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## Safe Ramp Up of Aerodrome Operations

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When the COVID-19 crisis started in 2019, lockdown measures and the closing of borders had caused air travel to decline drastically as aerodrome operations almost came to a standstill. Operations at Changi Airport were consolidated with the suspension of Terminal 2 and 4 to enable the aviation community to optimise resources in light of the situation.

As manpower and the scale of airside operations were reduced in tandem with lower flight volume, it was crucial to ensure that operations remained safe. This meant that aerodrome infrastructure, facilities and equipment had to be maintained regularly to ensure that they continued to be in proper working condition. Aerodrome operational staff also had to ensure that they kept up with standard operating procedures and requirements. Doing so was important as it would ensure that the aviation community would be able to handle the resurgence in air traffic volume as air travel recovers.

### Maintaining Aerodrome Safety Amidst Recovery

CAAS and Changi Airport Group (CAG), the aerodrome operator, have taken steps to create and maintain a safe operating environment at the aerodrome amidst this air travel recovery period.

As a first step, CAG performed a safety assessment of COVID-19's impact on aerodrome safety by leveraging on its Safety Management System. This allowed CAG to identify changes in the aerodrome operations that might affect the level of safety, assess the risks present, and implement measures to manage them accordingly.

Through this safety assessment, CAAS gained better situational awareness of CAG's operational challenges as a result of COVID-19 and determined that CAG had implemented the necessary changes and measures to maintain safe aerodrome operations.

As the airport was fully operational throughout the pandemic, CAAS continued with its regular safety oversight activities such as audits, onsite inspections, and analysis of safety data. This was necessary to decide whether more efforts in identified areas were required in preparation for the ramp up of operations. CAAS also took reference from international guidance materials in assessing CAG's plans to manage the ramp up of operations.



### Staying Vigilant with Regular Inspections

CAAS continued to carry out its own inspections alongside joint weekly inspections with CAG to look out for any unsafe practices at the airside. The areas that were of concern included airside personnels' adherence to standard operating procedures, proper housekeeping at the airside, and the presence of rush factors in operations.

In preparation of the reopening of Terminals 2 and 4 as air travel increased, CAAS also conducted extensive checks on CAG's inspection and maintenance records, as well as day and night onsite inspections to verify that airside infrastructure and facilities continued to comply with CAAS' requirements and were safe for aerodrome operations.

### Positive Surveillance Audit Outcome

CAAS carries out regular surveillance audits on CAG. During the height of the pandemic, the audits were scoped to focus on specific areas that were likely to be impacted during that period. The areas included aerodrome maintenance, aerodrome vehicle operations, safety of ground handling operations and aviation fuel quality. The audit outcome showed that CAG had managed the impact of COVID-19 to its aerodrome operations well, and had sufficiently supervised and managed its key service providers such as ground handling service providers (GHSPs), aviation fuel suppliers and maintenance contractors.



### Ensuring Continued Operational Vigilance in the Face of Higher Travel Demand

With the current recovery of air travel and increasing traffic, CAG and GHSPs had to ramp up quickly and thoroughly to handle more flights. These organisations adapted their staff training frameworks, putting in place new measures where needed, to ensure that both newly hired and furloughed staff were adequately trained before deployment.

Several types of ground services equipment (GSE) were also taken out of service during the pandemic due to low traffic. Likewise, maintenance programmes were implemented to properly restore these GSE for operations and to keep them in good working condition despite the increased workload.

To allow for closer monitoring of the GHSPs' readiness to support the ramp up, several precursor safety indicators were identified, including the maintenance and functionality checks of GSE, compliance with ground handling procedures, as well as competency and training of ground handling personnel.

As air travel demand increases, CAAS, CAG and the GHSPs will continue working closely to safely ramp up operations. Together, we look forward to the full recovery of the aviation industry.



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