



Safely Navigating the Industry Restart

Bulletin 4

Traffic management and airport operations during COVID-19

1. Background

Although air traffic movements started to pick up in May, passenger numbers remain low. International travel remains particularly impacted due to the imposition of quarantine requirements and other restrictions on travel. Government requirements and protocols for travel continue to be subject to change based on the data available with regards to the spread or containment of the virus. In this 'new normal' environment, airlines' capacity to predict travel demand is decreased. By extension, flight planning, turnaround times, and overall network management are dramatically impacted.

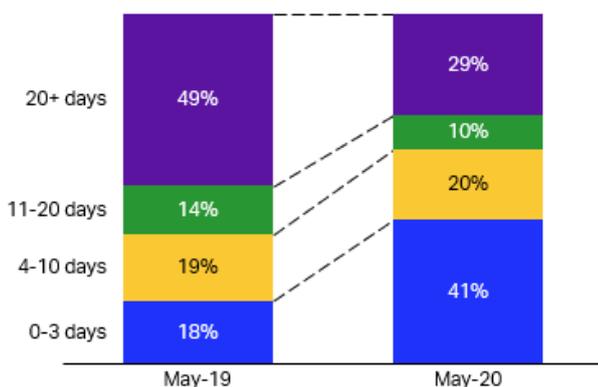


Figure 2: Number of days between booking and travel time, bookings worldwide made in May 2019 vs. 2020¹

Due to the large number of parked aircraft in airports around the world, airport and, specifically, runway capacity has been affected. In addition, some airports have taken advantage of lower traffic levels to initiate maintenance work and renovations. As demand rises, the availability of airport infrastructure may also have an impact on traffic management.

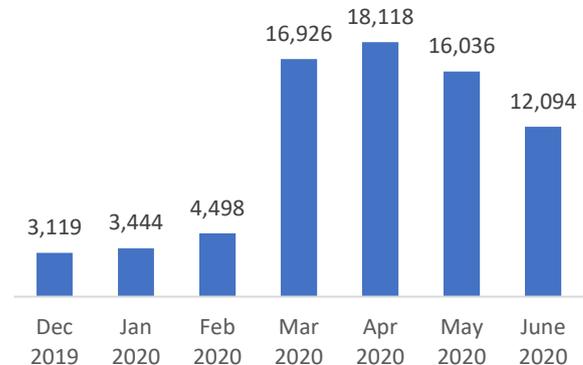


Figure 2: Number of Parked Aircraft²

New requirements to ensure the biosafety and health of passengers, crews, and staff could affect time spent on the ground time which will impact overall network performance. Looking at the network impact, flight connections for passengers may become impossible due to new constraints to ground capacity.

¹ Source: IATA Economics using data from DDS

² Source: IATA

Prolonged periods of low traffic at some airports may cause an increase in wildlife nesting. Unusual aircraft ground movement caused by the high number of parked aircraft may have an impact on nav aids and cause other safety hazards, e.g. wingtip clearance.

Air Traffic Management and operations at airports have been heavily affected by the crisis. In order to better understand the impacts that COVID-19 could have on airport and ATM operations, a safety risk assessment (SRA) was carried out by the Civil Air Navigation Services Organisation (CANSO), Airport Council International (ACI), and International Air Transport Association (IATA). The SRA helped shape a webinar which was organized on August 13th, 2020.

This joint bulletin is a result of the SRA and the webinar and highlights key considerations to be taken up by airports and ANSPs during the restart and recovery of operations.

2. Impact of COVID-19 on Airport and ATM Operations

2.1 Impact of COVID-19 on maintaining serviceability of navigation aids at locations with limitations related to inspection aircraft

The continued restrictions that COVID-19 is affecting on mobility of staff and accessibility to critical infrastructure could impact regular inspection and preventive maintenance of critical infrastructure. Current maintenance contracts may expire and not be extended due to varying limitations in different countries.

In locations where there is no local capability to conduct checks and flight inspections, there

could be challenges affecting third party technical assistance and equipment health check. Postponement of flight inspection checks may impact the serviceability of navigation aids. Additionally, the calibration of MET sensors and other instruments may have not been possible during lockdown periods. All these factors may result in erroneous navigational information to aircraft.

The pandemic is also impacting the availability of technical and support staff who are needed to ensure the availability and validity of critical infrastructure. Due to the new landscape created by the pandemic, there is also a risk of diminished ATSEP system knowledge and maintenance skills.

