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JUNE/JULY 2024

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How Women Can Strengthen the Ground Handling Workforce

A people first approach and efforts to overcome gender imbalance can help ground service providers find success.

The 2024 IATA Ground Handling Conference, held in Reykjavik Iceland last month, focused on improving safety and reducing operational risk, highlighted the benefits of implementing global standards and reinforced the importance of sustainability.

The conference approached sustainability in an interesting way. In addition to noting the environmental benefits of electric, hydrogen and other alternative energy sources for GSE, the conference also identified human elements to sustainability.

During a plenary session on people's sustainability, Archana Arcot and Juliet Thomson, chief people officers at Unifi and Menzies, respectively, highlighted important considerations for recruiting and retaining employees.

Arcot noted organizations must put people first to ensure success. While pay will always remain an important component for employees, more emphasis is being placed on career advancement.

Thomson said career progression is a vital element to the ground handling industry, citing more than 50 percent of Menzies station managers started their careers in hourly paid roles.

With opportunity for career progression in mind, Thomson also pointed out an opportunity for the industry to include more women in the workforce.

Menzies has set a target of 25 percent of its senior leadership being women by 2025, and 40 percent of its middle management population being women by 2033.

"To achieve those targets, we have to make our industry more attractive to females. We have to focus on things like flexibility. We have to focus on things like maternity pay and benefits," Thomson said.

"Crucial to gender equality, representation matters," she continued. "We have to show this is a workplace that females can survive and thrive in. We have to show females doing the roles that we represent across the industry, and we have to show females as senior levels within the organizations so females can understand there is good career potential within our industry."

The challenge of recruiting and retaining workforce is not a new task for ground handling firms. But taking a people first approach, and providing additional opportunities for women, can help overcome these pain points. **GSW**

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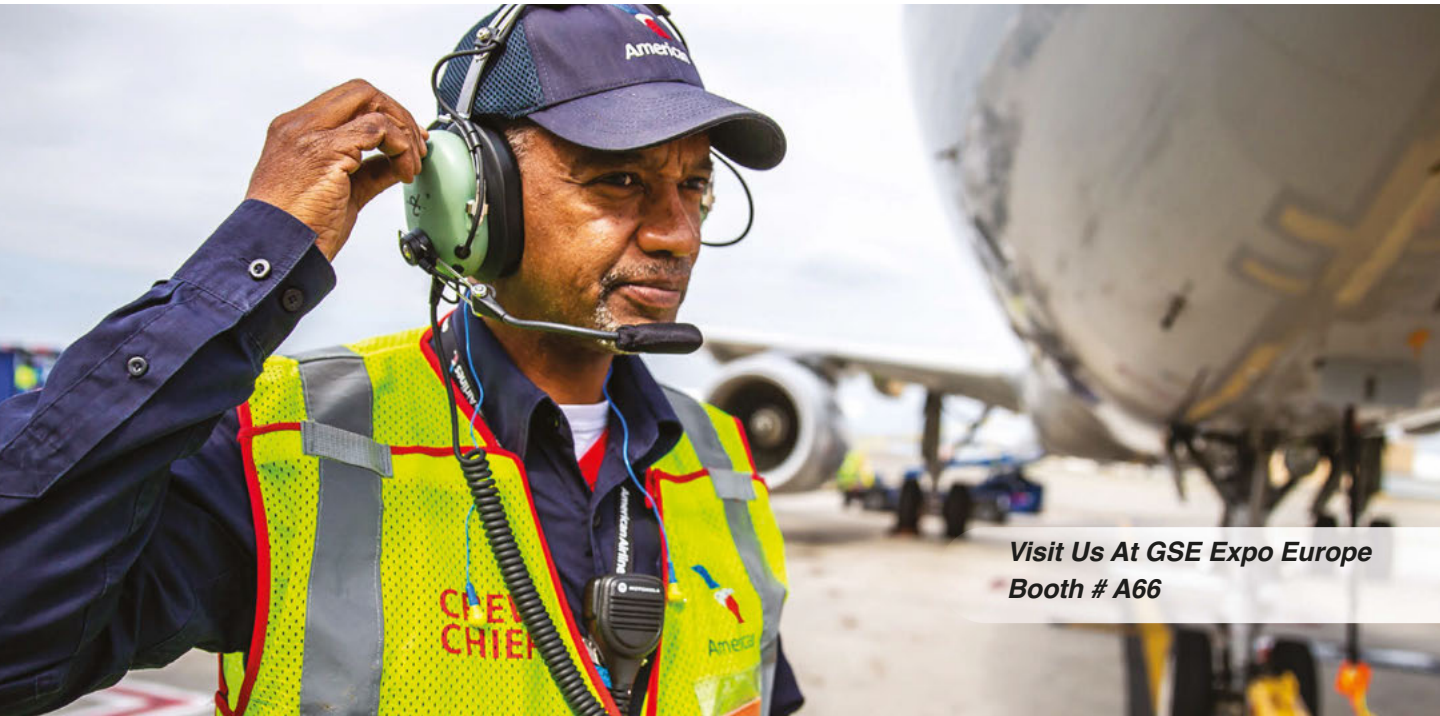
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TOP NEWS

Dynell to Showcase Hydrogen- and Battery-Powered GPUs at GSE Expo Europe



Dynell will officially introduce its DHM 090 model hydrogen GPU during the GSE Expo Europe in Lisbon. Boasting a storable power of 350kWh for 90kVA operation, this breakthrough revolutionizes GPU applications with efficient, sustainable energy solutions. The hydrogen GPU offers advantages over battery GPUs, as refueling can be done within minutes instead of hours. This innovation significantly reduces carbon footprints and enhances energy storage capabilities.

Dynell will also display its DEM 090 all-electric battery GPU, which offers capacities from 84.5 to 193kWh for 90kVA applications. It operates efficiently in cold temperatures due to an installed heating

system. Featuring a high-performance battery from a European supplier, the DEM 090 includes advanced battery monitoring for maximum safety, making it a reliable and eco-friendly choice for the ramp.

The 2024 GSE Expo Europe will take place Sept. 17-19 in Lisbon, Portugal. *Ground Support Worldwide* is compiling news, product previews and other announcements taking place at the GSE Expo Europe. Coverage will be continually updated leading up to the event, during the expo and after the show. Stay up to date by visiting AviationPros.com/magazine/76260. To be included in this ongoing coverage, contact editor Josh Smith at JSmith@Endeavorb2b.com.

UPCOMING EVENTS

June 25-27

8th Americas GHI Conference
Toronto, Ontario, Canada

July 2, 3

Wings of Change Focus Africa
Johannesburg, South Africa

July 22-28

EAA AirVenture Oshkosh
Oshkosh, Wisconsin

"Obtaining ISAGO certifications for the sixth time is a testament to the hard work and constant dedication of our great team," said Arturo Cassinelli, Talma's corporate general manager.



JAL Introduces eGPU at Matsuyama Airport

Tamagawa Aero Systems Co., Ltd. and Japan Airlines Co., Ltd. (JAL) have introduced a lithium-ion battery-powered ground power unit (eGPU) at Matsuyama Airport.

When considering the expansion of eGPU deployment at airports in Japan, the installation of charging infrastructure and securing AC power sources for use with jet aircraft were issues. At Matsuyama Airport, these issues were resolved by converting the power plugs used for snowplow vehicle heaters.

Within the JAL Group, Japan Air Commuter (JAC) introduced eGPU at seven airports in 2023, and Hokkaido Air System (HAC) started operations with eGPU at three airports in March.



Hactl Recognized First in Asia with Enhanced GSE

Hong Kong Air Cargo Terminals Limited (Hactl) is Asia's first ground handler to receive a certificate under the IATA Enhanced GSE Recognition Program.

