MS-110 / MQ-9 AIRBORNE RECONNAISSANCE

ADVANCED, LONG-RANGE, WIDE-AREA, DAY/NIGHT RECONNAISSANCE

Improve your intelligence advantage

The MS-110 represents the next generation of the Collins Aerospace airborne optical reconnaissance systems, providing wide-area, long-range, multi-spectral imagery coverage – day or night. The system adds significant capability to unmanned aerial vehicles (UAVs) by offering:

- Increased survivability by increasing UAV stand-off imaging ranges

- Multispectral imaging in multiple visual and IR bands

- Common ground coverage of all bands

- Significantly improved area coverage when compared to legacy turreted systems

- Higher image quality (NIIRS)

- Imagery exploitation software designed to rapidly leverage unique MS-110 composite imagery features

- Shortened sensor-to shooter-timelines through rapid exploitation of multispectral imagery via high-speed, near-real-time data link capability

In addition to MQ-9 class MALE UAVs, the sensor is compatible with carriage on advanced fighters (US F-16, F-15 and F/A-18, as well as Gripen and other fast jet platforms), C-130s, MPA class aircraft, and ISR business jets.

For UAV applications, the sensor and supporting avionics/systems are housed in a lightweight pod. MS-110 imagery can be transmitted via most standard UAV data transmission systems.

KEY FEATURES & BENEFITS

- Long-range, wide-area, passive target detection and identification with simultaneous "track while scan" targeting capabilities

- SCI-Edge Automatic Target Classification/machine learning feature enables rapid analysis and decision-making

- Allows for wide-area search coincident with traditional turret system target tracking

- Target-detecting capability in smoke, haze, clutter and camouflage

- Capable of operations in medium- and high-threat environments due to stand-off imaging

- Real-time data link for actionable intelligence

- Maritime and littoral surveillance

- Combat SAR and counter narcotics operations capable

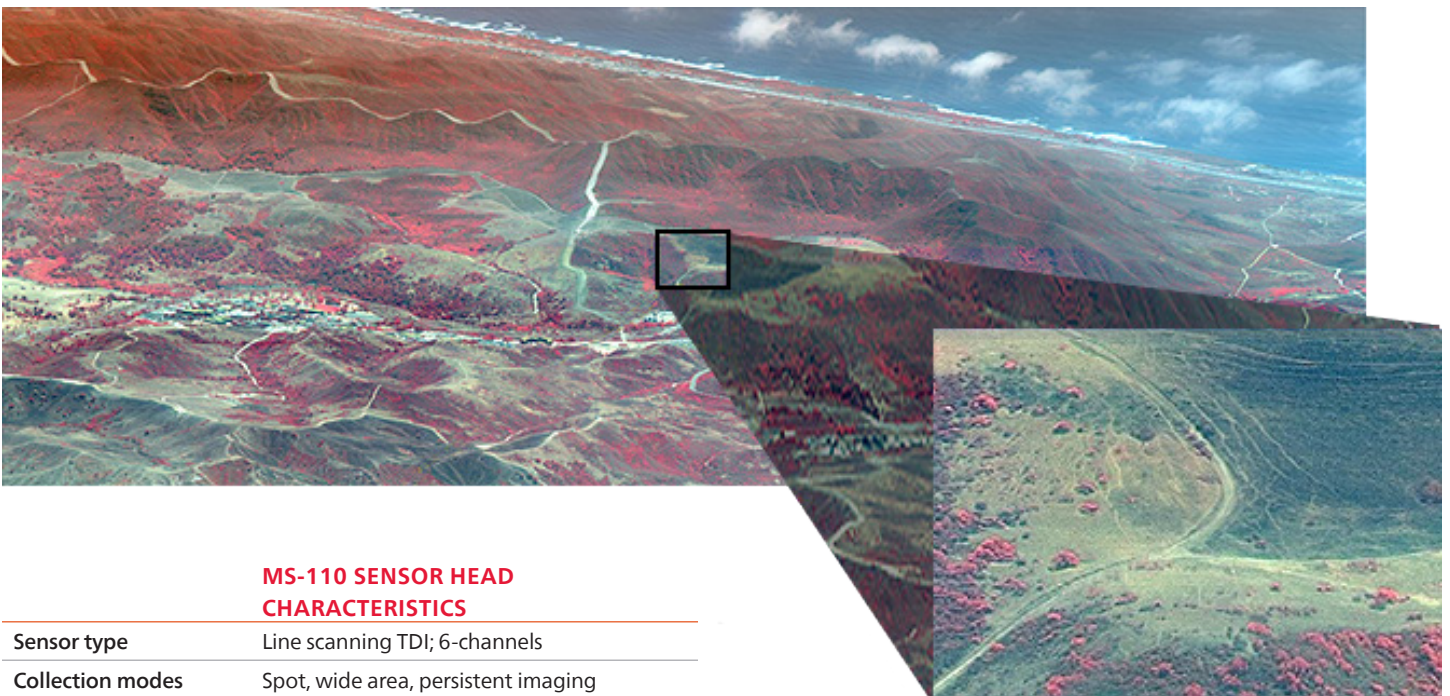- Supports humanitarian assistance planning and activities