Mitigations

Agree with the regulator on reasonable limits to the extension of periodic flight checks of critical infrastructure and nav aids.

It is recommended that the local runway safety team (where available) conducts a local risk analysis.

Publication of timely NOTAM's regarding nav aids availability to ensure that airline operators and crew are aware of any changes or limitations.

2.2 Increased non-standard aircraft ground movements at airports with a large number of parked aircraft

Due to the increase in number of parked aircraft, airports are facing non-standard ground movements and limitations on manoeuvring areas. Combined with reduced runway throughput due to closed taxiways that are used for aircraft parking and increased aircraft turn-around time, this may lead to wingtip clearance incidents and, even more

seriously, an increased risk of runway incursions

Due to higher than usual numbers of parked aircraft, there is a potential risk of obstruction of clear line of sight from the tower. Non-standard aircraft ground movement may also have a potential impact on Communication, Navigation and Surveillance equipment, and potentially cause infringement of ILS critical or sensitive areas.

Some airports may want to consider establishing a committee for managing and planning aircraft parking with representatives from the airport operator, airlines, ANSPs. It is important for ATCOs and pilots to ensure frequent and necessary communication and that they use caution when conducting unusual operations during low visibility conditions.

Mitigations

Utilize additional best practices and guidance published by industry groups to support safe operations during COVID-19.

ANSPs, airports and airlines to promote and re-enforce special procedures that have been developed for operating in the new environment.

Special training and/or licensing may be required for ground technical staff.

2.3 Increased non-standard flight operations at airports with changing availability of infrastructure

Aircraft operation in and out of an airport may be affected by the combination of parked aircraft and changing availability of airport infrastructure. For example, taxiways may be closed due to parked aircraft or due to renovations that have commenced during the low traffic period.

Changes in the availability of airport infrastructure may cause confusion during operation and result in potential wrong surface operation or runway incursions. Visibility of airport signage and markings may be obstructed by parked aircraft. Obstacle limitation surfaces may be obstructed at some airports because of parked aircraft.

Mitigations

Timely publications of NOTAMs communicating changes in airport capacity.

Promote increased vigilance and awareness of new and emerging hazards due to COVID-19.

Increase frequency of meetings and engagement of local runway safety teams .

It is recommended that the airport operator conducts additional local risk assessment in the context of the new COVID-19 environment.

2.4 Potential increase in wildlife on or near some runways or taxiways due to low traffic levels

While traffic levels are low, the quiet surroundings are favourable for wildlife to nest and create new habitats. This poses a serious threat to aviation safety. In addition, the impact of the pandemic on resources and accessibility to infrastructure could have made it difficult to follow wildlife prevention programs during lockdown. Airports that have initiated maintenance or renovations while traffic is low may face the potential risk of increased wildlife nesting because of water sources available for construction work.

At the same time, the reduction in traffic levels provides an opportunity to search for locations that attract wildlife. The current situation enables airports to carry out effective

mitigation measures and reduce wildlife activity at and near airports.

The International Civil Aviation Organization (ICAO) is currently working on a new revision of Doc 9137, titled "Aerodrome Services Manual Part 3 Wildlife Control and Reduction". In addition, ACI is in the process of issuing a new revision of its Wildlife Hazard Management Handbook which contains guidance to assist airport operators in mitigating wildlife hazards.

Mitigations

The airport operator should update risk assessment of the changing wildlife environment

Airports resuming operations may want to conduct visual inspection of the manoeuvring areas for wildlife nesting. Aircraft operators should inspect parked aircraft for nesting activity.

The airport operator should continue or even increase its surveillance of the maneuvering area, since Habitat management is one of the key factors to reduce wildlife related incidents.

2.5 Low Predictability of Traffic and Changing Airport Capacity

During restart, airport capacity is changing, and, in some cases, additional ground constraints are added due to several factors, including;

- New biosecurity and measures for passengers, crew and operational staff;
- Turn-around times and buffers between flights which could impact gate utilization;
- Uncertainty about passenger processing impacts;

- Potential increase in minimum connecting time; and
- Different pace of recovery at airport and ANSP level.

At the same time, there is no sign of rapid return to travel even in summer months. Airlines are unable to plan their schedules for the coming months due to demand uncertainty. The high volatility of traffic forecasting implies that any adjustments to system capacity may be difficult to be made reasonably in advance.

