

MSC Cruises' innovative surveillance system bridges gap in overboard detection

MSC Cruises has launched a new vanguard video surveillance system, which will optimise on-board security, allowing for the speediest intervention in the unlikely event a person or object falls overboard.

The integrated system, developed in collaboration with global leaders in security technology, Bosch and Hewlett Packard Enterprise, is now operational after a successful pilot phase of extensive stress-testing and continuous software upgrades – initially on MSC Cruises' latest flagship, MSC Meraviglia.



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"The security and safety of our guests and crew on board, has always been our highest priority. As innovation has been from day one central to the way in which we operate and develop new features for our ships, we have developed a highly-innovative solution that, through the use of military-grade technology, will allow ship command to take immediate action if needed. While a ship at sea is a challenging environment for accurate video security monitoring and operating high-tech equipment, our teams have managed to successfully develop a system that is at the same time accurate, stable and reliable," said Pierfrancesco Vago, MSC Cruises' executive chairman.

Shield of surveillance intelligence

The new MSC Cruises' system consists of a comprehensive shield of intelligent optical and thermal video cameras which provide non-stop comprehensive surveillance alongside the relevant exterior parts of the ship. All captured video images are streamed in real-time to a central security room where the video stream is monitored together with all other inputs from the 1,200 HD CCTV cameras on board the ship.

MSC Cruises' security department and experts from Bosch and Hewlett Packard Enterprise have worked over 14 months to meet demanding security requirements and create the right surveillance setup. While a key component in the surveillance infrastructure is to install highly resilient hardware (cameras, casing, base) that resists tough conditions at sea, a significant part of the process is to programme the software in such a way it provides reliable and accurate data. In order to further increase the accuracy of the captured video images, the latter are processed and analysed by two separate and independent image processing systems.

This double security system has allowed to significantly lower the error margin for false alerts – typically caused by natural movements such as waves, the reflection of sun or moon, or a bird triggering the alarm. These ordinary interferences usually pose significant challenges for current shipboard CCTV technology. Through over 25,000 hours of video analysis, extensive software testing and continuous algorithmic updates, the system has now reached a confirmed accuracy level of 97%.

Over time, similar integrated systems will be developed and deployed across MSC Cruises' global fleet.

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