Middle East Airlines
Beirut’s success story

What’s new onboard?
Amenity kits and IFE for safety

A gem of a design
Inside the cabin of FAI’s Project Pearl
All parked up with nowhere to go

As airline operators grounded their fleets due to the COVID-19 pandemic, some took advantage of the enforced hibernation to undergo some opportunistic maintenance. Alexander Preston looks at the TLC measures these aircraft have enjoyed.

It is not overstating the fact to say that the scale of the Coronavirus pandemic is unprecedented. You just have to look at the job cuts, the massive financial losses reported by airlines and the supply chain, and the sheer collapse of passenger demand to see its ongoing impact.

Then there are the sweeping travel restrictions, which come and go like the tides. These have virtually eliminated international travel and severely curtailed domestic and regional flight operations leaving airlines with large fleet numbers, but few routes to serve.

To deal with the suspension of flights, airlines have been forced to ‘temporarily’ place most of their fleets into hibernation. A move AirAsia called “the right thing to do to ensure the wellbeing of our guests and employees, which will remain as the top priority of our business during this challenging time,” when hibernating the majority of its aircraft.

According to travel data analysts at Cirium, at the peak of the crisis in March, 16,800 passenger jets (64% of the total fleet) were classified as stored.

As of 10 August, Cirium classified a total of 8,750 widebodies (43%), narrowbodies (29%) and regional jets (37%) as having in-storage status, while nearly 17,500 were in service. More than two-thirds of the global fleet has been in storage since late March 2020.

By mid-April, almost 11,000 single-aisles had been placed into storage, but this figure has since declined to fewer than 5,000 (including nearly 400 still-grounded 737 MAX aircraft), states Cirium.

It’s a gradual recovery that STS Aviation Services, a division of Florida-based STS Aviation Group, is witnessing. The company is growing its C Check services team and expanding its Airbus tooling as work ramps up inside of its base maintenance facility in Melbourne, Florida.
“We are beginning to see more and more commercial aircraft come out of storage,” said Mark Smith, President of STS Aviation Group. “When that happens, a C Check is often required before an aircraft can return to service. Right now, our team in Melbourne is turning C Checks over very quickly, and that spells immediate revenue for our commercial clients who are all eager to get their aircraft back in the sky as soon as possible.”

TO REST IS TO WALK FURTHER
But what of those aircraft stuck in hibernation mode at various airports around the world?

On 26 March the AirAsia Group, comprising the short-haul AirAsia carriers AirAsia Malaysia, AirAsia Philippines, AirAsia Thailand, AirAsia Indonesia, AirAsia India and the medium and long-haul AirAsia X brands AirAsia X Malaysia and AirAsia X Thailand, placed most of its 282 aircraft fleet into hibernation.

The subsequent drop in capacity contributed to a 98% year-on-year decline in airline revenue, before the gradual resumption of domestic operations from the end of April as travel restrictions eased. AirAsia X as a group is expected to remain in hibernation mode in the near term.

“Our fleet of aircraft may be in hibernation, but there is still much to be done to maintain these technologically advanced pieces of machinery. Our engineers have to make sure that all aircraft will be kept in excellent condition when we are ready to take to the skies again,” commented Banyat Hansakul, Head of Engineering for AirAsia Group, in April.

Instructions as to what maintenance procedures are needed during prolonged parking can be found in Chapter 10, Parking and Mooring, of the Aircraft Maintenance Manual (AMM). Failure to follow the preservation procedures can lead to deterioration and damage of components and finishes. For example, according to Kelvin Boyette, President and CEO of Latitude Aero, mould can start to form on an improperly stored leather airplane seat in about a month.

Improper storage of a plane or its seats can range from a non-climate-controlled storage facility to an aircraft that has been ‘fogged’. To maintain maximum performance, all general, commercial and corporate aircraft have to be properly cleaned and remediated of any mould, corrosion, and oxidation,” he says. Services Latitude Aero can accommodate.

No easy task, however, for an airline which must perform the prospect of maintaining all these aircraft, there is the small matter of choreographing them into their respective parking areas.

KL blogger and Community Manager Annemieke Cornielje describes the parking arrangements. “The size of an aircraft is a key factor, of course. You need to prevent aircraft from blocking each other, for instance, if you need to tow them away for maintenance.” Consequently, one of the parking criteria is that there should be enough space between aircraft so that they can be easily moved for

As an operator of an all-Airbus fleet, AirAsia followed the advice procedures recommended in the Airbus AMM, but also took the opportunity of the hibernation period to deep clean and upkeep the maintenance of the cabin. According to the airline, all the removable panels in the cabin were opened and thoroughly cleaned, including the cabin wall panels, the galley, lavatory, and the cockpit overhead panel. The carpet and the curtains were washed, and all surfaces in the cabin such as the armrests and tray tables were wiped with a high-grade disinfectant.

“Maintaining such a big fleet of aircraft is definitely not an easy feat, even putting these aircraft into hibernation requires around-the-clock work and careful coordination among our team of engineers and ground teams.

