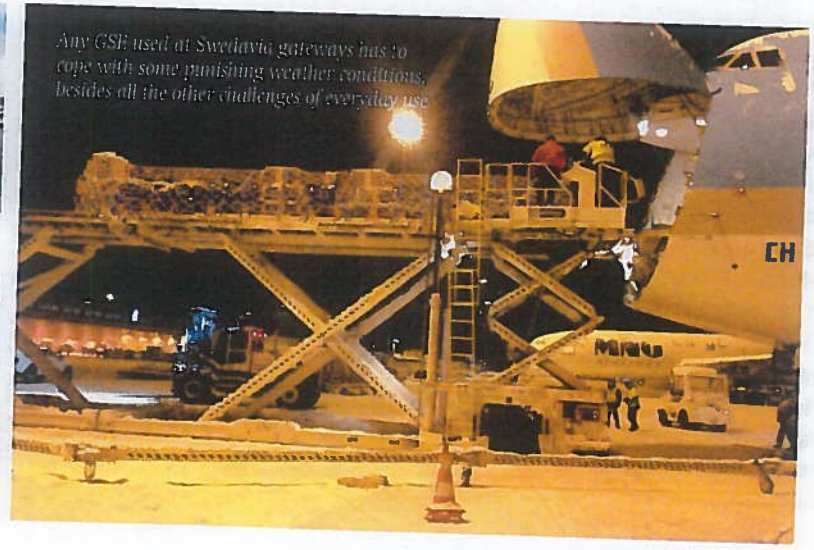
Maintaining operational readiness

In this article, *Airside International* examines the issues of GSE maintenance from three different angles: we talk to a GSE supplier for whom equipment maintenance forms a key part of its overall offering; a handler, for whom maintenance of GSE is an important ongoing consideration; and an airport operator that is wanting to see all GSE on its ramp in good, clean working condition

Goldair operates a wide range of GSE for its Greek handling operations



Any GSE used at Swedavia gateways has to cope with some punishing weather conditions, besides all the other challenges of everyday use

A number of the big GSE suppliers offer through-life maintenance services as an important part of their equipment provision, realising the importance to their users of keeping units running at all times. Servicing and repair also represent another business line and revenue stream for enterprises always on the lookout to go one better than the competition.

One of the major players in the GSE market is TCR, the Brussels-headquartered GSE rental and operational leasing specialist. It believes it offers something slightly different than other maintenance service providers in the form of what Pieter Belien, general manager Belgium, describes as the company's "European, yet local" approach.

"TCR can," he says, "react more efficiently to customer requirements in terms of lead times for spare parts and specialised problem-solving. Spare parts and technical expertise are available widely in our network for different and wide product ranges."

Depending on the size of the airport, a local workshop can be established for customers who desire a well-established TCR maintenance capability close by. For smaller gateways, the company makes use of mobile workshops to conduct GSE maintenance and repair operations before moving on.

"Besides the quick reaction time, TCR maintenance plans are manufacturer-approved, which guarantees sustainable and qualitative maintenance," Belien notes. Moreover, through its fleet management system, TCR takes care of maintenance planning and follow-up that complies with increasingly stringent regulations regarding GSE operations.

The company's fleet management system is designed to offer users the means of optimising their GSE fleet's availability and efficiency by offering access to detailed operational and financial fleet data, and it represents an important contribution to TCR's maintenance service effectiveness. All of a customer's preventive maintenance is pre-planned into the TCR fleet management system and it also records all relevant ongoing servicing data, including the purchase and fitting of any spare parts.

The system allows for full stock and spare parts management, automated orders and pre-programmed minimum stock quantities – allowing users to "proactively manage their stock levels of critical parts".

At ground level, TCR boasts extensive stock of spare parts, located around Europe and based on regional and local requirements. Besides that, spare parts exchanges carried out across Europe help the company to overcome any spare parts shortage problems and otherwise long lead times on a continental scale. Plus, Belien confirms, TCR has signed framework deals with the

big GSE manufacturers in order to formalise within service level agreements such details as equipment lead times, minimum stock, quality and pricing.

