

## **GROUND SUPPORT**

### **Airport Terminals**

**Austin-Bergstrom International Airport (Texas, United States) is investing USD 241 million to modernise its baggage handling system, aiming to handle 4,000 bags per hour by 2026.**

The project includes 1.5 miles of new conveyor belts to streamline the movement of luggage from check-in to planes, significantly increasing capacity from the current 1,600 bags per hour. The first phase, set to be completed this summer, will raise capacity to 2,400 bags per hour.

Funded through airport revenue and federal grants, the upgrade aims to reduce delayed flights and lost baggage incidents. #1233.GSE1

### **Landside**

**Swedavia, Sweden's state-owned airport operator, has partnered with Virta to enhance electric vehicle (EV) charging infrastructure across its airports, including Stockholm Arlanda, Gothenburg Landvetter, and Malmö.** The collaboration will connect 800 charging points to Virta's advanced platform, enabling dynamic energy management, seamless billing, and scalable operations to meet growing EV demand.

This initiative marks the first time Swedavia has implemented a separate charging payment system, transitioning from its previous model where charging was included in parking fees. The change aims to provide a transparent and user-friendly experience for travellers. Virta's technology allows for future expansion without major electrical upgrades, ensuring sufficient charging capacity for all EV-driving passengers.

Swedavia joins other prominent operators, such as Finland's Finavia and Berlin Brandenburg Airport, in adopting Virta's solutions, making it part of a broader European sustainable mobility network. EV drivers can now access charging at Swedavia airports through a single platform, with interoperability in over 60 countries.

The project, currently in its migration phase, is expected to bolster Swedavia's capacity to manage increasing volumes of EV users while maintaining energy grid stability. This step reinforces Swedavia's commitment to sustainability and positions it as a leader in sustainable airport operations in northern Europe.

Virta, a global pioneer in smart charging services, supports over 550,000 charging points worldwide through its extensive network. This partnership underscores Swedavia's role in connecting Sweden to global markets while advancing e-mobility solutions for the growing number of electric car users.

#1233.GSE2

**Amsterdam Airport Schiphol (Netherlands) has taken a significant step towards constructing a new baggage basement in collaboration with the Fundament consortium, which includes Dura Vermeer and Mobilis.**

This provisional tender concludes the preparatory phase and begins a collaborative design and planning process, with construction scheduled to start in 2026.

The baggage basement will cover 32,500m<sup>2</sup>, with over 21,000m<sup>2</sup> allocated to new baggage systems, complementing Schiphol's existing 145,000m<sup>2</sup> system, much of which requires renewal. This addition is vital to maintain operational continuity and improve working conditions for baggage employees.

Vanderlande will oversee the modernisation of baggage systems to enhance efficiency and ergonomics.

Schiphol is investing EUR 6 billion (approximately USD 6.4 billion) over the next five years, its largest investment plan to date, aimed at upgrading infrastructure, enhancing services, and ensuring better

conditions for passengers and employees. This project introduces a new collaborative approach to optimise planning, costs, and execution for complex construction projects. #1233.GSE3

**The PASS4CORE project has inaugurated a secure truck parking facility at Milan Malpensa Airport (Italy), enhancing safety, sustainability, and logistics in line with the EU transport network and green mobility goals.**

Co-financed by the European Commission's CEF-Transport program with EUR 5.5 million of the EUR 27.5 million investment, the initiative aims to certify 1,357 parking spaces by 2025, with plans for 2,500 additional spaces in future phases.

Located at Cargo City, the 63,000 m<sup>2</sup> facility includes 154 heavy vehicle spaces, advanced monitoring systems, LED lighting, nine electric charging stations, and an 800 m<sup>2</sup> building offering amenities such as showers, restrooms, a cafeteria, and a panoramic terrace. Construction began in April 2024 and has recently been completed.

As part of a broader strategy, PASS4CORE supports EU goals by improving driver safety, reducing road accidents, and providing a network of 24 secure parking areas across Italy by mid-2025. The initiative is also linked to the Malpensa H2 project, which will introduce a green hydrogen refuelling station, positioning Malpensa as a leader in sustainable mobility. #1233.GSE4

**The Greater Orlando Aviation Authority (GOAA) has approved a USD 13 million project to install an advanced parking guidance system across all three parking garages and the Terminal Top at Orlando International Airport (Florida, United States).**

The camera-based system will provide real-time information on parking availability using color-coded lights and digital signage, making it easier for drivers to locate open spaces.

