IATA WEBINAR

Technical Operations: Preparing for Return to Service - Episode 2

Thursday 16 July 2020
8-9am [EDT] / 2-3pm [CET]
This session is recorded.

Your mic is automatically muted.

Polls: Click on Submit once you have selected your answer

Questions: click on Questions on the right side of your screen to submit your questions
Introduction

Stuart Fox
Director Flight Operations - IATA

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Worldwide impact: 65% of fleet grounded

Source: Cirium

Global Average Daily Utilization (hrs/day)

Dec 2019: 3,119
Jan 2020: 3,444
Feb 2020: 4,498
Mar 2020: 16,926
Apr 2020: 18,118
May 2020: 16,036
June 2020: 12,094

Source: Cirium
Agenda

❑ Competition Law Guidelines:
  • IATA’s Legal Anti-Trust Counsel will be screening the questions

❑ Our Speakers

❑ Preparing for Return to Service
  • Regulatory issue
  • Continuing airworthiness
  • Maintenance-related issues for parked and stored aircraft and how to bring them back to service
  • Transporting cargo in passenger cabin

❑ Q&A Session
Airline Industry Restart

3 phases of recovery

Immediate
- Q3/2020
- minimum measures in place to enable governments to approve flights

Intermediate
- Q4/2020 – Q4/2021
- temporary arrangements with consistent application and mutual acceptance between States

Post COVID19
- 2022 –
- removal of temporary arrangements

minimum measures in place to enable governments to approve flights
Airline Industry Restart

System Restart

- **System Capability**
  - Get planes back up in the sky ...

- **Travel Experience (biosafety)**
  - ... taking all necessary precautions to avoid the spread of COVID-19 ...

Demand Restart

- **Restore Confidence**
  - ... so that States relax travel restrictions, and the public is confident to fly ...

- **Stimulate Demand**
  - ... while keeping air travel affordable, and getting people on planes
Tech Ops & MRO

Maintenance burden for parked aircraft
- Guidance for managing the airworthiness of an aircraft during and post COVID-19 pandemic

Return To Service (RTS)
- Aircraft cleaning & disinfection
- Preparing for RTS (Webinar): Episode #1 recording
- Guidance and best practices for Life Limited Parts
  - LLP Traceability Implementation (Webinar): Registration
- MRO SmartHub: a unique tool to evaluate and trade Used Serviceable Material (USM)

Transporting Cargo in Passenger Cabin
- Guidance for the transport of cargo and mail on aircraft configured for the carriage of passengers
Our Panelists

Chris MARKOU
Head, Operational Cost Management - IATA
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Eugenia DÍAZ ALCÁZAR
Airworthiness Standards & Implementation Section Manager - EASA
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Aman SANDHU
777 Senior Deputy Fleet Chief - Boeing
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Pat MARKHAM
VP, Technical Services - HEICO
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Yves MORIN
Director, Engineering & Head of Airworthiness Engineering Org. - Air Canada
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Keith FERNANDES
Manager, Fleet Engineering - Virgin Australia
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Poll #1

When will demand for travel be back to 2019 levels?

- 6-12 months: 14% (Webinar #1), 9% (Webinar #2)
- 12-24 months: 46% (Webinar #1), 26% (Webinar #2)
- 2-3 years: 49% (Webinar #1), 36% (Webinar #2)
- 3 years+: 16% (Webinar #1), 4% (Webinar #2)
EASA
European Union Aviation Safety Agency

Return to Normal Operations – Project RNO

Eugenia Diaz Alcazar
Airworthiness Standards and Implementation Section Manager

Identifying and solving European Industry problems for RNO – focus on commercial operations (WS1)
Identifying and solving European Industry problems for RNO – focus on design and production (WS2)
Recovery Support to EU/EASA National Competent Authorities (WS3)
Facilitating the removal of air travel restrictions by implementing aviation tailored measures focused on preventing the spread of the virus (WS4)

General Aviation recovery (WS5)