The program encourages the installation of anti-collision systems on new and existing ground support equipment (GSE) to prevent expensive potential damage to aircraft on the ramp.

Hactl began installing anti-collision equipment to its GSE fleet in 2017. Its collision avoidance systems trigger an audio-visual alert to operators when GSE is within close proximity to aircraft.



Talma Receives ISAGO Certifications

Talma, a member of Grupo Sandoval, has received IATA Safety Audit for Ground Operations (ISAGO) certification from the International Air Transport Association (IATA) as a head office (provider) and for its station in Lima, Peru.

PEOPLE

SATS Appoints New Chairman

SATS Ltd. has announced the appointment of Irving Tan as an independent director and chairman-designate as part of the group's board leadership renewal process. Tan will succeed Euleen Goh, who will be appointed as advisor to the chairman.

Tan has held management and leadership positions

in the high-tech sector and has decades of experience in sales and global operations, market transitions, and customer and government dynamics.

"I am excited to join SATS as it continues its transformation into a global aviation services company, focused on capturing the growth opportunities that the global aviation sector offers, to create value for our stakeholders," said Tan.



Irving Tan

Hermes Appoints New Chief Technology Officer



Hermes Logistics Technologies (HLT) has appointed Andrew Knott as its chief technology officer (CTO).

Andrew Knott Knott brings more than 25 years of experience in tech and software development to HLT.

"The Hermes SaaS product represents a huge opportunity to drive digitalization in the air cargo industry, and when we combine that with the flexibility and efficiency of cloud hosting, the potential gains for customers are vast," said Knott.

Knott will lead HLT's strategy to develop the Hermes Ecosystem and

increase digitalization in the air cargo industry through API integration. He will also support the company's work to roll out fast, resilient, and secure implementations and upgrades to the latest Hermes cargo management system (CMS) through automation.

New Leadership Announced for Menzies CNAC



Raymond Lo Menzies Aviation has announced the appointment of Raymond Lo as chief executive of Menzies CNAC. The announcement follows the company's acquisition of a 50 percent stake in Jardine Aviation Services Group

(JASG), which is being rebranded as Menzies CNAC.

With more than 24 years at Menzies Aviation, Lo has spent the last decade as managing director of Menzies Macau Airport Services Ltd. Prior to this, he spent eight years working for Menzies Aviation in Hong Kong.

"We are thrilled that Raymond will be at the forefront of Menzies CNAC – an exciting new joint venture that's set to broaden our footprint in Asia. Raymond's extensive experience and proven track record means that he is perfectly placed to lead our efforts in supporting Hong Kong's rapidly expanding aviation sector," said Darren Masters, EVP – Oceania, SE Asia and China, Menzies Aviation.

NEW DEALS

dnata Announces Enhancements to Global GSE Fleet

dnata has signed deals with leading manufacturers, locking in five-year global framework contracts for new ground support equipment (GSE). The contracts signed at the Dubai Airport Show have a total value of over \$210 million (USD) over their lifespan. Already, dnata has committed to orders worth over \$29 million from the agreements.

The contracts include a planned investment of over \$100 million in GSE for dnata's Dubai fleet.



Currently dnata operates a fleet of 2,500 motorized GSE at Dubai International and Dubai World Central airports, providing services to over 190 airlines.

The GSE will be provided by eight international manufacturers.

Globally, dnata operates over 8,000 pieces of motorized GSE across its ground handling, cargo and catering and retail operations which cover over 130 airports across six continents.



Aviramp Secures Boarding Equipment Orders with Frontier Airlines

Aviramp has clinched £1.2 million of new orders with US-based Frontier Airlines.

The new orders – for nine of its step-free boarding ramps – means the Denver-based carrier has invested nearly £2 million with Aviramp in the last 18 months.

“This latest order means we have now supplied Frontier with 14 Aviramps in total. What’s particularly pleasing is that Frontier have been using our ramps for some time and can see the advantages that safe, step-free and solar-powered ramps bring over traditional steps,” said chief executive and company founder Graham Corfield.

U.S. CBP Selects WFS to Operate Centralized Examination Station for Air Cargo at JFK

Worldwide Flight Services (WFS) has been selected by U.S. Customs and Border Protection (CBP) to operate a new Centralized Examination Station (CES) at New York’s John F. Kennedy International Airport (JFK).

WFS has been awarded a five-year contract by CBP, one of the world’s largest law enforcement organizations and the United States’ first unified border entity, which takes a comprehensive approach to border management and control, combining customs, immigration, border security, and agricultural protection.

When the CES begins its phased opening in Q1 2025, it will become the first Air CES to contain all segments of CBP inspections as well as the first on-airport examination facility at JFK, processing import, export, and USDA (Department of Agriculture) goods.

“The Centralized Examination Station (CES) is a game-changer for U.S. Customs and Border Protection at JFK Airport. The efficiencies realized from this facility will allow CBP to optimize resources and enhance our enforcement efforts to keep bad things, such as dangerous precursor chemicals, goods that infringe on intellectual property rights, and imports that place the American people at risk for their health and safety, out of the commerce of the United States,” said Salvatore Ingrassia, Port Director, U.S. Customs and Border Protection (CBP) at JFK. “The CES is also a win-win for the JFK trade community, as the billions of dollars of lawfully imported goods will move through the JFK network with even greater speed and efficiency.



“We recognize Worldwide Freight Services (WFS) as a global leader in international cargo and ground handling logistics, applaud their forward leaning innovation in the industry, and thank them for their willingness to step up as the CES Operator at JFK Airport,” he added. “We look forward to our continued collaboration with WFS, the Port Authority of New York and New Jersey, our DHS partners, as well as our Partner Government Agencies, as this project moves forward.”

GVAssistance Secures Geneva Airport PRM Services License

GVAssistance has been assisting passengers with reduced mobility at Geneva Cointrin Airport for over 15 years and having recently been granted a license for the PRM business at the airport will continue to do so from 2025-2031.

“Obtaining this concession confirms our expertise in assisting an average of 140,000 people with reduced mobility per year and underlines GVAssistance’s commitment as a competent partner of Geneva Airport,” said Philippe Crippa, managing director of GVAssistance.





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How the Industry is Addressing GSE Maintenance Needs

Data collected in the 2024 Ground Support Worldwide GSE Maintenance Report indicates more personnel and resources can ensure GSE teams keep equipment operating in peak condition.

BY JOSH SMITH

Ground Support Worldwide recently surveyed members of the industry to gauge their approach to GSE maintenance, inquire about current challenges and the average age of GSE fleets, as well as gather input on anticipated changes coming to this segment of the market.

More than three-fourths of those surveyed perform a portion of their GSE maintenance in-house.

Approximately one-third of the respondents said they performed all GSE maintenance themselves. Another 42 percent said the majority of their GSE maintenance is done in-house, while 14 percent said half of their GSE maintenance tasks are

done in-house and half is outsourced.

Just 12 percent of all survey respondents said they rely heavily on outsourced GSE maintenance.

With GSE maintenance responsibilities being predominantly addressed by the company who owns the equipment, there are associated challenges and budget strains.

The greatest challenges reported by survey respondents are sourcing GSE parts and part availability, finding and retraining staff, training and staying current with new technologies, and the cost of GSE parts.

