



OPENSIGHT-mc
Mission Console



Elevating Airborne Missions: OPENSIGHT-mc integrated into MANTIS Mission Computer for Enhanced Situational Awareness

Summary

Gain better control of operations, situational awareness, intelligence, and security for optimal decision-making. OPENSIGHT-mc, the real-time augmented reality engine developed by FlySight, is now integrated into the MANTIS Mission Computer, manufactured by Viewpoint Systems. This integration enhances the human cognitive capacity of the operator, ensuring customizable and extensible integration tailored to specific applications in various scenarios. It provides a significant boost to airborne ISR, search and rescue activities, marine missions. Benefit from this new integration and bring your operation to the next level: with its Open Code approach the OPENSIGHT-mc is ready to unravel new opportunities for your missions.

VIEWPOINT
systems



MANTIS

The MANTIS Mission Computer is a highly integrated, rugged surveillance computer that sets a new standard for reliability, performance, and versatility in mission-critical applications. The MANTIS was specifically designed to run mission management software, such as OPENSIGHT-mc, and can be custom-configured with a single-channel or 4-channel [internal] ultra-low latency encoder, as well as a secondary PC that is capable of running its own Operating System and supporting an additional workstation.

With a wide range of connectivity options, including Ethernet, USB, and serial interfaces, the MANTIS seamlessly integrates with a variety of sensors, peripherals, and communication systems.

Features

- Latest multi-core processors designed to handle complex computing tasks and demanding video workflows
- Internal Haivision H.264 or H.265 video encoder with HD-SDI inputs for up to 1080p60 video encoding
- Integrated Gigabit Ethernet switch with 5 external Gigabit ports
- Large quantity of common I/O interface (RS-232 / RS-422 / RS-485)
- User removable solid-state drives for mapping and sensitive data
- Optional internally networked second client PC allowing two independent operators to work from one LRU.
- MIL-SPEC connectors with signals grouped for ease of wiring and installation
- Ruggedized design that can withstand extreme temperatures, high levels of vibration, shock, and other challenging conditions commonly encountered in defense applications



We are excited to partner with FlySight to integrate their mission software, OPENSIGHT-mc, with our rugged mission computer, the MANTIS. This integration brings together Viewpoint Systems' robust hardware platform with FlySight's innovative software solution, providing customers with a comprehensive and powerful mission computing system.

**Mike Oeschger, Director of Business Development
Viewpoint Systems, LLC**

OPENSIGHT

OPENSIGHT Mission Console is specifically designed to support payload operators in airborne scenarios, with the aim to conduct the mission more smoothly and efficiently.

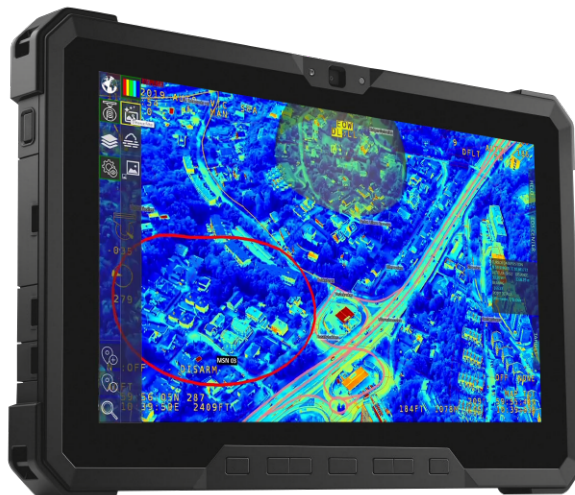
An Augmented Reality engine, capable of handling multiple high resolution video flows, improves the geospatial situational awareness of the operator by the superposition of multiple synthetic information layers.

No need to switch to the moving map anymore: all the information is displayed directly over the video for a better mission effectiveness.

Features

- Video processing algorithms for image enhancement (equalization, expansion, saturation, dehazing, fog suppression, super resolution)
- Augmented Reality engine for real-time vector overlay superimposition (works with custom user data)
- 3D Moving map with multiple layers support and real-time video-over-map projection
- Geodatabase functionality for direct and inverse geocoding
- Full touchscreen HMI for quick and effective interaction with the operator
- Automatic target detection and classification (Artificial Intelligence networks specialized for maritime and airborne threats)

Taking integration to the next level, the OPENSIGHT Mission Console is exceptionally agile and quick to integrate into any mission system. This is made possible through the Open Code provided to OPENSIGHT Software Development Kit (OPENSIGHT-sdk) users. The Open Code, a unique template crafted by FlySight developers, optimizes the implementation of OPENSIGHT-mc. It not only enhances usability but also unlocks the full potential of OPENSIGHT for the entire user community. Users can effortlessly build upon the established solution, customizing, updating, and enhancing capabilities with ease and speed.



We're enthusiastic to unveil our collaboration with Viewpoint Systems at Hai Heli-Expo, showcasing the innovations we bring to the global avionics community. The OPENSIGHT Mission Console seamlessly integrates with exceptional agility, facilitated by the open code. With OPENSIGHT-mc integrating even faster, we unlock the full potential of OPENSIGHT, optimizing its usability during the mission. Coupled with the robustness of the MANTIS rugged mission computer, we offer an advanced, dynamic, and strong solution on board

**Mattia Carpin, Head of Engineering
FlySight Srl**



About Viewpoint System

Viewpoint Systems ("Viewpoint"), headquartered in downtown Pensacola, FL, is a high-growth technology company with a robust engineering and manufacturing base. Viewpoint designs and manufactures ruggedized video displays and mission computers that are tailored to meet the demanding requirements of military and defense applications. Our products have proven themselves in virtually every environment imaginable, and are fielded globally on rotary / fixed wing aircraft, military ground vehicles, Naval vessels, and even the International Space Station.

www.viewpointproducts.com



About FlySight

FlySight provides solutions for design and development of state-of-the-art C4ISR systems (Command, Control, Computer, Communication for Intelligence Surveillance and Reconnaissance). The solutions proposed are based on AI (Artificial Intelligence) approaches exploiting the latest cognitive signal processing and adaptive data fusion algorithms. Our applications are researched and targeted for avionics, naval and underwater sectors, providing geospatial situational awareness both for the on-ground and the on-board segments.

Real time PED (Processing Exploitation and Dissemination) is allowed by the integration of our products in already existing architectures thanks to the interoperability of our systems with STANAG and OGC (Open Geospatial Consortium) standards.

Moreover, the adoption of Deep Learning methodologies coupled to Augmented Reality enables the definition of disruptive ISTAR (Intelligence Surveillance Target Acquisition and Reconnaissance) system.

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