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Manchester Airport (United Kingdom) will become the first major international airport in the UK to adopt a hybrid digital control tower in 2026. The system, developed in partnership with NATS and Searidge Technologies, will integrate ultra-high-definition panoramic cameras with real-time radar data overlays to enhance aircraft movement management, particularly around the expanded Terminal 2.

The Digital Apron Management System (DAMS) will provide air traffic controllers with optimised views of 28 parking stands and four taxi-lanes, improving efficiency, capacity, and on-time performance. The technology could later incorporate artificial intelligence (AI) features, such as automatic aircraft turnaround monitoring.

This upgrade is part of Manchester Airport's GBP 1.3 billion transformation programme, aimed at reducing delays and increasing flight operations. The project also includes a test and development suite for future digital control innovations, mirroring a similar initiative at Heathrow Airport.

Manchester's adoption of hybrid digital air traffic control places it at the forefront of airport operations technology in the UK, ensuring improved situational awareness and more efficient ground movements.

Schiphol Airport (Netherlands) is testing an electric, self-driving baggage vehicle in collaboration with KLM to improve baggage handling efficiency and reduce workload. The autonomous vehicle, provided by Aurrigo, transports baggage belonging to transfer passengers with long layovers to a temporary storage location before delivering it to the baggage hall at the right time. This new system aims to ease pressure on the baggage system, particularly during peak hours when 31,000 transfer bags are processed daily.

The first phase of testing began in August 2024, focusing on mapping the apron environment and autonomously navigating the baggage hall. The second phase, which started earlier this month, involves testing the vehicle around the pier before expanding to aircraft stands later in 2025. The test will continue until the end of 2025, with the vehicle equipped with Lidar sensors and 360-degree cameras for safe operation. A Safety Operator remains onboard to intervene if needed.

Schiphol aims to become one of the most sustainable and innovative airports by 2050, replacing its ground vehicle fleet with autonomous, zero-emission alternatives while ensuring that employees continue to have key roles in overseeing automated operations.

SOF Connect and Veolia Solutions Bulgaria have signed a three-year contract for building maintenance at Sofia Airport (Bulgaria). Veolia, a water, energy, and technical services management provider, will oversee expert maintenance of the airport's building systems.

The contract was signed during a business delegation visit from the French-Bulgarian Chamber of Commerce and Industry, attended by French Ambassador H.E. Joël Meyer. This marks the first partnership between Sofia's two largest concessionaire companies, both part of leading French groups. SOF Connect CEO Jesus Caballero emphasised that the collaboration will improve efficiency, sustainability, and service quality at the airport.

Veolia Regional Director for Bulgaria and Greece, Francois Debergh, highlighted the company's expanding role in the aviation sector, aiming to enhance operational efficiency and competitiveness at Sofia Airport. The company will implement advanced monitoring and maintenance management technologies, including Computer Aided Facility Management (CAFM) software for efficient terminal and infrastructure management.

Veolia has extensive experience managing airport infrastructures worldwide, including airports in Romania, Greece, the UK, the Middle East, and Bulgaria's Varna and Burgas airports. #1238.GSE1

Vigo Airport (Galicia, Spain) will become the first airport in Spain to implement a digital control tower, set to begin operations on 11 June 2025. Managed by Aena, the project aims to maintain the same safety standards as conventional control towers while introducing advanced technology for air traffic management.

The implementation will be gradual, initially operating for two hours per day alongside the existing tower to ensure a smooth transition. Air traffic controllers will receive specialised training, simulations, and practical exercises before the full deployment.

The digital tower, located in a separate building at the airport, will replace direct visual and audio inputs with a high-tech audiovisual system consisting of fixed and mobile cameras, microphones, and sensors. The system includes a 360° view of the airfield, additional cameras for blind spots, and a videowall with 13 monitors, allowing controllers to zoom in on specific areas.

Aena highlighted that over 30 European airports already use digital towers, with similar initiatives expanding in Australia, Canada, and the United States. This technology is expected to enhance operational efficiency, improve service levels, and provide controllers with a more comprehensive view of airport activities, marking a new era in air traffic control for Spain.

Delhi International Airport Ltd (DIAL) has introduced the Unified Total Airside Management (UTAM) system at Indira Gandhi International Airport (IGIA) in India to enhance operational efficiency and safety. The AI-driven system leverages Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT), and radar technology to monitor airside vehicle movements, runway occupancy, taxiing time, and turnaround efficiency.

A centralised control room has been set up to track baggage carts, fuel trucks, and maintenance vehicles in real time. The system will also ensure that Ground Support Equipment (GSE) stays on its designated path, issuing alerts for any violations. Additionally, UTAM will provide a real-time view of aircraft movements within a 70-mile radius, helping predict and prevent delays while improving coordination among airlines, ground handlers, and security teams.

DIAL completed a pilot project with Akasa Airlines and plans to onboard other airlines in the next two to three months. IGIA, India's busiest airport, handles around 1,300 flight movements daily.

Leidos and SeeTrue have partnered to enhance AI-powered threat detection technology for airport security and customs screenings. The collaboration integrates Leidos' Trusted Mission AI approach with SeeTrue's advanced threat detection algorithms to improve the identification of prohibited items, including currency and narcotics. These AI capabilities will soon be deployed through Leidos' ClearScan CT scanner.

Leidos' Senior Vice President of Security Enterprise Solutions, Michael Van Gelder, emphasised that the partnership reinforces their commitment to delivering innovative security solutions. SeeTrue's CEO, Assaf Frenkel, highlighted their shared goal of automating threat detection using AI and open architecture technology.

Leidos provides integrated security solutions for aviation, ports, borders, and critical infrastructure, with a reported annual revenue of USD 16.7 billion in 2024. SeeTrue specialises in AI-driven screening technologies for airports and security checkpoints worldwide, with operations in Tel Aviv, London, New York, and Amsterdam.

Biometric check-ins and bag drop will be available at more than half of global airports by 2026, according to SITA's 2024 Air Transport IT Insights report. The study highlights a growing investment in biometric identity management, with 7 in 10 airlines expected to adopt these systems by next year.

The impact on airport congestion is expected to be significant, with passenger processing times improving by 30% and wait times reducing by 60%. Similar results were seen in IATA's One ID pilot in Asia, which reported a 40% reduction in processing times.

IT spending in aviation continues to rise, with airlines investing USD 37 billion and airports USD 9 billion in 2024. Alongside biometric adoption, the industry is prioritising cybersecurity enhancements to protect operations and passenger data.

The use of single-token digital identities has grown from 17% to 24% in the past year, with another 27% planning implementation by 2027. Touchless technologies are in development at 66% of airports, while 32% have already implemented biometric-enabled digital identity systems, with another 43% planning to do so before 2028.

Data privacy concerns (19%) remain a major challenge, along with border authority compliance (18%). Regarding biometric verification, 38% of respondents plan to use national or regional credentials (such as the EU Digital Identity Wallet), while 32% will use airline or airport-issued tokens. ICAO's Digital Travel Credentials (DTCs) and ePassports are also gaining traction, with 27% and 26% adoption plans, respectively.

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