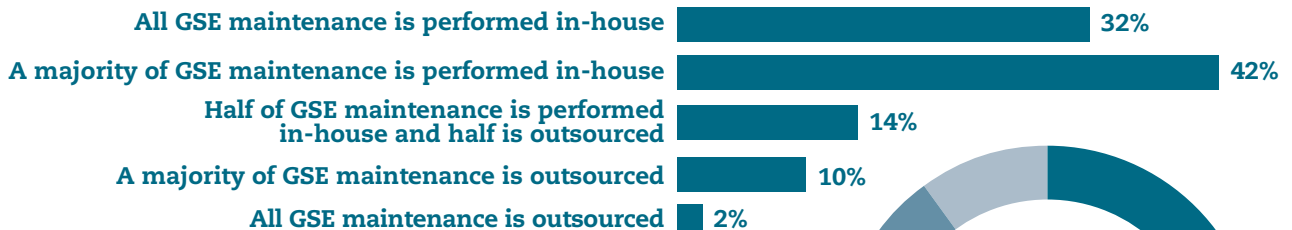
The cost of GSE parts, sourcing parts and the availability of parts put the greatest strain on GSE maintenance budgets, according to those

surveyed. The cost of personnel turnover also takes a toll on budgets as does the cost of tools and equipment.

While these costs must be managed, 60 percent of survey respondents indicated 2024 maintenance budgets were expected to be higher than in 2023, while another 30 percent reported their budgets were likely to remain the same as last year.

The complete copy of the 2024 Ground Support Worldwide GSE Maintenance Report offers an overview of GSE maintenance trends, current GSE fleet compositions, staffing and budgeting trends and technology being deployed to aid GSE maintenance tasks. **GSW**

How does your company address GSE maintenance?

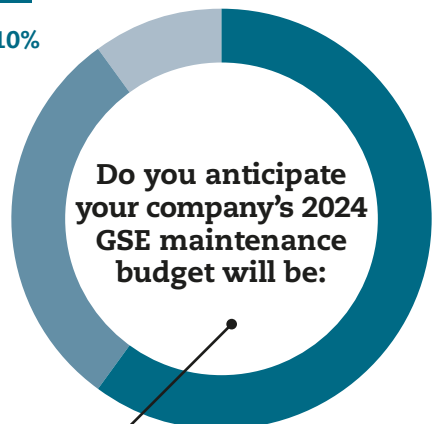


MORE ONLINE

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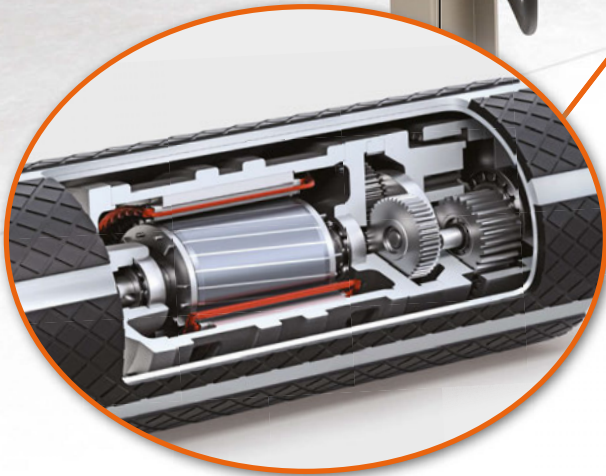
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Fall Protection Solutions for Ground Support and Aircraft Maintenance Operations

Falls from heights are a leading cause of occupational injuries and even fatalities. Vigilance is critical for workers who spend their time working at heights.

BY PHILIP JACKLIN

DIVERSIFIED FALL PROTECTION

Ground support operations and aircraft maintenance tasks pose unique challenges for technicians and personnel. The Occupational Safety and Health Administration (OSHA) requires fall protection to be used anytime a worker is 4 feet or more above the ground, or the next lower walking working surface.

While repairs and maintenance are important for the safety of pilots and their passengers, the safety of the worker performing the repairs is also important. Falls from heights continue to be a leading cause of occupational injuries and fatalities, so vigilance on this issue is paramount for workers who spend most of their time at heights.

Overhead Anchorage for Ground Support Operations

Outdoor maintenance or ground support work can prove difficult to provide fall protection due to the dynamic nature of the work.

Fortunately, there are many mobile fall protection solutions available that can be deployed to provide overhead anchor options for workers. Systems like rigid rail truss systems, mobile davit arms or counterweight jib anchors are some examples of potential solutions. Overhead anchorage solutions can allow workers to perform their

regular work while connecting them into a personal fall protection system should they happen to slip, trip or fall. These solutions will require additional time to mobilize, erect and place in optimum position, but the work is worth the effort if it avoids someone suffering from an accidental fall.

In other instances, bodywork needs on an aircraft might require the use of an elevated platform to access where work will be performed. Mobile elevated work platforms (MEWPs) can help provide an elevated platform for workers with the ability to get the worker exactly where they need to be to successfully perform their task.

Overhead anchorage systems will always be the superior method of protecting workers at heights as they allow for increased mobility and safety factors for users. Unfortunately, most facilities are designed without integrated anchor systems and that's why ladders or MEWPs are commonly used in maintenance facilities, hangars and other similar environments. But just like any other piece of equipment, improper use or negligence to personal safety can prove disastrous for the operators. If MEWPs are to be utilized, let's explore the fall protection requirements for various pieces of equipment.

Non-Articulating Lifts

Is fall protection required on non-articulating lifts (also known as scissor lifts)? Here's the answer nobody likes to hear: it depends.

While federal OSHA code does not explicitly require fall protection in scissor lifts, OSHA does require users to follow manufacturer instructions when operating equipment. Nowadays, almost all scissor lifts have at least one certified anchor integrated into the side rails on the lift. They often even include a small label with a graphic showing a worker in a harness and indicating their tie-off point. If the instruction manual states that a user must use the anchorage when operating the lift, many safety professionals believe connecting a personal fall protection system is now mandated. Cal/OSHA (California's state-run OSHA program) goes even further and mandates that if a scissor lift contains an integrated anchorage, the user must be tied off to it when operating the lift.

Please note that it is never recommended to attach a personal fall protection system directly to the guardrails integrated on an MEWP. Integrated anchor points are rated for 5,000 pounds (or at least 3,600 pounds, depending on the engineered certification process), but guardrails are only rated for 250 pounds of

force on the top rail and 150 pounds of force on the midrails. Attaching a lanyard or self-retracting lifeline (SRL) to one of these rails would not provide adequate anchor strength and the system is likely to fail.

Articulating Lifts

When it comes to articulating lifts (also known as boom lifts), matters are more cut and dry. Federal OSHA states that users must use fall protection equipment on articulating lifts, as the risk of being ejected from the platform is significantly greater than non-articulating lifts. However, OSHA does not clarify if fall prevention or fall arrest is required, so it is up to the employer to decide which method to pursue. The Army Corps of Engineers EM385 standard (that applies to most federal government properties) further clarifies that travel restraint methods must be used; fall arrest equipment is not allowed.

Fall Prevention versus Fall Arrest

Fall prevention is defined as using equipment that restricts the movement of a worker, so they are not subject to a fall, typically utilizing a fixed-length lanyard. If properly specified, the user would be issued a lanyard that is long enough to allow them to walk around their working platform but short enough to not allow them to exit the basket while connected to their anchorage. These systems work excellently, in theory, but actual field usage typically produces mixed results.

Since platform sizes can vary and many pieces of equipment might be used, calculating the exact working distance from the anchor point can be difficult for safety professionals. They often end up issuing adjustable length non-shock absorbing lanyards to users. It is then up to the user to

constantly tension the device to a short enough length that allows them to work productively but restricts their option to travel too far and be subject to falling out of the basket. If the worker neglects to tension the device and is then subject to a fall, their non-shock absorbing lanyard has no means of absorbing fall forces or decelerating their fall. They would feel extreme fall forces to the body that would certainly cause injury and could potentially prove fatal to the worker, depending on their general health or well-being. Humans can generate up to 1,000 pounds of force per foot of freefall. Not to mention that additional forces from coming in contact with nearby equipment or the MEWP itself would be felt by the user.

