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Operational & Safety Challenges

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Operations, Safety, Security



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OPERATIONAL CHALLENGES

- Now: Ramping up the industry
- Future: Post COVID improvements

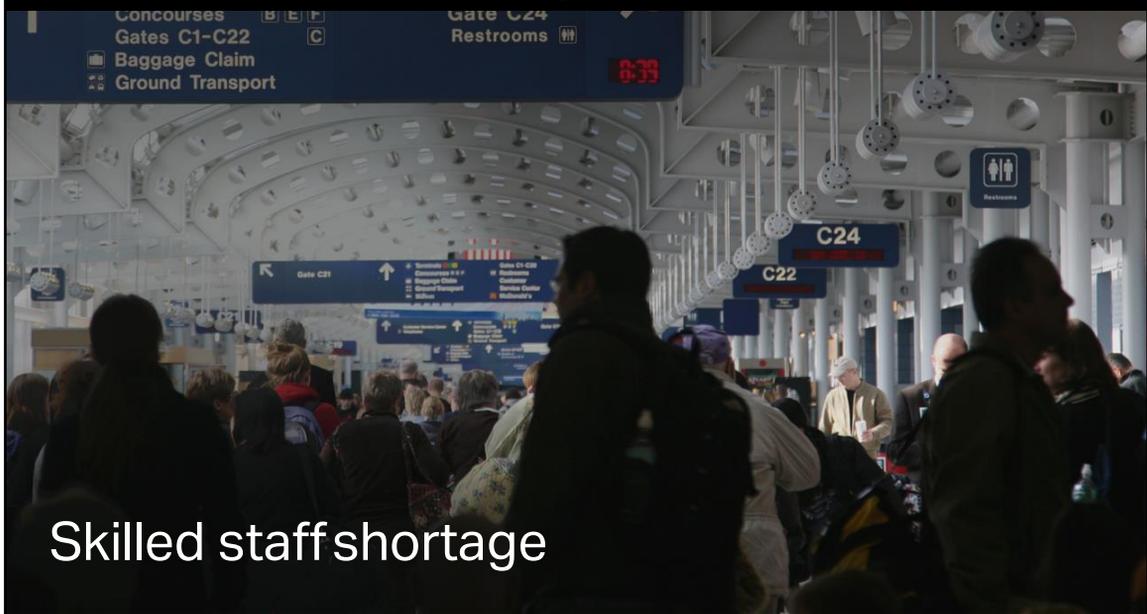
SAFETY CHALLENGES

- 5G
- Lithium batteries

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Now: Ramping up the industry

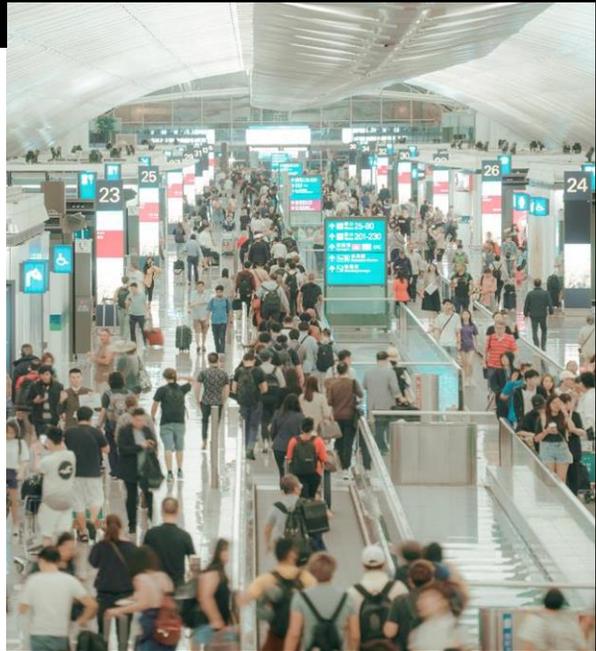


- Delays and disruptions are grabbing headlines in many parts of the world
- It is not every airport, or every day, or every flight
- Disruptions happen even at the best of times
- However, post COVID there was a unique set of circumstances that contributed towards a challenging resourcing environment
- The next few slides will unpack the unique set of events that is contributing to the delays at certain airports and regions