This new system will also include license plate reader technology to assist guests in finding their vehicles. Covering approximately 11,000 spaces in parking garages, the installation will begin in mid-2025 and take 24 months, with minimal disruption to ongoing operations. Additional surface lots and plans for a Consolidated Rental Car Facility (ConRAC) will increase parking availability by 4,500 spaces by 2032. #1233.GSE5

## **Airport Ramp & Airfield**

**KLM successfully conducted its first passenger flight using a Taxibot at Amsterdam Schiphol Airport (Netherlands).**

The Taxibot towed a Boeing 737 from the gate to the Polderbaan runway with the aircraft's engines off, reducing emissions of CO<sub>2</sub>, NO<sub>x</sub>, and ultrafine particles during taxiing. Unlike traditional tow vehicles, the Taxibot is controlled by the pilot while taxiing, with the tractor driver only handling pushback and coupling.

This initiative, part of a collaboration involving KLM, Schiphol, and other partners, currently focuses on narrowbody aircraft like the Boeing 737, A321neo, and Embraer models. While the Taxibot is partially powered by fossil fuels, KLM's long-term goal is to transition to fully electric Taxibots.

Expanding the use of Taxibots at Schiphol will require significant infrastructure upgrades, process adjustments, and pilot training. This project reflects KLM's commitment to reducing environmental impact and advancing sustainable aviation practices. #1233.GSE6

**Düsseldorf Airport (North Rhine-Westphalia, Germany) is planning a new fuel depot to support the aviation industry's sustainable transformation.**

The modern facility will enable the storage and distribution of Sustainable Aviation Fuel (SAF) and sulphur-free kerosene, increasing storage capacity by approximately one-third compared to the current depot. The project will also reactivate a railway connection to ensure sustainable fuel delivery. Scheduled to be operational by early 2028, the depot will support EU regulations requiring airlines to gradually increase SAF blending in jet fuel, starting

at 2% in 2025 and reaching at least 70% by 2050. The facility will meet stringent safety and environmental standards while ensuring reliable access to diverse fuel types.

An external partner will plan, finance, construct, and operate the depot for a minimum of 20 years, after which ownership will transfer to the airport. Located near Cargo Road, the project includes activating the rail connection by 2029 to facilitate climate-neutral fuel transport. This will simplify the procurement of SAF from distant refineries, such as those in Rotterdam, improving cost efficiency and availability.

The airport describes the initiative as a step toward achieving CO<sub>2</sub>-neutral aviation, with modern, future-oriented infrastructure supporting its vision for sustainability. #1233.GSE7

**UFA, Inc., a global provider of aviation simulation technologies, has successfully installed its Airside Driving Simulator and Pushback Simulator at Cologne Bonn Airport (North Rhine-Westphalia, Germany), marking a significant advancement in airside driver training and airport safety worldwide.** These simulators provide an innovative, sustainable, and effective training solution for airfield drivers, from novices to experienced operators seeking re-certification.

The integration of this state-of-the-art technology was seamless, with instructors at Cologne Bonn Airport mastering the system and independently creating exercises within a day. This installation makes Cologne the first airport to deploy both simulators, aligning with stringent European airside driving standards, which regulate airport certification, infrastructure, and training requirements.

The demand for enhanced driver training extends beyond Europe, as the Federal Aviation Administration (FAA) in the United States has launched an audit into runway incursion risks at its busiest airports, highlighting global interest in improved operational safety. UFA's president, Lawrence Pennett, emphasised the company's commitment to innovation, safety, and sustainability, noting that these advancements are reshaping the future of airside operations worldwide. #1233.GSE8

**Flughafen Zürich AG is launching a pilot project to test self-driving shuttle buses for airport employees, aiming to explore the potential of autonomous technology within the airport environment.** The initiative begins with a Robotaxi mapping the designated route in mid-December, laying the groundwork for automated operations.

The self-driving shuttle, accommodating up to nine passengers, is expected to commence service in the coming months. It will operate on a predefined airside route, connecting Gate 101 to the maintenance facility at Gate 130 without crossing active taxiways, ensuring a safe environment for initial testing. Initially, a safety driver will monitor the system, transitioning to remotely supervised operations based on results from the early phase.

The project involves close collaboration with the Swiss Transit Lab (STL) and technology provider WeRide, known for its advanced autonomous driving solutions. The RoboBus, co-developed with Renault, has already undergone successful trials in Paris traffic and meets Zurich Airport's stringent safety and data protection requirements.