Fall arrest equipment contains shock-absorption and deceleration elements that prevent the user from feeling all of the forces that naturally occur after a fall. When a worker is using fall arrest equipment, the risk of falling still exists, but there are substantial mitigation methods to ensure the worker feels as little force as possible. In fact, the American National Standards Institute (ANSI) Z359 standard requires manufacturers to guarantee that a fall arrest user will be subject to no more than 1,800 pounds of force if the equipment is being used properly.

Rescue Planning

The use of fall arrest equipment in any application also requires a fall rescue plan, per OSHA. While 911 should be called anytime somebody falls, even if their fall is successfully arrested, an employer must have means to self-rescue the worker. Rescue plans can vary from simple to complicated and they must provide the worker with a means to safely disconnect from their fall protection equipment and be medically evaluated for further injuries.

OSHA requires fall victims to be rescued within 15 minutes of a fall occurring.

No matter the chosen rescue method, it is important to prepare for the circumstance that the user is unconscious and cannot assist in their own rescue. Rescue plans should be incorporated into regular fall protection training given to authorized users. Additionally, rescue procedures should be reviewed each time a worker dons fall arrest gear to make sure the rescue equipment is readily available and in good working condition. Rescuers should be standing by while work at heights is being performed to ensure a prompt and successful rescue.

Conclusion

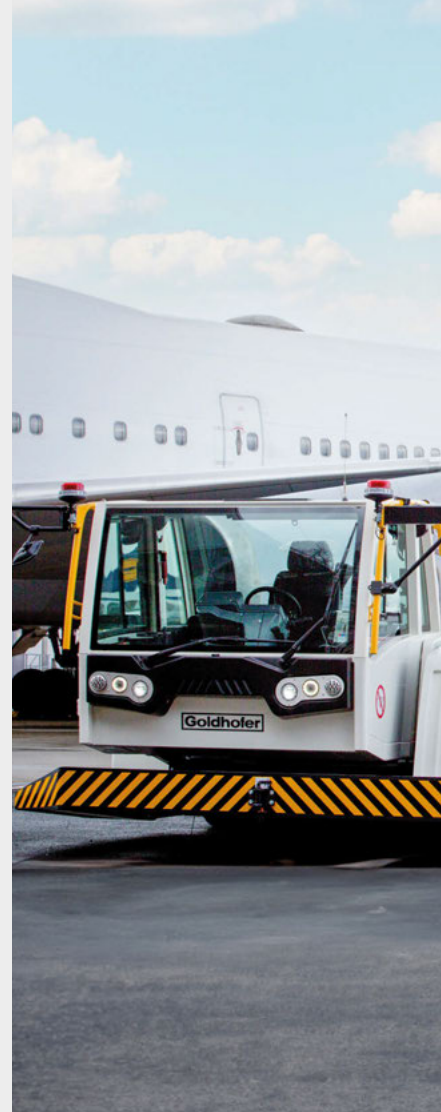
If your facility exclusively uses ladders or MEWPs to perform work at heights and has experienced challenges or injuries in the past, perhaps it is time to evaluate whether an overhead anchorage system would prove beneficial. Companies like Diversified Fall Protection are experienced in retrofitting buildings to incorporate overhead anchor solutions, as well as engineering and designing unique solutions for unique applications. Regardless of the fall protection methods chosen, be sure to empower workers by training frequently and incorporating their feedback to constantly improve the safety of their work environment. **GSW**

ABOUT THE AUTHOR

PHILIP JACKLIN

Philip Jacklin is the continuing education program manager for Diversified Fall Protection. Since 2018, Jacklin has been training workers nationwide on best practices when using their fall protection, and advising safety managers, EHS leaders, plant maintenance managers and other safety professionals on how to create more efficient fall protection programs.





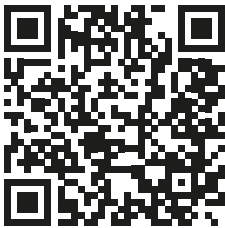
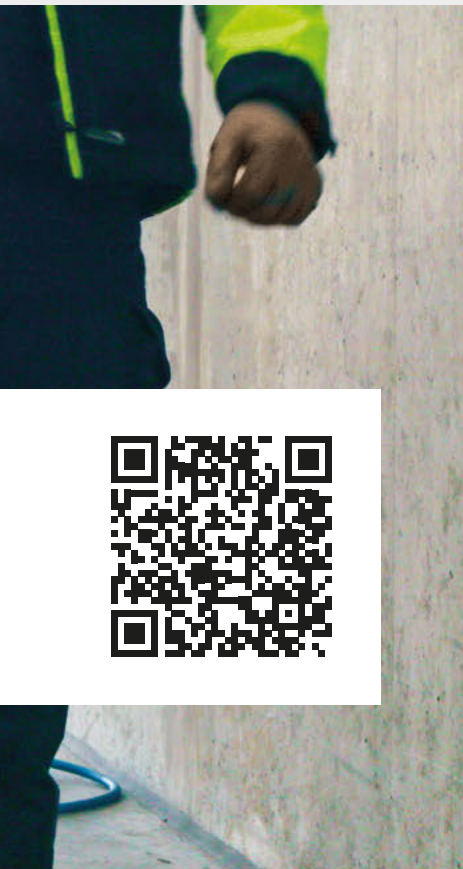
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Telemetry's Ability to Enhance Communication

Effective use of telematics can complement GSE maintenance programs and improve equipment uptime.

BY JOSH SMITH

To ensure ground handling teams are achieving on-time performance goals, and doing so safely, ground support equipment (GSE) uptime is key. Telematics solutions and data management platforms are aiding operational efficiency by allowing ground handling personnel to effectively communicate with GSE maintenance professionals.

For example, officials at EBIS, a Tronair Solution, explain that by using a telemetry platform with EBIS, along with its GPS capability, GSE can be located and important data like meter readings can be recorded.

This allows maintenance personnel to automatically schedule required maintenance for a specific piece of GSE.

"Telemetry is a complement to your GSE maintenance program," explains Krystle Wittig, customer success manager at EBIS. "By installing telemetry on your equipment, EBIS has the ability to partner with the telemetry company to pull the selected data and the GPS location. One key highlight that is an immediate benefit for GSE technicians is the ability to identify where that piece of equipment is located on the airfield."

Telematics technology allows users to get real-time data from the field and transmit it to the maintenance department, explains Matthias Moulinier, product and customer success director at Adveez. This

allows the GSE team to react quickly when the level of a specific metric is not normal.

"This is creating a direct link between operations and the GSE team at the maintenance [shop]," he says.

Telemetry data is crucial for maintenance teams, agrees Santosh Nachu, general manager at EBIS. However, he says relying solely on telemetry overlooks the physical work done by technicians, which requires seamless and accurate data entry.

"Furthermore, with multiple telemetry providers and OEMs adding telemetry, it's impractical for asset owners to manage data across various platforms. An enterprise asset management (EAM) system like EBIS is essential for aggregating both user and telemetry data from multiple sources. Thus, providing decision makers with a single reliable source of truth," Nachu says.

Telematics technology allows users to get real-time data from the field and transmit it to the maintenance department.



How Telematics Assist Ground Ops

When ground operations teams discover an issue – such as a dead battery, needed brake repairs, a broken starter, etc. – they need to be able to communicate that issue with GSE technicians.

An easy checklist with simple questions, accessible on a mobile phone, allows ground ops to report maintenance requests, Moulinier says.

"Adding a picture to the request is allowing the maintenance [team] to see the unit and the issue quickly," he adds, pointing out visual components help technicians better understand the issue.