While these factors may not cause a safety related hazard, they will drastically impact operations and connectivity. The pre-COVID structure of airport operations and scheduling of flights will be difficult to maintain with these impacts. Flexibility will be key to ensure new requirements can be accommodated rapidly and fairly.

As Airlines, Airports and ANSPs continue to work together on the transition during restart, some considerations can be made, such as;

- Reinforce and expand Collaborative Decision Making (CDM) across a wide range of stakeholders;
- Re-evaluate airport capacity and notify concerned parties; and
- Assess current and potentially future changes (reductions) to ATM/airspace capacity.

3. Recommendations

In order to utilize the best practices in this bulletin, it is recommended to use the identified hazards and the example safety risk assessment in **Attachment – A** to conduct an internal safety risk assessment by individual organizations or companies.

4. Additional Resources

Additional information and resources can be found on the following pages;

- [iata.org/en/programs/covid-19-resources-guidelines/](https://www.iata.org/en/programs/covid-19-resources-guidelines/)
- [canso.org/navigating-covid-19](https://www.canso.org/navigating-covid-19)
- [ACI- Airport Operations Business Restart and Recovery Guidance](#)
- blog.aci.aero/covid-19-airport-wildlife-hazard-management
- [aci.aero/about-aci/priorities/health/covid-19/](https://www.aci.aero/about-aci/priorities/health/covid-19/)

If you have any question or would like more information, please send an email to infrastructure@iata.org.

Attachment A - Bulletin 4

Safety Risk Assessment Example

Event	Hazards	Consequence	Existing Controls	Risk Rating	Additional Mitigation Actions (COVID-19 Impacts)
		(worst case scenario)			
Impact of COVID-19 on maintaining serviceability of navigation aids at locations with limitations related to inspection aircraft	Erroneous navigational information to aircraft resulting from mis calibrated ILS, PAPI, VASI and/or other navigational aids	Accident	<ul style="list-style-type: none"> • NOTAMs communicating availability of nav aids. • Existing system redundancies • Flight crew cross check • Pilot's discretion to initiate go-around 	Tolerable (with existing control)	<ul style="list-style-type: none"> • Agree reasonable limit to the extension of periodic flight checks of critical infrastructure and nav aids. • Local runway safety team is recommended to conduct a local risk analysis. • Timely NOTAM's regarding nav aids availability.
Increased non-standard aircraft ground movements at airports with a large number of parked aircraft	<ol style="list-style-type: none"> 1. Limitations on maneuvering areas, wingtip clearance 2. Reduction/obstruction of clear line of sight from the tower. 3. Runway incursion while towing 	Accident	<ul style="list-style-type: none"> • Aircraft ground movement control • Operating procedures. • SMS requirements for ground operations. • Existing driver operational/safety training for maneuvering area 	Tolerable (with existing control)	<ul style="list-style-type: none"> • Additional best practices and guidance published by industry groups to support safe operations during COVID-19. • Promotion and re-enforcement of special procedures that have been developed for operating in the new environment. • Special training and/or licensing may be required
Increased non-standard flight operation at airports with changing availability of infrastructure (due to a large number of parked aircraft)	<ol style="list-style-type: none"> 1. Wrong surface operation 2. Runway incursion 3. Potential infringement of critical/sensitive areas due to non-standard aircraft ground movement 4. Obstruction of obstacle limitation surfaces 	Accident	<ul style="list-style-type: none"> • Runway safety teams • Air Traffic procedures and aerodrome infrastructure standards • Critical area protection • Lighting, marking and signage • Surface surveillance 	Tolerable (with existing control)	<ul style="list-style-type: none"> • NOTAMs • Promote increased vigilance • Awareness of new hazards • Increased frequency of Runway Safety Teams • Airport operator is recommended to conduct additional local risk assessment in context of the new environment
Potential increase in wildlife presence on or near some runways or taxiways due to low traffic levels	<ol style="list-style-type: none"> 1. Wildlife strike and potential nesting in aircraft. 2. Construction on airport can create water sources and increase the number of insects, which attract birds. 3. Potentially reduced personnel, resources and accessibility limitations, hindering personnel from mitigation activities 	Accident	<ul style="list-style-type: none"> • ICAO requirement for Wildlife Hazard Management plans • Airport services manual • Pilot and Maintenance SOP's • NOTAMs 	Tolerable (with existing control)	<ul style="list-style-type: none"> • Habitat management • It is recommended that the airport conducts/updates local risk assessment of the changing environment