Led by the ZRH Innovation Hub, the project seeks to establish comprehensive standards for the safe and efficient use of autonomous vehicles. Flughafen Zürich AG is engaging with other airports, such as Brussels and Amsterdam, to share insights into this emerging mobility solution. The first shuttle rides are planned for the first quarter of 2025, marking a significant step toward integrating innovative transportation technologies into airport operations. #1233.GSE9

**JFK Millennium Partners (JMP), the developer of the upcoming Terminal 6 (T6) at John F. Kennedy International Airport (New York, United States), has issued a Request for Proposals (RFP) for an all-electric ground support equipment (GSE) fleet.** The fleet, set to debut with T6's opening in Q1 2026, will include electric pushbacks, baggage tugs, belt loaders, K-loaders, stair trucks,

and more, alongside necessary charging infrastructure, maintenance, and repair services. Proposals are due by 17 January 2025, with the provider expected to be selected in Q1 2025.

This initiative supports JMP's sustainability strategy and the Port Authority of New York and New Jersey's Net Zero Roadmap, which requires zero-emission GSE across major regional airports by 2030. T6 sustainability features include high-efficiency systems, over 6,000 solar panels, stormwater reuse, and 90% construction waste recycling, aiming for LEED and ENVISION Gold certifications. The electric GSE fleet will be shared among T6 airline partners and aligns with efforts to eliminate fossil fuel dependency, reduce carbon emissions, and enhance operational efficiency at JFK Airport. #1233.GSE10

**Dallas Love Field Airport (Texas, United States) will become the first airport to deploy Rosenbauer's fully electric PANTHER 6x6 fire truck in mid-2025.** This initiative is part of an innovative partnership between Rosenbauer America and the Dallas Fire Rescue Department (DFR) to advance sustainable airport safety technologies. The vehicle will undergo a six-month testing phase, integrating into daily operations to assess performance, operational efficiency, and functionality in emergencies and training. Insights from this phase will inform further development before the vehicle joins the airport's fleet.

The PANTHER 6x6 electric, capable of accelerating to 50 mph in under 25 seconds and delivering 2,370 gallons per minute of water capacity, meets International Civil Aviation Organization (ICAO) and Federal Aviation Administration (FAA) standards. It features a high-voltage electric drive system with rapid recharging capability, allowing readiness for operations within 20 minutes. The vehicle aims to reduce emissions and noise while maintaining high performance.

This deployment aligns with Dallas Love Field's sustainability goals, which include achieving carbon neutrality by 2040. The airport recently achieved Level 4 in the Airport Carbon Accreditation program, demonstrating leadership in environmental initiatives. With over 17.6 million passengers in 2023 and 675 daily aircraft operations, the addition of the PANTHER 6x6 electric highlights the airport's commitment to safety, sustainability, and innovation. Rosenbauer has already produced and tested three prototypes, with broader availability expected by the end of 2025. #1233.GSE11

**Oshkosh Airport Products has delivered four Striker® Aircraft Rescue and Firefighting (ARFF) vehicles to Costa Rica's Dirección General de Aeronáutica Civil (DGAC) to enhance emergency response capabilities at Juan Santamaría Airport, the nation's busiest international gateway.** The fleet includes three Striker 6x6 ARFF vehicles and one Striker 4x4 ARFF vehicle, specifically equipped to handle the airport's challenging terrain and elevated location. Key features of the new vehicles include TAK-4® Independent Suspension for reliability on uneven surfaces, Scania DC16 V8 engines compliant with Tier 4F emissions standards, and 360-degree backup cameras for enhanced safety. Two of the 6x6 vehicles are equipped with the Oshkosh® Snozzle® High Reach Extendable Turret (HRET), which delivers 500/1,000 gpm with a piercing tip for hard-to-reach fires. Additionally, the Eco EFP™ foam measurement system supports Costa Rica's green airport initiatives.

DGAC's partnership with Oshkosh Airport Products spans over two decades, reflecting trust in the company's advanced technology and service support. This fleet upgrade aligns with Costa Rica's commitment to aviation safety and environmentally sustainable airport operations. Juan Santamaría Airport serves over 1.7 million tourists annually, and these vehicles are expected to significantly bolster emergency response both on and off the airfield. #1233.GSE12

**Tristar Energy Limited, part of the UAE-based Tristar Group, has signed an agreement with the Uganda Civil Aviation Authority (UCAA) to operate a newly constructed fuel storage facility and fuel hydrant pipeline at Entebbe International Airport (Uganda).** The facility, built under a Build, Operate, and Transfer (BOT) arrangement, includes 12 million litres of existing fuel storage and a 7-kilometre underground fuel hydrant pipeline with 43 hydrant pits. Once fully completed, it will have a total storage capacity of 22 million litres, covering the entire airport.