The EBIS Service Request function, according to company officials, allows the operations team to create a service request and send this request to the GSE maintenance team. Technicians can then decide if a work order is needed. This gives the GSE maintenance team control over the management of work orders, and they can align the work that needs to be done with the current schedule.

"To ensure that the GSE maintenance team has the most current information on a downed piece of equipment, information such as location, asset number, pictures, contact information and most importantly a detailed explanation for the team is needed to be able to fix and/or troubleshoot the equipment," Wittig says.

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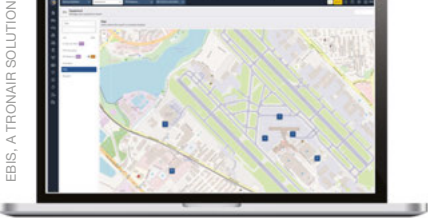
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Telemetry sensors are configurable to track sudden stops – and impacts – and an interactive map in EBIS can be reviewed to show where and when the impact occurred and who was operating the vehicle.

When ground operations teams discover an issue, they need to be able to communicate that issue with GSE technicians.



EBIS, A TRONAIR SOLUTION

“Some of this information can be captured via telemetry, such as GPS location. However, in partnership with a telemetry company having all the information in a single location, such as EBIS, will support the GSE technicians’ ability to reduce time in referencing multiple systems,” she adds.

EBIS officials explain the company’s platform integrates multiple telemetry vendors to consume data designed to improve overall asset management and preventative maintenance programs. EBIS can consume more than 1,000 data points, including key-on, in-gear, run hours, location, throttle percentage, DC voltage, battery management system (BMS) reading for electric vehicles and GPS location, among others.

What’s more, telemetry sensors are configurable to track sudden stops – and impacts – and an interactive map in EBIS can be reviewed to show where and when the impact occurred and who was operating the vehicle.

“Real-time data about trouble codes, metrics (i.e. hour meter, DEF level, e-stop, fuel level, oil pressure, battery temp, etc.) is data which can be retrieved and transferred quickly to maintenance,” Moulinier says.

“Having the pre-check list with a defined list of questions on top of a picture is part of global telematics solutions,” Moulinier says.

Telematics also prevent GSE from being used incorrectly.

“Driving behavior is also critical for maintenance,” Moulinier says. “If we detect harsh braking more often on a GSE, brakes should be checked more often on this specific GSE.”

How Telematics Assist Maintenance Efficiency

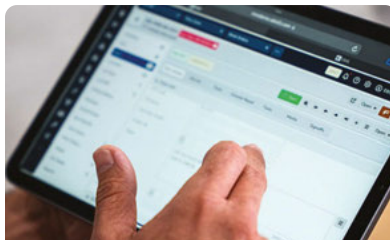
GSE maintenance teams can utilize captured data and telematics platforms to prevent future breakdowns, manage parts inventory, create and adjust preventative maintenance schedules and inform ground operations teams when equipment is in or out of service.

Technicians can utilize calendar- and meter-based work orders to ensure preventative maintenance and scheduled maintenance checks are not missed.

“With 10 years of data, we can now predict when a GSE is going to enter again in maintenance, depending on the brand/model,” Moulinier says. “AI algorithm is helping us to understand future breakdown schedules and make sure those GSE are already at the maintenance shop prior to the breakdown.”

“Being able to retrieve real-time engine hours is crucial to plan your maintenance based on real usage,” he adds.

EBIS officials note their platform allows users to dynamically update preventative maintenance schedules across multiple locations, providing visibility to the entire team.



EBIS, A TRONAIR SOLUTION

Relying solely on telemetry overlooks the physical work done by technicians, which requires seamless and accurate data entry.



ADVEEZ

Telemetry and data platforms also allow maintenance personnel to set up multiple inventory storerooms and have parts stocked as the schedule dictates. Technicians can deduct parts that are in the storeroom and view part availability, pricing and estimated delivery dates, which helps with planning and work order execution.

“With the checklist questions, telematics software can send notification to maintenance to order a new part number,” Moulinier points out.

Ground operations and GSE maintenance teams can view dynamic reports that show the allocation of equipment by location, including both the in-service percentage and out-of-service percentage of the fleet, EBIS officials explain. This dynamic dashboard allows users to drill down into multiple levels, so they can see the history of the maintenance on each piece of equipment.

Another key element to enhancing efficiency between ground ops and maintenance personnel is enabling mobile communication.

Mobile applications can also help ground ops and maintenance teams communicate effectively. EBIS officials say they support a mobile workforce, as the same EBIS capabilities are available in any browser on any device. Moulinier notes operations teams can use mobile devices to report issues in real time to maintenance departments. And conversely, maintenance teams can alert the operations team when a GSE unit is repaired and available to operate. **GSW**

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How Ground Handlers Can Comply with Proposed EASA Regulations

As EASA prepares to publish ground handling regulations, service providers should take steps now to be compliant when the recommended three-year transition period concludes.

BY MARIO PIEROBON

Proposed European Union (EU) ground handling regulations are expected to be published in late 2024 or early 2025 and the European Union Aviation Safety Agency (EASA) has recommended a transition period of three years for implementation after the publication of the regulation.

Grace Period

As a rule, an EU regulation enters into force either the next day following its publication or 20 days after; this is specified in one of the articles of the regulation itself, explain EASA officials.

“However, the date of application can be set to be different from the date of entry into force, to provide the affected stakeholders with sufficient time to prepare for the implementation of the new ground handling regulation,” say officials at EASA.

According to Fabio Gamba, director general of the Airport Services Association (ASA), it is important to understand that what has been published earlier in 2024 is an opinion formulated by EASA as a specialized agency of the European Union.

“This is the termination of a process in which EASA has asked all the stakeholders to give their inputs.

Before it becomes a regulation, there will have to be between 12 to 18 months for the European Commission to review and transform the opinion into a regulation,” he explains. “The work of the European Commission will be on the legal aspects to make sure that the new regulation does not impact on previous obligations of the European Commission or the member states.”

The regulation will be published in 2025, there will be a three-year grace period, and it will not be mandatory for implementation before 2028, explains Gamba.

“Therefore, there are altogether four years to prepare. This offers some flexibility in dealing with the issue and, above all, this allows time to establish contact with the competent authorities,” he says.

New Approach

In terms of the actual content of the rules, there needs to be a certain set of standards that ground handling companies largely already have in place, but there are new elements to prepare to establish compliance, Gamba points out.

“The regulations will not be telling us how to do our job, and that is not their intent, but they will simply

make sure that there is a standard that is being applied consistently,” he says. “This is not coming with new obligations or new requirements. It is just taking what has already been done and making it applied in a slightly different way, in that for the first time the competent authorities are in charge of ensuring that a ground handling service provider (GHSP) is complying as declared. There are not really new obligations, but there will be a different way to look at how compliance is ensured.”

Until now, the ground handling industry operated under self-regulation, with operational arrangements, including safety considerations, primarily addressed in bilateral service agreements between ground handling service providers and the respective aircraft operators, point out representatives at dnata. “Concerning our operations, we anticipate a smooth transition, proactively aligning our practices with the forthcoming regulatory framework,” officials at dnata say.

According to Monika Mejstrikova, director of ground operations at the International Air Transport Association (IATA), there is a feeling of confidence with numerous GHSPs indicating their readiness for this

regulation, which is reinforced by the IATA Safety Audit for Ground Operations (ISAGO) audit reports and results.

“This confidence stems from decades of collaborative industry efforts to establish global standards covering various aspects, such as GHSPs’ safety management systems (SMS), organization, management, training, operational procedures and ground support equipment (GSE) management,” she says. “Many GHSPs in the EU and beyond have already integrated these standards into their operations and management systems, positioning them well to comply with the regulation. GHSPs lagging in adoption will utilize the transition period to meet the requirements.”