Unpacking the issue

Departure of staff
Furlough
Tight labor markets
Security clearances
Policy flip flopping

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- There was an exodus of staff during the pandemic, thousands of ground handling staff left the industry
- Many who were furloughed found new jobs and haven't come back
- The labor market remains tight and with more options people are selecting jobs with more flexibility that don't require long hours outdoors on the ramp in extreme weather conditions
- Delays in processing times for employment security clearances have also caused a challenge. These can take as much as 6 months in some markets
- There has been criticism of the industry for not doing more and planning better. This is misguided. Airlines, airports and ground handlers found themselves in a challenging situation due to constant changes in international travel regulations that impacted travel demand.
- Governments had no plan and this made it impossible for the industry to plan for an orderly restart. Governments made things up day-by-day. And they made policy U-turns—the worst being the complete over-reaction to Omicron.
- With so many policy flipflops and curve balls with little to no industry consultation, it's no wonder we are seeing operational challenges at some airports today.
- But aviation is no stranger to operational challenges. There are solutions

Now: Ramping up the industry

Solutions

Short-term:

Quicker clearance

Streamline onboarding processes

Long-term:

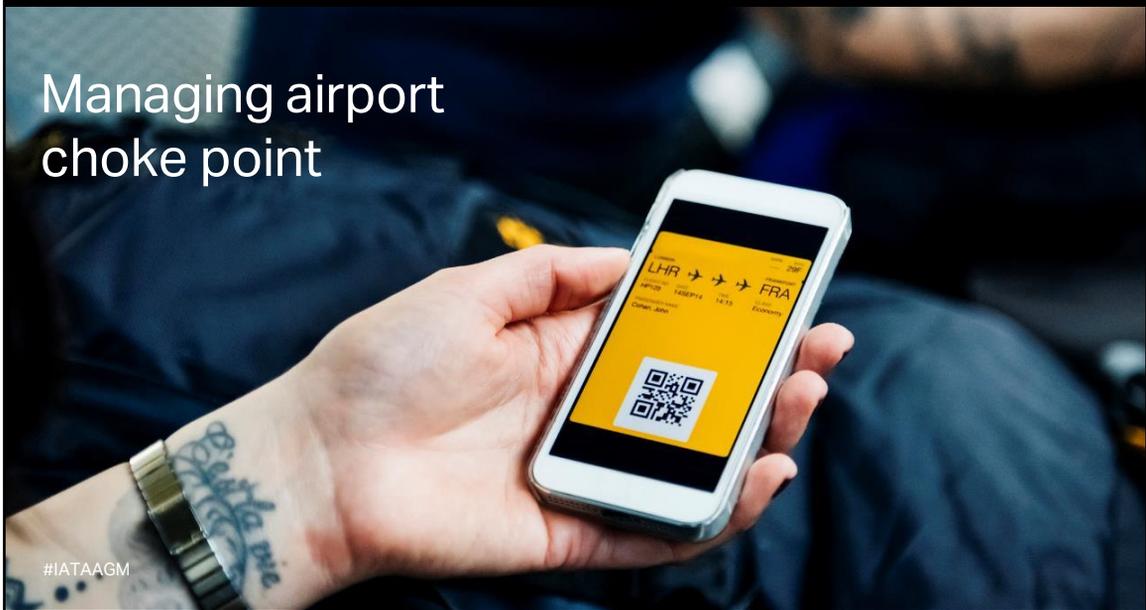
New approach to recruitment, onboarding, and retention