“But to rest is to walk further. When this pandemic is over, we will be ready to carry our guests again, and it is paramount that we keep these aircraft safe and well-maintained for our guests in the meantime,” said Banyat.

KEEPING ACTIVE
It’s been a similar picture with KLM and Qantas.

According to John Walker, Head Maintenance at Qantas, a team of cleaners have given the interiors of its fleet an extensive “deep clean” that involves using high-grade disinfectant to wipe down surfaces including in-flight entertainment screens, armrests, tray tables as well as giving the carpets a good vacuum.

In early April, KLM found itself parking all its Boeing 777-200s, most of its Boeing 737s and many of its Embraer 175s and 190s at Schiphol Airport in Amsterdam.

KLM has 13 different models in its fleet of over 100 aircraft, and before you even tackle the prospect of maintaining all these aircraft, there is the small matter of choreographing them into their respective parking areas.

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inspection.” However,” she adds, “all aircraft types need to be grouped together as closely as possible, to ensure that parking and maintenance can be carried out as efficiently as possible. These are all factors that need to be taken into account.”

Cornielje says that the airline initiated its ‘active storage programme’ which ensures its grounded aircraft are protected against the Dutch weather. For any grounded aircraft, this includes cleaning the cabin which is also aired and dried. Before returning to operation, the aircraft undergoes a comprehensive testing programme to prove its airworthiness.

For Eways Aviation, this period of hibernation is the perfect time for airlines to overhaul their cabin products and bring forward any long-term maintenance.

According to a spokesperson for the company, which specialises in asset management, parts supply, and the exchange/ loan and lease of aircraft parts, “If the aircraft isn’t flying then you might as well expedite cabin plans. We have seen flag carriers like Etihad bring forward cabin improvements to ensure that resumption of services won’t be interrupted by maintenance cycles in the future. Thus, passengers can expect to experience quite plush cabin environments when they travel in the near future.”

Although unable to disclose the type of maintenance the company has undertaken on behalf of its customers, which includes the likes of Air Astana, Aircalin, Ethiopian, TAP Portugal and others, a spokesperson at Eways Aviation believes that “responding to changing passenger demand is a bit of a headache for airlines right now – you can’t really get an aircraft in the sky when it’s in remote deep storage in the Australian outback.”

“Right now,” they continue, “as demand returns, it’s a race to see which carrier can bring their aircraft back online and into the market before the others. We will see some dramatic market share shifts in particular regions (like Southeast Asia) in the coming months.”

So, is the supply chain/spare parts market-ready for such reactivation? It seems it’s a mixed picture.

**A HIVE OF HIBERNATION**

According to a spokesperson at Eways Aviation, “the aviation spare parts market has some unique challenges on the horizon as the industry returns to service. A big one is that due to less demand, airlines are more likely to operate more fuel-efficient newer aircraft over older variants (Boeing 787 over 777). This will lead to an oversupply of grounded airframes that can be stripped of parts, effectively flooding the market with availability. This will mean that the spare parts market will take longer to recover despite more aircraft in the sky.”

They continue: “First, airlines will require MRO companies to operate aircraft. However, due to the slow return to normal, MRO firms won’t exhaust their onhand spare parts for a significantly longer time. This lead time means that spare parts traders and AOG providers who lack parts will be hampered despite an uptake in business.

“Cabin parts availability will follow the same trend. With fewer new aircraft ordered this year, parts suppliers have less new airframes to stock and plenty of availability.”

In Abu Dhabi, airlines have worked closely with Etihad Engineering, the maintenance, repair and overhaul (MRO) arm of Etihad Aviation Group, to bring forward maintenance work that was initially planned towards the end of the year.

All aircraft parked at the facility will undergo preservation maintenance while under the care of Etihad Engineering to ensure that they remain serviceable in accordance with the manufacturer’s guidance.

Every aircraft arriving at the facility for maintenance or parking undergoes a deep cleaning process by the disinfection team before any work commences. The team wear personal protective equipment and use a cleaning chemical well known for destroying viruses and bacteria, including COVID-19. It takes four hours to clean a narrowbody aircraft and eight hours for larger aircraft.

Taking advantage of the hibernation of its aircraft, Etihad Airways collaborated with Etihad Engineering on a full cabin refresh on all its mixed fleet of 96 passenger aircraft. Etihad’s current fleet includes Airbus A320 family, A380, Boeing 787 family and Boeing 777 family aircraft.

The refurbishment included cabin renovations, interior detailing, seat repairs and a full sweep of the in-flight entertainment system.

As Frederic Dupont, Vice President Technical Sales & Customer Service, Etihad Engineering, stated: “We have taken advantage of the grounding period and used it to carry out maintenance services to ensure the entire fleet is operating at its optimal and will be uninterrupted by maintenance requirements as services return. The cabin refurbishment project is our most extensive collaboration with Etihad Airways to date, as we have been working on the entire passenger fleet of 96 aircraft within a concise time frame.”

With travel restrictions in place preventing some customers overseeing the maintenance work in person, Etihad Engineering provided continuous footage of the maintenance progress captured by GoPro cameras and shared back with its clients. Virtual meetings also provided the latest updates.