Proposed EU ground handling regulations are expected to be published in late 2024 or early 2025 and EASA has recommended a transition period of three years for implementation after the publication of the regulation.



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Swissport was an active participant in the development of the EASA regulations and participates in key IATA and industry groups that develop industry standards.

Oversight

The new ground handling regulation will also embed requirements on information security management (Part-IS), for which a six-year transition period is proposed by EASA, to enable affected organizations to first prepare for the specific ground handling requirements and to benefit from the lessons learned in the other aviation domains that should implement the new requirements at an earlier date (2026), clarify representatives at EASA.

“At the same time, we are proposing a longer initial oversight period for the ground handling requirements (of five years, or 60 months), applicable only for the first oversight, not repetitive, with the purpose of enabling competent authorities to oversee all declared ground handling organizations in their member state at least once,” say EASA officials. “This exceptional, initial longer period for the oversight is considered a feasible solution to accommodate a comprehensive oversight for competent authorities having to audit a large number of ground handling organizations in their state.

“It is, however, not expected that all aerodromes where a ground handling organization provides services are overseen in this initial five-year nor within one oversight cycle.”

A smooth transition is proposed for organizations already providing ground handling services at the time when the ground handling

regulations become applicable, highlights EASA representatives.

“They will have to agree with their competent authority on a period in which they may submit their declaration after the regulation enters into force; however, this should not be longer than 12 months starting from the date of application of the ground handling regulations,” officials at EASA say. “This interval will enable competent authorities to plan the oversight program more easily. Authorities should also consider, for oversight planning, the experience and performance of the ground handling organizations that have already been providing services prior to the date of application of the new ground handling regulations.”

Readiness Preparation

EASA is preparing the document (decision), including acceptable means of compliance (AMC) and guidance material (GM) associated with the ground handling regulations.

“The AMCs and GMs will provide support for the implementation of the regulations. The AMCs and GMs will be published soon after the commission publishes the ground handling regulations (within 1-2 months),” say EASA officials. “We will also prepare an implementation support campaign, in collaboration with the member states, to run during the transition period. This will consist in series of public events (workshops, webinars) and publication of

frequently asked questions to further reach out to organizations affected by the regulations, to answer their questions, to clarify the intent of the regulations and the expectations, and to address the stakeholders’ concerns.”

Swissport was an active participant in the development of the EASA regulations and participates in the key IATA and industry groups that develop industry standards. Looking to transition to the new EASA regulations, Swissport already has an SMS in place and is operating in accordance with the IATA Ground Operations Manual (IGOM).

“As the world’s largest aviation ground services provider, we welcome EASA’s proposal for the implementation of ground handling regulations across Europe,” says Warwick Brady, president and chief executive officer (CEO) of Swissport International. “The regulations will ensure a better standard of operations and will help reinforce the critical role that ground handling plays in aviation safety.

“Together with EASA and ASA, we must make sure the regulations provide a level playing field for ground handlers to deliver safe and sustainable operations that support the wider environmental, social and corporate governance (ESG) agenda of the aviation industry,” he continues. “We now encourage other national authorities to implement the same requirements to deliver a truly global set of standards.” **GSW**

ABOUT THE AUTHOR

DR. MARIO PIEROBON

Dr. Mario Pierobon provides solutions in the areas of documentation, training and consulting to organizations operating in safety-sensitive industries. He has conducted a doctoral research project investigating aircraft ground handling safety. He may be reached at mariopierobon@alphaomega.dev.





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Financing Options for Ground Support Equipment

One solution does not fit the diverse needs of all ground service providers.

BY REBECCA KANABLE

FORTBRAND

Commercial aviation is a complex industry with many variables. Within each segment of the industry, ground handling included, there are many nuances.

For example, just as the needs for ground support equipment (GSE) can vary from one ground service provider to another so too can the solutions for funding GSE.

“Some customers require short-term rentals until they receive delivery of newly ordered equipment, while some customers require long-term leases which are used to permanently fill their operational needs,” says Nicole Romeo, who is a certified lease and finance professional and serves as airport maintenance equipment and ground support equipment sales manager at Fortbrand Services.

“This information is discovered when we sit down with our customers during the onset of their project, allowing us to carefully craft the appropriate lease/maintenance solution that meets their specific need.”

While Fortbrand specializes in GSE and airfield maintenance equipment, as well as equipment maintenance and financing, CSI Leasing provides equipment lifecycle and finance solutions. This range of options provides flexibility for ground service providers to utilize the equipment needed in each individual operation.

Leasing vs. Renting

Leasing is one of the most common options to finance GSE.

Lease options generally range from 12 months up to 10 years. If the term is shorter than 12 months, equipment rental may be a better option.

Jeff Clark, GSE leasing specialist at CSI Leasing, notes equipment rental on a month-to-month basis with no long-term obligation to the renter will generally be more costly than leasing or financing since there is no commitment, or the commitment is low.

“Leasing is a financial option whereby the customer pays for the use of equipment without bearing the risk of full ownership or having to outlay any initial capital investment,” Romeo adds.

The customer, known as the lessee, pays for the use of an asset over a determined amount of time.

At the end of lease term, the customer has multiple end-of-term lease options. They include returning the equipment, continuing to lease the equipment or purchasing the equipment for the fair market value.

Romeo says the terms of the initial contract can be short term or long term, with the most common terms ranging between 6 months to 84 months.

Fair Market Value vs. Capital Leases

According to Clark, two popular types of leases are fair market value (or operating) leases and capital leases.

A fair market value (FMV) lease allows the customer to use the equipment for a pre-arranged time for a fixed monthly payment. At the end of the term, the lessee has the option to buy any or all of the equipment on lease at its then-current fair market value, return the equipment or extend the agreement for an agreed upon term and rental rate.

“The leasing company invests a residual value in the equipment, so the customer effectively pays less than the original equipment cost over the initial lease term. Leasing companies are able to do this since they own the equipment at the end of lease and can then refurbish and resell it in the secondary market, if they have the means to do so. With an FMV lease, the leasing company takes the risk of technological and economic obsolescence during the lease term and the lessee pays only for its period of usage,” Clark says.

He adds at CSI, company representatives find that the fair market value and rental structures are the most common in the industry and satisfy most needs.

“Terms are flexible under the fair market value option and can almost always accommodate a customer’s needs,” Clark says. “Our customers typically request monthly or quarterly payment structures.”

CSI includes equipment disposal in fair market value leasing, which Clark says provides a significant savings in total cost of ownership savings.

“The customer doesn’t need to worry about stockpiling or selling decommissioned GSE, our subsidiary that specializes in the secondary market handles all of these services in-house,” he explains.

Looking at a capital lease, also known as a \$1 buyout, Clark explains this is similar to a loan where the customer owns the equipment at the end

of the lease for a nominal payment. Typically, he says a capital lease will have a higher monthly payment compared to a FMV lease.

Both FMV and capital lease structures fix the rental rate for the duration of the lease term, so the lessee is protected from volatile interest rate environments. However, Clark says changes in interest rates can affect rental rates in the future in the event the lease is extended, unless the lease specifies a fixed rate for an extension.

“Fair market value leases work best for companies that require flexibility in their GSE fleet. If needed, equipment can be moved to other locations, upgraded during the term of the lease, or extended if the life of the equipment will be longer than

initially expected at the time the contract was initiated,” says Clark.

Leasing is also beneficial for organizations with international locations, he says, noting that CSI leases in more than 50 countries, giving customers a centralized way to manage their GSE worldwide.

Different leasing companies may use different terms and have different options.

Both Fortbrand and CSI (through its alliance with Tandem) offer sale leasebacks and sale leasebacks with refurbishment.