The facility is designed to industry-leading standards, featuring a leak detection system and 24/7 control and monitoring. It aims to enhance fuel availability, improve aircraft turnaround times, and support the growing number of operators at the airport, aligning with Entebbe's ongoing expansion programme.

At the agreement signing in Kampala, UCAA Director General Fred Bamwesigye and Tristar Group CEO Eugene Mayne highlighted the infrastructure's role in boosting safety, operational efficiency, and regional development. Mayne reaffirmed Tristar's commitment to world-class fuel handling and future expansion to meet long-term demand. This collaboration supports Entebbe International Airport's infrastructure growth and aims to strengthen Uganda's aviation sector. #1233.GSE13

**Air India SATS (AISATS) has expanded its Aerowash robotic aircraft cleaning technology to Bengaluru's Kempegowda International Airport (KIAB/BLR), marking a significant step in sustainable airport operations.** Developed in partnership with Aerotech Support Services, the Swedish-designed Aerowash system reduces environmental impact, saving approximately 31,000 tons of CO2 emissions and 4.2 million litres of water across 2,414 aircraft cleans. It also improves operational efficiency by reducing ground time and aerodynamic drag while offering ergonomic benefits for operators.

Following its initial deployment in Delhi, this rollout in Bengaluru makes AISATS the first ground-handling service provider in India to adopt such eco-friendly cleaning technology. The innovation aligns with AISATS' sustainability goals, supporting airlines in meeting global environmental standards while enhancing aircraft maintenance efficiency. This expansion reinforces AISATS' leadership in integrating advanced, environmentally responsible solutions into aviation services, with plans to extend Aerowash technology to more airports across India. #1233.GSE14

**Japan Airlines (JAL) has introduced Japan's first electric high-lift loader (HL) and belt loader (BL) at Tokyo's Haneda Airport as part of its efforts to decarbonise ground support equipment (GSE).** The new electric vehicles will begin full-scale operation on 17 December 2024, contributing to the aviation industry's push for sustainability.

The electric high-lift loader, manufactured by Germany's TREPEL, is used to load and unload containers and pallets into aircraft. The electric belt loader, produced by Spain's EINSA, handles the loading and unloading of baggage from bulk cargo compartments. Both vehicles can operate for up to two days on a full charge, demonstrating efficiency and environmental responsibility. Another electric belt loader from Slovenia's TIPS is expected to be introduced in February 2025.

The introduction of these electric GSE reduces CO2 emissions, improves noise reduction, enhances operator working conditions, and addresses environmental concerns around airports. This initiative aligns with JAL's commitment to creating a more sustainable aviation industry. #1233.GSE15

**The New NAIA Infra Corp. (NNIC), operator of Ninoy Aquino International Airport (NAIA) in Manila (Philippines), has partnered with Manila Electric Company (Meralco) to ensure a reliable power supply as part of the airport's modernisation efforts.** The agreement includes the development of a 115-kilovolt (kV) – 34.5 kV GIS substation, complementing Meralco's existing NAIA-3

substation and providing enhanced reliability with two 83-MVA transformer banks and six 34.5 kV underground feeders.

Meralco and NNIC will also establish an underground power distribution network, aligning with operational needs through 2026. Additionally, Meralco's subsidiary MSERV will install a 4900 KV-ampere uninterruptible power supply system at six critical locations, including Terminal 3 and the airfield, to ensure uninterrupted power for key operations.

This partnership aims to address past power reliability issues that caused significant disruptions, including flight delays and cancellations. Alongside power upgrades, NNIC is prioritising decongesting traffic, widening roads, mitigating flooding, and improving equipment, with the goal of transforming NAIA into a world-class facility to support tourism and economic growth. #1233.GSE16

## **Safety & Security**

**Belfast International Airport (Northern Ireland, United Kingdom) has opened a new ground-floor arrivals lobby as part of a GBP 25 million (approximately USD 31.4 million) investment in a new security hall.** This is the latest phase of a GBP 100 million transformation plan led by its

French owner, Vinci. The upgrades include six new 3D scanners, allowing passengers to keep liquids and electronics in their bags during security checks, although the 100ml liquid cap remains in place.

The airport is preparing for its busiest Christmas season ever, with over 500,000 passengers expected in December 2024. The surge in passenger numbers is driven by Ryanair's expanded winter schedule, the cap on passenger numbers at Dublin Airport, and the temporary closure of Holyhead Port in Wales.