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- In the short term, government support to accelerate security clearances for new staff will help improve the situation. Longer term as an industry we need to do a better job of attracting and retaining talent. Attracting fresh talent is critical.
- We are working with the industry to:
- Launch an awareness campaign to highlight the attractiveness and importance of ground operations in global logistics and transport operations.
- Explore apprenticeships in partnership with trade schools to revitalize candidate pipelines.
- Implement career path mapping to demonstrate long-term prospects for people entering the sector.
- We also need to see more efficient onboarding processes. This will allow the sector to adapt quickly to demand changes, including those which are seasonal.
- In addition to accelerating security clearance for new staff. We need to see:
- A greater focus on competency-based training; moving to more online training and assessments will improve speed, flexibility and efficiency of onboarding.
- Mutual recognition by authorities of security training and employee background records will expedite onboarding and reduce redundant processes.
- Retention programs are also critical. But before we can develop these, we need to standardize processes across industry. A trained pilot can get into a plane anywhere in the world and fly the plane. A ground handler at one airport can't go to another & assume the processes are the same.
- Greater standardization will improve performance, provide employment flexibility and broader career options.
- Training passports that mutually recognize skills and training across ground handlers, airlines and/or airports are also key as well as
- Adoption of new technologies and automated processes to create diverse **job opportunities and career paths to attract a new generation talent**

Managing airport choke point



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- The second operational challenge is managing airport choke points
- These have been exacerbated with additional document checks for COVID-19 but they were there before
- Pre-COVID-19, the average passengers spent 1.5 hours in travel processes (check-in, security, border control, customs, and baggage claim). At its worse airport processing times ballooned to 3 hours during peak time.
- The greatest increases are at check-in and border control (emigration and immigration) where travel health credentials are being checked mainly as paper documents.
- We need to digitize these processes.

Passengers want...

1

Reduced queuing time **38%**

2

Avail the use of automated gates **26%**

3

Eliminate paper forms **16%**

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L1. ARRIVAL If you were to choose one element of the border control/immigration process at arrival that needs improvement, what would it be?

Queuing time:	38.2%
Information in advance about immigration procedures:	10.4
The elimination of paper forms:	16.2
The ability to use an automated gate:	25.5%
The availability of accurate signage/information:	5.8%
Other, please specify:	1.0%
No improvements are needed:	2.9%

Note: Passengers were allowed to choose only one option here.

Solutions

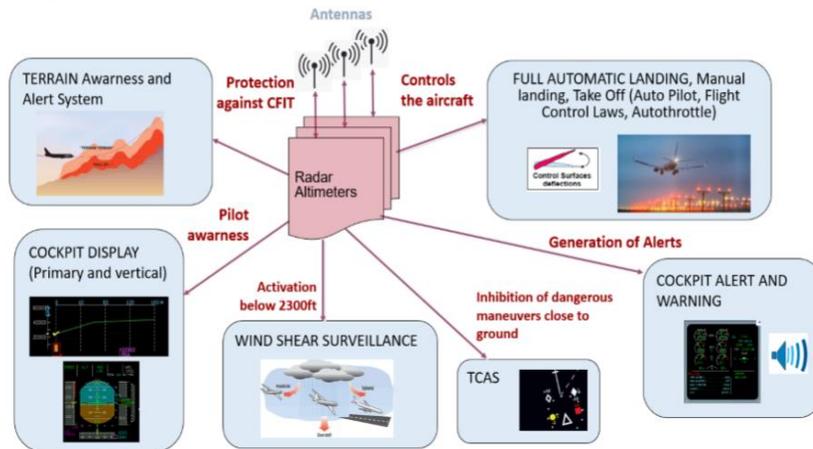
- **Known traveler programs**
- **Increased automation**
- **Introduce advance screening technologies**
- **One ID**

