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Enhanced Airport Vision Display

Improving Airport Surface Management and Remote Operations

Air traffic controllers and airport operators experience recurring distance, weather, and line-of-sight challenges. The additional need to disseminate multiple sources of information from many screens can cause controller/operator strain, as well as safety concerns.

The Searidge Enhanced Airport Vision Display (EAVD) solves these challenges, making it possible to have an accurate, real-time understanding of ground situations. It extends the controller's visibility to desired areas of interest, and displays information in a safe and intuitive way.

The EAVD human machine interface (HMI) consolidates multiple sources of real-time information into a single display creating an enhanced out-the-window (OTW) view. With the platform's innovative design, users can fully customize the data and graphical user interface to their requirements.

HOW THE PLATFORM WORKS

Step 1: Capture real-time video of key areas on your airport surface

Video images are taken from as many distributed cameras as required. Our camera agnostic architecture leverages the most advanced camera technology available on the market, or in some cases can use your existing airfield surveillance.



Step 2: Construct location independent out-the-window view

Searidge's proprietary 'true stitch' algorithm is the most technologically advanced stitching system available on the market. Individual images are automatically synchronized and processed in real-time, resulting in a truly seamless panoramic view.



Step 3: Heads up display: Beyond out-the-window view

The EAVD platform includes a wide range of built-in interfaces, including many industry standard protocols (i.e. ASTERIX, ADEXP, etc.), enabling it to readily integrate with various ATM, CNS, airport, weather, and lighting systems. Overlaying data such as aircraft and gate ID tags, target types, ground lighting, alarms, weather information, and gate status provides controllers with a single source of critical information required for them to make safe and efficient decisions.



Step 4: Versatile display options

The EAVD architecture enables the system's HMI to be configured on a multitude of display hardware configurations. This allows us to tailor the HMI to various end users, operational concepts, and locations. Additional features allow you to incorporate role-specific display configurations, toggle on/off external system data as needed, and automate your processes.



The EAVD platform comes with all the power and performance you expect from an ATC-grade display system. Supporting the latest technology such as 4K/UHD, EAVD offers an unprecedented level of automation and better communication, resulting in increased airport efficiencies and greater capacity management.



Step 5: 'Electronic binocular' functionality

High definition (HD) day/night pan-tilt-zoom (PTZ) cameras will provide staff the ability to view and zoom into areas of interest on the airfield. PTZ automation and control features enable configurable preset zoomed views as well as manual control capabilities.

The HMI is also configurable, allowing operators to toggle between various automated and manual PTZ settings to best monitor critical areas of interest (e.g. apron areas, gates, hold lines, taxiways, approach path, threshold/touchdown point, runway entries/exits, etc.)

Deployment Versatility

We have worked exclusively with Airports and ANSPs worldwide for more than 10 years. Fostering continued innovation, our knowledge, experience and global presence make us the right partner to deliver reliable solutions to the market. Searidge was the first company to have an operational video system in an air traffic control tower. Now with EAVD technology at more than 30 sites in 16 countries, our video is viewed by the most Air Traffic Control Officers (ATCOs) and airport operations personnel worldwide.



To learn more about our EAVD platform and the key role it can play to improve your airport operation, please contact us to schedule a webinar and technology demonstration.