Chief Executive Dan Owens emphasised the airport's commitment to enhancing the passenger experience, with additional terminal upgrades continuing into 2025. Passengers are advised to arrive at least two hours before departure and avoid wrapping gifts in hand luggage to streamline security checks. #1233.GSE17

**Vnukovo Airport in Moscow, Russia, has expanded its security screening area for international flights by 50%, adding new exit groups and more seating for passengers.** This update aims to make pre-flight security checks more comfortable and efficient. The airport plans to install additional metal detectors and scanners, although specific details about the new equipment were not disclosed.

The changes have been well-received, with no significant complaints about queues or overcrowding in the departure area. Additionally, Vnukovo now offers electronic boarding passes for all flights, further streamlining the passenger experience. #1233.GSE18

**CLEAR has expanded its presence at Hartsfield-Jackson Atlanta International Airport (Georgia, United States) by introducing expedited security lanes in the international terminal.** This new facility, launched on 4 December 2024, integrates advanced facial recognition and identity verification technology to enhance the passenger experience, reducing wait times and streamlining the security process.

The expansion creates 30 new jobs, increasing CLEAR's workforce at the airport to over 130 and contributing to its annual economic impact of over USD 14 million in Atlanta. CLEAR, already present in the airport's domestic terminal since 2017, now operates expedited lanes in over 50 airports across the United States. The company offers its services to over 27 million members, supported by partnerships with airline loyalty programs and American Express.

This move marks another milestone in CLEAR's growth strategy, emphasising convenience and efficiency for travellers. The company continues to innovate, including its collaboration with TSA PreCheck to simplify the check-in process, and has been expanding its services nationwide. #1233.GSE19

**Sydney Airport (Australia) is rolling out 15 new advanced screening lanes at Terminal 1 International.** These lanes feature state-of-the-art CT scanning technology, increasing passenger throughput capacity by 30%. Once fully operational, the upgraded lanes will handle 5,850 passengers per hour, up from 4,500. The improvements also allow passengers to leave liquids and aerosols in carry-on luggage, streamlining the screening process.

Two of the upgraded lanes are already in use, with the full rollout scheduled for completion by the end of 2025. The project includes reorienting security screening ahead of passport control, reducing wait times and improving passenger flow.

The airport is gearing up for its busiest festive season since 2019, with an expected 5.8 million passengers travelling through its terminals between 13 December 2024 and 27 January 2025. This includes 2.5 million international passengers through Terminal 1 and 3.3 million domestic passengers through Terminals 2 and 3. To accommodate the surge and improve the travel experience, Sydney Airport is implementing significant security enhancements as part of its ongoing capital improvement program.

Sydney Airport has also introduced live kerbside wait-time tracking on its website, allowing passengers to monitor their journey from arrival at the airport precinct to terminal entry. This feature aims to reduce stress and improve the overall travel experience. #1233.GSE20

## **Awards & Recognition**

**ADB SAFEGATE, a provider of airside solutions, has won multiple awards at the Airport Technology Excellence Awards 2024, held on 16 December in Zaventem, Belgium.** The company was honoured in four categories: Environmental Initiatives, Innovation, Safety, and Business Expansion, reflecting its leadership in enhancing airport efficiency, safety, and sustainability with innovative Airside 4.0® solutions.

Key achievements include the Safedock A-VDGS for reducing emissions and operational costs, the Airside Cloud platform for digitalising airside operations, and OneControl, which improves safety and situational awareness, particularly at Hamburg Airport. Additionally, the Terminal One project at JFK Airport showcases ADB SAFEGATE's expertise in ramp management and airport operations.

The Airport Technology Excellence Awards, powered by GlobalData, celebrate groundbreaking achievements shaping the future of airports globally. #1233.GSE21

## **Names**

**Oshkosh Corporation has announced the appointment of Ranjit Nair as the new president of Oshkosh AeroTech, succeeding Chuck Durst, who will retire in March 2025 after nearly 40 years with the company.** Nair brings over 20 years of experience in the heavy-duty equipment sector, including leadership roles at Epiroc, Stanley Black & Decker, and John Deere.

Nair's appointment reflects Oshkosh AeroTech's focus on innovation and meeting the evolving demands of the aviation industry, particularly in response to dynamic passenger and freight trends. He will lead efforts to deliver advanced solutions and drive growth domestically and internationally.

The company expressed gratitude to Durst for his contributions, which have positioned Oshkosh AeroTech for future success while welcoming Nair's strategic vision and expertise to accelerate its development in the aviation sector. #1233.GSE22

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