A sale leaseback is when a company purchases a customer’s existing company-owned equipment for a set price and leases it back to the customer. A refurbishment release (or sale

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Ground Service Providers

leaseback with refurbishment) is when a company purchases a customer's existing company-owned GSE for a set price, refurbishes it based on an agreed upon scope of work and releases the refurbished GSE back to the customer.

Fortbrand also has a turnkey eGSE lease, which includes customizable battery options and charging infrastructure.

"At Fortbrand, we view our lease offering as more than just a commodity or a solution that we dictate to the customer. In conjunction with our customers' input, we craft value-added solutions to meet their needs which include budgetary needs, contract lengths, contractual documentation terms and the ability to renegotiate during the mid-term or end-term," says Romeo.

Financing To Include Maintenance

Financing can be structured to include GSE maintenance and servicing.

Through a strategic alliance with Tandem GSE, CSI can provide organizations with factory-trained GSE technicians that can solve many issues that can often occur in the field.

"We also provide an option for Tandem to handle all scheduled and unscheduled maintenance of equipment both during and outside the period of warranty," says Clark.

Fortbrand manages and performs preventative maintenance and offers different levels of management and maintenance offerings tailored to meet customer needs.

"Customers who rely on us to maintain their leased GSE, generally have a better customer experience, as they have increased daily dependability, instant access to maintenance records, and in some cases, if needed, access to back-up equipment," says Romeo.

Considerations Before Signing a Contract

Before making a final decision and signing a financial agreement, Romeo and Clark advise taking the following considerations into account. Clark says, leasing is part of an overall equipment management strategy.

"It helps organizations maximize their budget, provides predictable payments, and offers a great deal of flexibility," he says.

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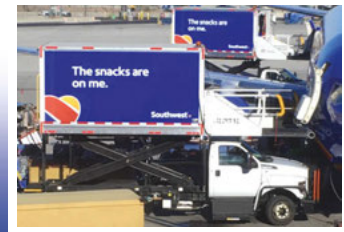
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CSI Leasing provides airlines, airports, air cargo facilities, fixed-based operators, ground handlers and more with financial and lifecycle solutions.

However, Clark adds it's important for any organization thinking about leasing to do their homework and ask the right questions before choosing a leasing company.

"Some leasing companies charge administrative, restocking or end-of-lease fees, so it's important to consider this when calculating the overall cost," says Clark.

Other questions to ask he says include: "Do they have fair end-of-lease terms? Can I make asset-level decisions? Do they have international capabilities?"

"Taking time to find the right leasing company for you will pay off in dividends down the road," Clark says.

Romeo points out transparency is the most important aspect of



CSI LEASING

entering into a leasing arrangement.

"We recommend our potential customers ask as many questions as possible. In addition to the

payment, be sure to understand all the terms and conditions that could affect the total cost of leasing," Romeo says. **GSW**



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Electric Tow Tractors Modernize Ground Support Operations

Waev's Tiger Li-ion unlocks benefits only found in electric vehicles.

BY REBECCA KANABLE

With an increasingly growing focus on aviation's sustainability, stakeholders throughout the industry, including ground service providers, are looking for ways to reduce their carbon footprint.

The Tiger Lithium-ion (Li-ion) tow tractor assists with these goals. The Tiger Li-ion is clean for the environment, low maintenance for technicians and provides safety features only found in electric vehicles (EVs).

"While the bulk of aviation emissions are from the aircraft itself, accessibility of sustainable jet fuel is still decades away. Converting from ICE [internal combustion engine] to electric GSE [ground support equipment], like Tiger Li-ion tow tractors, is a step that airports can make today," says Gerry Hoadley, director of ground support equipment at Waev Inc.

"Compared to a single internal combustion tractor that emits an average of 3,250 kilograms of CO₂ annually, an electric tow tractor emitting zero CO₂ will assist with reducing an airport's overall pollution output and contributing to the aviation industry's sustainability goals."

What is the Tiger Li-ion?

Tiger's baggage and cargo tractors have a towing capacity of up to 60,000 lbs. Hoadley says they can also be utilized for moving small aircraft within their towing capacity.

"Our vehicles provide the same form factor as popular tractors on the market, with common parts that simplify operations and maintenance," says Hoadley.

The chassis consists of a 100-percent steel body-on-frame with bolt-on components.

"The Li-ion Tiger design offers capabilities, operations and serviceability that's familiar and proven in the ground support equipment space, providing a seamless experience for operators looking to electrify their established fleets with next-gen tractors. This familiar design

requires little to no specialized operator training and includes many common GSE parts, simplifying operations and maintenance," says Hoadley.

For operator comfort during the workday, ergonomic bucket seats are standard throughout the Tiger tow tractor lineup. Hoadley notes Tiger tow tractors offer the most spacious and operator-friendly cabs on the market.

Optional features include a full cab with doors as well as a heating and fan system. Additional options include bumpers, hitches, beacon lights and turn signals.

Sustainability

The Tiger Li-ion can be equipped with a 36kWH or 48kWH power module and offers flexible charging from an on-board charger that's compatible with single-phase outlets to an off-board DC fast charger, according to Hoadley.

The batteries use LiFePO₄ technology, which Hoadley notes is safer, more stable and more reliable than other lithium chemistries. At the end of their serviceable life as power modules, the LiFePO₄ cells can be utilized for energy storage in things such as power walls and off-grid power sources.

Low Maintenance

Hoadley points out another advantage of Li-ion-powered equipment is it's less costly to operate and maintain.

"Li-ion batteries last significantly longer than flooded lead-acid or AGM [absorbent glass mat] batteries – contributing to a lower total cost of ownership (TCO). In addition to the longer battery life, Li-ion vehicles save significant money and time because there are fewer ongoing costs due to reduced routine maintenance to the vehicle or the batteries. Unlike ICE vehicles, EVs don't require traditional maintenance like oil changes, filter replacement or coolant flushes. And Li-ion batteries don't require posts to be cleaned or fluid to be monitored or added,

reducing maintenance and making them much more reliable,” he says.

Furthermore, Hoadley notes the regenerative braking of the Tiger Li-ion lessens on brake wear and boosts vehicle efficiency.

Safety

Vehicle electrification facilitates the ability to offer smart technology like the patent-pending anti-rollover system exclusive to Tiger tow tractors and programmable acceleration/deceleration and top speed.

“This technology allows users to improve their operations while exceeding traditional safety standards,” Hoadley says.

Li-ion tow tractors also incorporate standard safety features such as seat belts and high visibility LED lighting, as well as brake interlock, which forces the operator to be at a complete stop and the brake fully depressed before shifting to forward or reverse. Further increasing productivity and safety, onboard diagnostics help rapidly call attention to an issue so that it can be addressed immediately.

Conversion Kits

Not everyone is ready to dive into lithium-ion, and Hoadley says Waev officials understand this.

That’s why Waev developed the Tiger Repower conversion kit.

The Tiger Li-ion Tow Tractor debuted in 2022 and Tiger Repower Li-ion conversion kits for legacy gas tow tractors were introduced by Waev in 2023.

“Compatible with multiple tow tractors, the conversion kit gives legacy gas tow tractors a new, sustainable life with lithium-ion power – extending the life of current gas-powered fleets, saving thousands, cutting emissions and improving safety,” says Hoadley.

The kit takes 8 to 12 hours to install and includes a rear axle and drive shaft, motor with mounting brackets and hardware, dashboard with keyless power switch, LED headlights and tail lights, complete service brake system, parking brake system, brake switch, accelerator pedal, seat belts and full tractor wiring harness.

Lastly, for customers not ready to adopt Li-ion technology, Waev offers the Tiger G [Gas] series tractors.