EUROCONTROL Network
Flights per day 2020: Percentage of 2019, Traffic averaged over 7 days
**NO Compromise on safety - COVID-19 Risk Portfolio, Main categories of risks identified**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Systems</td>
<td>Importance of full reliance on management systems for the integration of CV19 mitigations into organisations’ work</td>
</tr>
<tr>
<td>Human Performance</td>
<td>Impact of the shutdown and return to service on human performance, such as fatigue or well-being</td>
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<tr>
<td>Outdated Information</td>
<td>Due to shutdown, several types of information may be out of date and difficult to update in time for a return to service, or to maintain updated with reduced staff</td>
</tr>
<tr>
<td>Training, Checking and Recency</td>
<td>Safety issues related to the erosion of competence of aviation personnel</td>
</tr>
<tr>
<td>Infrastructure and Equipment</td>
<td>Safety issues relating to maintaining or returning infrastructure and equipment to service, such as fuel contamination, ground service equipment serviceability, damage to aerodrome surfaces caused by parked aircraft</td>
</tr>
<tr>
<td>Financial Impact</td>
<td>Financial impact of the shutdown and gradual return to service may affect safety due to fewer resources and disconnected supply chains</td>
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</tbody>
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Guidelines

• Lead by CAMO, several actors involved.

• Examples of questions to consider to identification hazards:
  • Enough protective covers available for the fleet or alternate procedures used?
  • Robbery of parts from the aircraft?
  • Health safety recommendations for people affect the way they work?
  • May staff be distracted and therefore not focused on its tasks because of COVID-19?
  • When was the last time the CAMO/AMO used the procedure for return to service of aircraft on long term storage?
  • Is this procedure still adequate for the current scenario and the volume?

• AMO: Inform particular defects, unexpected findings

- Aircraft not (or not fully) stored in accordance with storage procedures
- Aircraft parked at airfields where only minimum maintenance services are available
- Robbery of spare parts on one aircraft for use on other aircraft
- Aircraft stored during wet period or humid environment
- Suppliers not delivering on time or with the expected quality
- AMO tools and equipment not serviceable
- Need to complement workforce with external personnel, that are not used to our working methods
- Inappropriate decision making in unknown situation (organisations may face situations not addressed in existing procedures)
- Staff with limited experience on storage procedures
- Covid-19 health recommendation poses restrictions on group activities
- Aircraft returning to operation with overdue maintenance

EASA
BOEING’S RESPONSE

- Operating rhythm re-purposed
- Single source and consistent communication of Information
- Hosted multiple all models & model specific meetings/calls
- Industry initiatives ICAO, ICCAIA, IATA, A4A, Regulatory agencies
- Launched Confident Travel Initiative (CTI)
- Regular updates and revisions per industry needs

COVID 19 - Impact
FOCUS AREAS

Aircraft Maintenance

- Storage - Normal/Active/Prolonged (AMM tasks) – extensions & guidance
- Scheduled Maintenance Task assessments (calendar driven line maintenance)
- N.B. - SMT task credit for AMM task performed during preservation

Aircraft Cleaning and Disinfection

- Chemical disinfectants
- Antimicrobial surfaces
- Ultraviolet technology
- Environmental control system (ECS) studies
- General issues and application methods

Pax Airplane Carriage of Cargo – Humanitarian aid

- Lower cargo compartments
- Passenger compartment – Recommendations/Guidelines, NTO
  - Approved Stowage locations
  - Additional opportunities
- Boeing Technical consulting agreement (Boeing Global Services)
World Wide Fleet Disruptions & Changes

- Demand disruptions ripple through supply chain
- Fleet RTS… Which Fleets, and When?
- Staying Agile & Keeping Connected

HEICO Parts and Repairs continue “new normal” operations
Looking and Leaning Forward

We have all been through fleet disruptions before!

- Inventory (Re-)Planning
- New Development (PMA/DER)
- Supporting Airlines with their Alternate Parts plans

Ensuring that a 2nd Source option is available on RTS.

“When everything seems to be going against you, remember that the airplane takes off against the wind, not with it.”  –Henry Ford–
Parking & Storage Experience

Yves Morin
Director Engineering & Head of AEO

July 16, 2020
Initial Response & Program Customization

- Parking & Storage Working Group established
  - Covers, Covers, Covers!
  - Storage Guidelines
  - Corrosion Severity Zones
- On-Going Oversight Inspections
- Findings & Rectifications
Return to Service

- Fleet Categories
  - Operational
  - Short Term Parking
  - Long Term Storage
  - Retiring Fleets