PLANNING AHEAD

"Next to adherence to maintenance intervals, the content of maintenance plans is also key," Belien suggests. "Within TCR, they have been approved at the European level by GSE manufacturers in order to guarantee the highest possible equipment up-time. Sooner or later, any lack of maintenance leads to more breakdowns, lower availability and therefore, aircraft delays."

Changes in the types of GSE being produced have also had an impact in terms of maintenance and repair. For example, the now much more common use of battery-powered GSE has created a slightly different challenge. The use of electric steering and the like can make life easier and safer for operators and aircraft, but the increasing complexity of these systems also requires engineering specialists when it comes to repairing or maintaining the equipment.

"Electric GSE requires an operational discipline just to charge batteries," he remarks. "Once a battery is empty, operators have to re-charge them again. At airports where GSE is used intensively, a combination of electrical and diesel equipment might be an operationally better alternative." But, for every customer and for every station there are differences in GSE and the way it is operated, and these factors will create slightly different challenges in terms of maintenance and repair.

PROACTIVE MAINTENANCE

"Preventive maintenance at regular intervals is key to maintain GSE up-time, and to decrease total cost of ownership of equipment. It's all about availability being the driver for efficient airport operations," Belien explains. Ongoing servicing as well as unexpected repairs are issues that need to be at the forefront of GSE users' minds.

The maintenance of Greek aviation services provider Goldair Handling's GSE is carried out by its own team of trained and specialised personnel, informs administration manager John Alexanian. That team consists of 17 technicians and four administration/management personnel all based in the Goldair workshop at Athens International Airport. All Goldair's GSE maintenance is carried out by the handler in those facilities at the Greek capital's primary air gateway.

About half of the work is of the pre-scheduled servicing variety, undertaken according to the equipment manufacturer's recommendations. The remaining 50% of work is reactive in nature, and is undertaken in response to equipment failures or malfunctions. "Of course, proactive maintenance is the ideal," Alexanian remarks. "However, there is a combination of product life-cycle, equipment misuse and difficult environmental conditions (most notably, this can be a problem for island airports or those located close to the sea) that makes reactive maintenance essential."

A good deal of GSE has a very long operational lifespan, thus making effective maintenance and refurbishment essential. "But you can't avoid acquisition costs just by effective maintenance, or the other way around," he insists. "The ideal is to find the right balance between these two, because sometimes effective maintenance might look cheaper – since it involves smaller amounts of money – but if you add all the small values together, you might come to the conclusion that you are on the wrong track. Plus, you have to consider the airline's needs or trends, such as new, different aircraft types that have to be handled, changes that make new GSE acquisitions essential."

Like Belien, Alexanian notes the evolving nature of GSE and the impact that this can have from the view of handlers needing to keep their equipment in the best possible condition. "The increasing complexity of some GSE types has certainly made the maintenance job harder, because technicians are trained to follow the GSE manufacturers' technological service and repair requirement protocols. Thus, for example, the move to battery-powered GSE has made maintenance easier, but in the case of a malfunction, costs are much higher."

THE AIRPORT OPERATOR

As well as the GSE supplier, GSE operator and maintenance contractor, there is another party with a vested interest in ensuring that GSE is well serviced. An airport authority has to continuously ensure that its handling companies and their equipment meet both nationally determined regulations and required airport standards, notes Per Lindgren, the ground handling manager at Swedavia, Sweden's national airport operating authority that has control over all of the nation's big air gateways.

Equipment operators are responsible for the maintenance of their equipment, of course. As in other countries, in Sweden some operators rent premises and workshops on-airport for carrying out maintenance of their GSE, while some hire premises outside the airport. Swedavia has no special requirements for the workshops, but all vehicles have to be inspected annually according to airport requirements. Staff performing these inspections must hold approved certification to undertake these inspections, Lindgren confirms. ■

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