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Additional multispectral advantages for UAVs

The MS-110 stand-off capability increases UAV survivability, enabling the end-user to see "true color" and to also discriminate between subtle features of a target that a traditional gray scale image cannot. Most important, by combining select three bands into certain composite views, analysts gain unique knowledge of individual scenes, enabling important military-related analytical applications.

Collins MS-110 multispectral airborne reconnaissance system is an important advancement over the third-generation DB-110 and other EO/IR systems, providing new multispectral detection capabilities, improved image quality, and increased coverage in a SWaP configuration that is compatible with UAVs such as the MQ-9 Reaper.
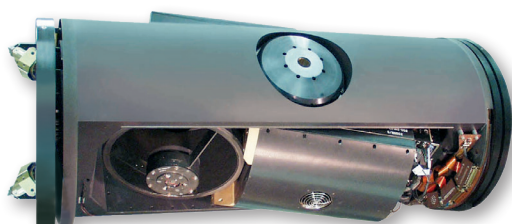
The simultaneous multi-band imagery collection provided by the MS-110 is a battlefield discriminator that can facilitate enhanced target discrimination and change detection while defeating enemy camouflage, concealment and deception (CC&D), as well as providing detailed maritime and littoral surveillance.

As part of an end-to-end ISR system, the Collins Aerospace SCI-Toolset suite of imagery exploitation software tools is specially configured to gain maximum benefit from the MS-110's unique capabilities. The SCI-Edge component of the toolset allows for rapid target classification over wide areas of imagery coverage.
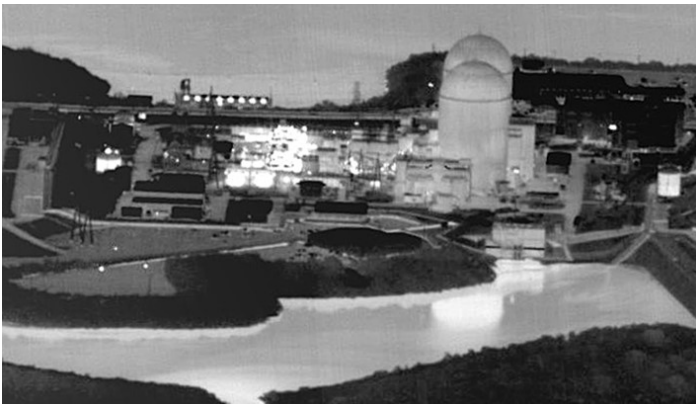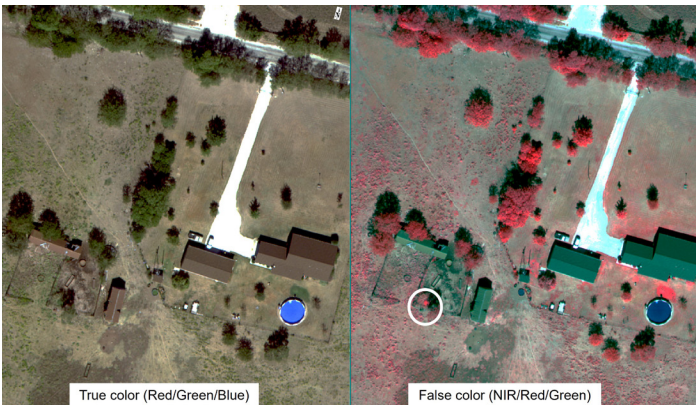
MS-110 SENSOR HEAD CHARACTERISTICS	
Sensor type	Line scanning TDI; 6-channels
Collection modes	Spot, wide area, persistent imaging
Field of regard	Roll ±90°/Pitch ±20° max
Power	340 W
Length	54.5" (±20° pitch)
Diameter	26.2" (±20° pitch)
Sensor head weight	346 lbs

Specifications subject to change without notice.

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True color (Red/Green/Blue)

False color (NIR/Red/Green)

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