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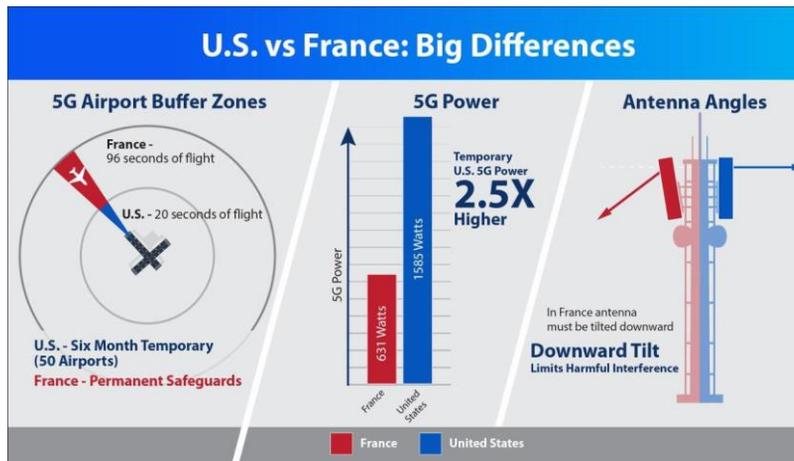
- Known traveler programs, increased automation, the introduction of advance screening technology and the use of biometrics are effective tools in the effort to make the airport process smoother and more efficient.
- Known Traveler programs: Most governments are using passenger data for immigration purposes—to secure their borders. But we should not stop there. We need to broaden the use of known traveler programs to include security, such as the US Transportation Security Administration's (TSA) Pre-check program. The TSA has shown the world that there is a better way to enhance security and make the passenger journey less stressful.
- Increased automation: self check in, bag drop, immigration, self-boarding with more self-service options, more choices for passengers. Introduction of advance screening technology: Many of the world's top gateway airports that have invested in CT screening technology, are seldom applying risk-based security.
- With risk adjusted settings, passengers need not to remove belts and shoes for example. Additionally, some 15 years after the LAGs restrictions were introduced, screening for LAGs, which is not an ICAO standard, but exists in guidance only, remains nonsensical. States continue to specifically mandate LAGs screening and often without leveraging appropriate technology.
- One ID: is an initiative that is helping transition industry towards a day when passengers can move from curb to gate using a single biometric travel token such as a face, fingerprint or iris scan. Airlines are strongly behind the initiative. The priority now is ensuring there is regulation in place to support the vision of a paperless travel experience. One ID will not only make processes more efficient for passengers, but also allow governments to utilize valuable resources more effectively.

5G Potential Interference to Aircraft Radio Altimeters If Not Mitigated



- 5G will play a key role in supporting governments and policy-makers in transforming their cities into smart cities, allowing citizens and communities to realize and participate in the socio-economic benefits delivered by an advanced, data-intensive, digital economy.
- But introduction of 5G services needs to be done in consultation and coordination with industry and air safety regulators to ensure mitigations are in place to avoid the risk of potential interference with radio altimeters, which are crucial aircraft avionics that measure the distance between an aircraft and the ground. The radio altimeter also provides input to other critical safety, flight control and alerting aircraft systems.
- The Interference impact is roughly a function of:
 - 1. Power of the 5G transmitters
 - 2. Proximity of the 5G transmitters to aircraft
 - 3. Spectrum separation to radio altimeters spectrum (how close in GHz)
- Spectrum issues and regulations are typically under the authority of State spectrum regulator.
- We fully support 5G – but it needs to be deployed in a manner that allows 5G and aviation to coexist safely. This already has happened in a number of markets around the world.