“These tractors are powered by Kubota gasoline engines backed by GM automatic transmissions. The nice thing about these units is that they can be easily upfit to our Li-ion drive system when the time comes, utilizing our Tiger RePower kit which provides customers with everything needed to upgrade legacy ICE-powered tractor fleets,” says Hoadley. **GSW**

Tiger Li-ion tractors can tow up to 60,000 pounds of baggage or cargo.



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CHARLOTTE OF AMERICA

The CPB35E is designed to be an affordable 80V AC electric-powered pushback tractor. The unit offers the advantages of electric power for pushout operations including quiet ramp operation, no smoke or fumes and limited maintenance. Suitable for pushout operations on aircraft ranging from 737s to 757s, power for the main drive is supplied by two 35 hp AC motors. The pushback tractor utilizes four-wheel drive and has excellent visibility with a maximum speed of 7 mph when empty. Drawbar capacity is 24,000 lbs.

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TUG ALPHA 1
TEXTRON GSE

The TUG ALPHA 1, a narrow-body pushback, is purpose-built for productivity, safety and operator experience. Available in both gas and lithium, the TUG ALPHA 1 features an exclusive center-drive design for superior tow-bar visibility, ground access maintenance points and ergonomic operator controls.

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MODULAR CHASSIS AND WAGON SYSTEM
STINAR LLC

The Stinar Modular Chassis and Wagon System offers a 48v electric chassis with a range of 40 miles and a load capacity of 5,000 lbs. The 17hp, 13kW electric motor allows the chassis to carry a multitude of different modular units and function as a small to mid-size tow vehicle with towing capacities of 10,000 lbs. The modular interchangeable units are adaptable to both the chassis and wagon systems, ranging from lavatory service, potable water and baggage to passenger transport and maintenance with a full line of options.

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BOBTAIL TRUX WILCOX GSE

The Bobtail enhances the efficiency and safety of airport towing operations. With the Bobtail, GSE can be moved effortlessly and securely, ensuring smooth and seamless ground handling operations. The Wilcox GSE Bobtail TRUX is manufactured using the finest materials and adheres to the highest industry standards, ensuring durability and long-lasting performance.

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COMET 4 FC MULAG FAHRZEUGWERK GMBH U. CO. KG

This airport towing tractor offers a hydrogen fuel cell drive and up to 30t trailing load (drawbar pull 20 kN), 30 kW axle-integrated AC motor with 15 kW continuous power and a driving speed up to 18 mph. The tractor features a zero-emission powertrain to implement the increased environmental requirements for GSE while still having high availability and short refueling times.

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The AlphaCart is engineered with rotomolded construction for strength, durability and corrosion-resistance. Interlocking framework allows for easy repairs, while the channeled shelving, interior lighting and integrated handles enhance safety and performance.

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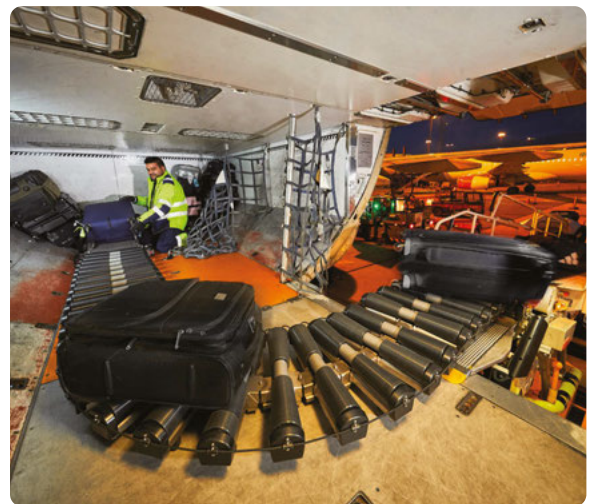
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Power Stow Rollertrack Conveyor is a versatile belt loader extension that is built into a mobile belt conveyor to facilitate the loading and offloading of passenger baggage and cargo in the aircraft cargo hold. It reaches inside the aircraft's cargo hold, makes the 90° turn and delivers bags to the ramp agent inside. The system has proven to reduce body injuries and provides users an option for faster baggage handling times.

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ETT-8X

EAGLE TUGS, A TRONAIR COMPANY

The ETT-8X Electric Tow Tractor has a fully electric powertrain. Backed by the Eagle 3-year/3,000-hour warranty, the ETT-8X is equipped to pull up to 115,000 lbs.

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**BAGGAGE TRACTOR TIG-50
AEROSERVICIOS USA INC.**

This Tow Tractor is a proven product with 3,000 to 6,000 lb. (3.3 to 26.7 kN) drawbar pull. It is available with multiple engine packages to meet various environmental conditions. It is equipped with steel unibody frame construction for durability and reliability.



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Spotlight on: Ozgur Yesiltepe

BY JOSH SMITH

Ground Support Worldwide:
What attracted you to a career in the ground support industry?

Ozgur Yesiltepe: I was initially drawn to the ground support industry due to its dynamic nature and the critical role it plays in ensuring the smooth operation of air travel. The idea of being part of a team that facilitates the safe and efficient movement of aircraft fascinated me.

GSW: What has kept you engaged in the industry?

OY: The ever-evolving nature of the ground support industry has kept me engaged throughout my career. Every day brings new challenges and opportunities for innovation, whether it's adopting new technologies or finding more efficient ways to handle operations. Additionally, the camaraderie among colleagues and the sense of pride in contributing to the seamless functioning of air travel have been major motivators.

In my current role as head of NextGen GHS, it is very exciting to be leading its expansion from our initial locations in Billings, Montana (BIL) and Providence, Rhode Island (PVD) to adding operations in Austin, Texas (AUS); Portland, Oregon (PDX); Richmond, Virginia (RIC); and Seattle, Washington (SEA) to provide a range of ground handling services at those airports.

GSW: What's the best advice you've been given while working in this field?

OY: The best advice I've received is to prioritize safety above all else. In an industry where precision and efficiency are paramount, ensuring the safety of personnel and those

aboard the aircraft should always be the top priority.

GSW: How have you seen the ground support industry change the most during your career? Has this change been to the benefit or detriment of the industry?

OY: One significant change I've witnessed is the rapid integration of technology into ground support operations. Automation, data analytics and advanced equipment have transformed the way tasks are performed, leading to increased efficiency and productivity. Overall, these changes have been beneficial to the industry, allowing for smoother operations and improved safety standards.

GSW: What's the next big thing coming to the ground support industry? What type of an impact will it make?

OY: The next big development in the ground support industry is likely to be further advancements in sustainability and environmental stewardship. With a growing emphasis on reducing carbon emissions and environmental impact, we can expect to see innovations in electric ground support equipment, renewable energy sources, and eco-friendly materials. This shift towards sustainability will not only benefit the environment but also enhance operational efficiency and reduce operating costs in the long run.

GSW: What would you say to encourage someone to join the ground support industry?

OY: I would encourage anyone considering a career in the ground support industry to embrace the



Job Title: President

Company: NextGen Ground Handling Services

Location: Orlando, FL

Years of Experience in Ground Support: 29

Years with Current Company: 2

Previous Employers in the Industry: Various ground handling companies

dynamic and rewarding nature of the work. It offers a unique blend of hands-on experience, technical expertise and teamwork, making it an exciting and fulfilling field to be a part of. The opportunity to play a crucial role in the functioning of air travel, coupled with continuous learning and growth opportunities, makes it an excellent choice for those seeking a challenging and rewarding career path.

GSW: Any additional comments?

OY: I believe that the ground support industry holds immense potential for innovation and growth, particularly as we navigate the challenges and opportunities presented by a rapidly evolving aviation landscape. By staying adaptable, embracing change and prioritizing safety and sustainability, we can continue to drive positive advancements in the industry while ensuring a seamless travel experience for passengers worldwide. **GSW**



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