estimation of target geographical coordinates, measurement of target distance, and laser illumination. These gyro-stabilized systems are hardened for operation in extreme

environments, and are equipped with one panoramic and one spotter full HD sensors in visible spectrum, one thermal infrared sensor, one laser rangefinder and one laser illuminator. Additionally, the system can be supplied with an air-to-ground communications link and the corresponding ground station for dissemination purposes.

The EVT-035A and EVT-035N systems are essential tools for missions like surveillance, public safety, and search & rescue.

GENERAL DESCRIPTION

The EVT-035A and EVT-035N systems were developed by INVAP to fulfill the operational requirements of Defense and Homeland Security users. The stabilized platforms were designed to accommodate multiple sensors and keep them stable against the movements of the aircraft in flight, the ship in navigation or the vehicle in motion. The cameras were selected according to the detection, recognition and identification requirements posed by the different missions. The command and presentation unit implements the graphical user interface and the controls to aim at the target, operate the different sensors, engage the autotracking subsystem, visualize the images and their associated data, control the on-board video recorder and control the air-to-ground communications link. The combined system position and attitude data, either obtained from the system's own GPS and inertial sensors, or obtained from existing platform sensors, are used to estimate the target geographical coordinates. This estimation can be improved by measuring the distance to the target using the laser rangefinder. Optionally, the system can be integrated with an air-to-ground communications link to stream the images and metadata to the ground station and the portable video terminal in a secure and simultaneous manner.

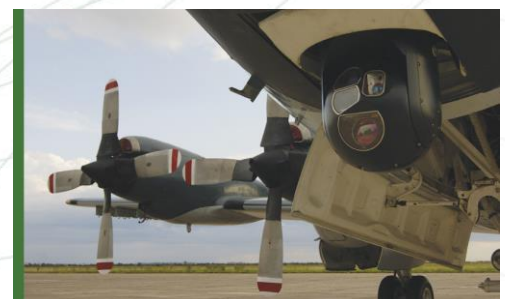


TECHNICAL SPECIFICATION

- **Stabilized Platform:**
 - Stabilization: five active axes, 10 micro-radians.
 - Continuous 360° Pan.
 - Tilt coverage between +30° and -120°.
- **Panoramic Sensor - Visible spectrum**
 - Resolution: Full HD, 1920 x 1080 pixels.
 - FoV 59.5° to 2.1°(Optical). Optical Zoom 30x, Digital 12x.
- **Spotter Sensor – Visible spectrum:**
 - FoV 20° to 0,7° (Optical). Optical Zoom 30x, Digital 12x.
- **Infrared Sensor:**
 - Infrared Spectral Band: MWIR 3,6 to 4,9 μm.
 - Resolution 640x512 pixels
 - FoV 35,1° to 1,8 (Optical). Optical Zoom 20x,
- **Autotracking with Visible or Infrared Sensor.**
- **Merge between visible and IR spectrum video (optional).**
- **10+ days of on-board continuous recording of video and metadata.**
- **Encrypted data downlink (Optional):**
 - Digital link.
 - Up to 100km from the ground station, and up to 5km from the portable video terminal.
- **Laser range finder:**
 - Maximum range: 20km.
 - Resolution: 2.5 m.
- **Laser Illuminator:**
 - Optical Power: 1,8W.
 - Wavelength: 860nm.



EVT-035N installed in ARA Almirante IRIZAR Icebreaker



EVT-035A installed in ARA P3 Orion maritime patrol aircraft



INVAP's headquarters are located in San Carlos de Bariloche at the foot of the Patagonian Andes. The company has offices in several cities throughout Argentina and operates in various countries.

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