Different approaches



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- Markets where 5G telecommunications services have been successfully with little to no impact on airline operations include Canada, France, Thailand, the United Kingdom, Japan, South Korea and Australia.
- Unfortunately, this was not the case in the U.S., where the 5G C-band licenses were granted to telecom providers at higher power levels, and adjacent to the spectrum used for aviation radar altimeters, AND without the necessary safety mitigations near airports.
- The industry raised its concerns very early on. Unfortunately, these concerns were dismissed out of hand by the FCC and the National Telecommunications and Information Administration.
- As a result, the rollout of C-band 5G operations in January 2022 at certain US airports created enormous disruption to airlines.
- Although safety was not compromised, significant costs were imposed on airlines as they worked to comply with the special conditions established by the US Federal Aviation Administration (FAA) for safe operations in the presence of C-band 5G transmissions.
- Furthermore, the FAA will mandate airlines to replace or upgrade the FAA-approved radio altimeters currently in their fleets by July 2023, at their own expense, in order to protect against potential interference from the rollout of 5G near US airports.
- This decision is being imposed by FAA, despite the fact that there is no industry consensus that this timetable is achievable, particularly given that the FAA has not yet approved solutions and the systems providers cannot guarantee availability of the new equipment within this time frame.
- All parties are committed to safety, but ad hoc unilateral and unrealistic pronouncements will not achieve this goal. All stakeholders need to work together to define solutions and deadlines that reflect reality and preserve safety.

Possible 5G Solutions

Engage aviation industry in advance

Mitigation measures:

- Exclusion zones around airports
- Lower power levels
- Directional changes to antennas

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- Protection of the civil aviation spectrum and aircraft safety systems is an IATA top priority.
- Before deciding on any spectrum allocations or conducting spectrum auctions, governments must ensure that every frequency allocation/assignment is comprehensively studied and is proven not to adversely impact aviation safety and efficiency
- IATA continues engaging with governments to mitigate threats to the civil aviation spectrum, including encouraging responsible deployments of 5G.
- Airlines should not be expected to bear the cost of replacing/upgrading regulator-approved avionics owing to the deployment of 5G services, as is happening in the US.
- Moreover, aircraft and avionics manufacturers should carefully review their design and engineering methodology to ensure that a single point of failure due to electromagnetic interference will not negatively impact safety of flight operation and performance of aircraft.

Lithium Batteries

Demand for lithium batteries is growing 30% annually.

With it, the risk of incidents involving mis-declared or undeclared lithium batteries is also rising.

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- Demand for lithium batteries is growing by 30% annually
- With it, the risk of incidents involving mis-declared or undeclared lithium batteries is also rising
- At its worst, the consequence of an incident involving fire caused by a lithium battery inside an aircraft could be catastrophic, leading to the loss of the aircraft and life of those onboard and/or on the ground
- But incidents shouldn't be increasing
- Safety is aviation's top priority. Airlines, shippers and manufacturers have worked hard to establish rules that ensure lithium batteries can be carried safely.

Government priorities

1. Enforcement & penalties for rogue lithium battery shippers
2. Development of safety related screening standard
3. Development of a fire-testing standard
4. Data collection and sharing between governments

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- But the rules are only effective if they are enforced and backed-up by significant penalties.
- Government authorities must step up and take responsibility for stopping rogue producers and exporters.
- Abuses of dangerous goods shipping regulations, which place aircraft and passenger safety at risk, must be criminalized.
- IATA is renewing its call to governments for stricter enforcement and stiffer penalties for rogue lithium battery shippers as well as:
- Development of specific standards and processes by governments to support the safe transport of lithium batteries, like those that exist for air cargo security, will help provide an efficient process for compliant shippers of lithium batteries. It is critical that these standards and processes be outcome based and globally harmonized.
- The development and implementation of a fire-testing standard that addresses lithium battery fire containment. At present there is no fire-testing standard that addresses lithium battery fire containment providing additional protection over aircraft fire protection systems.
- Step up in safety data collection and sharing between governments Safety data is critical to understanding and managing lithium battery risks effectively. Without sufficient relevant data there is little ability to understand the effectiveness of any measures. Better information sharing and coordination on lithium battery incidents among governments and with the industry is essential to help managing lithium battery risks effectively the risk.