- RTS Procedures Optimized
AIRCRAFT PARKING

MANAGING CONTINUING AIRWORTHINESS
RETURN TO SERVICE OPTIMISATION

KEITH FERNANDES
MANAGER FLEET ENGINEERING

JULY 16, 2020
MANAGING CONTINUING AIRWORTHINESS

<table>
<thead>
<tr>
<th>PRESERVE CERTIFICATE OF AIRWORTHINESS</th>
<th>RISK ASSESSMENT &amp; CONTROLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROTECT VALUABLE ASSETS</td>
<td>PARKING/STORAGE PER ICA &amp; APPROVED DEVIATIONS</td>
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PROGRAM ADJUSTMENTS

<table>
<thead>
<tr>
<th>LOCAL CONDITIONS / ENVIRONMENT</th>
<th>ADDITIONAL MAINTENANCE</th>
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<tbody>
<tr>
<td>EXPOSED BARE METAL PROTECTION (CIC)</td>
<td>ICA CHANGES / OEM PROGRAM EXTENSIONS</td>
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REPEITIVE INSPECTIONS

<table>
<thead>
<tr>
<th>DEFECT MANAGEMENT</th>
<th>ENGINE &amp; APU RUNS</th>
<th>FUEL TREATMENTS</th>
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</thead>
<tbody>
<tr>
<td>CORROSION / BIRD &amp; INSECT NESTS</td>
<td>CABIN VENTILATE / REL HUMIDITY</td>
<td>BIOCIDE RATIOS/PROCESS/TESTING</td>
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IATA TECHNICAL OPS WEBINAR
1 SCHEDULED MAINTENANCE
- Acquit accumulated scheduled maintenance
- Deviations to extend maintenance – OEM technical justification & Regulatory approvals
- Mandatory ICAs

2 OUT OF PARKING MAINTENANCE
- Out of parking/storage maintenance instructions per ICA (AMM/SL)
- Open Defects, robbed parts
- Loadable Software updates – NDB, Terrain DB ...

3 OPERATOR DRIVEN
- Extensive flight deck checks – electrical/avionics/alternate/standby systems
- Part Power engine runs
- Engine Cowl Thermal Anti-Icing / Bleed Systems
- Cabin – Deep cleans, disinfectants, carpets, furnishings, galley equipment, lavatories
Poll #2

What is your main maintenance-related issue preparing for return to service?

- Coping with regulatory/OEM maintenance requirements: 43% (Webinar #1), 54% (Webinar #2)
- Availability of tools/facilities for heavy maintenance: 12% (Webinar #1), 8% (Webinar #2)
- Availability of technical staff: 23% (Webinar #1), 30% (Webinar #2)
- Aircraft cleaning requirements to meet turnaround times at the gate: 22% (Webinar #1), 8% (Webinar #2)
Q & A

Chris MARKOU
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Useful links (1/2)

www.iata.org


airlines.iata.org/topic/covid-19
Useful links (2/2)

EASA
- COVID-19 Resources:

ICAO
- Council Aviation Recovery Taskforce (CART) Report & Take-off Guidance:
  www.icao.int/covid/cart/Pages/default.aspx
- COVID-19 Safety Operational Measures:
  www.icao.int/safety/COVID-19OPS/Pages/default.aspx
## COVID-19: EASA Response and Support to MS and Industry


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<th>Date</th>
<th>Description</th>
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<tr>
<td>06 May 2020</td>
<td>EASA publishes Safety Information Bulletin – Preparation for Aerodromes to resume operations</td>
</tr>
<tr>
<td>20 May 2020</td>
<td>EASA offers financial relief to aviation industry companies hit by COVID-19</td>
</tr>
<tr>
<td>15 June 2020</td>
<td>EASA/ECDC issue joint guidelines to assure health safety in air travel despite COVID-19 pandemic</td>
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<tr>
<td>22 June 2020</td>
<td>Flight Time Limitation - temporary exemptions under Article 71(1) of Regulation (EU) 2018/1139 (the Basic Regulation)</td>
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<tr>
<td>29 June 2020</td>
<td>EASA launches programme to monitor the implementation of its COVID-19 operational protocol</td>
</tr>
<tr>
<td>23 July 2020</td>
<td>EASA releases posters summarising EASA/ECDC's COVID-19 guidance for passengers</td>
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### EASA COVID-19 Resources

- **COVID-19**
  - Guidance / Advice
  - Safety Information Bulletin
  - Safety Directive
  - Notification

### EASA COVID-19 Updates

- [COVID-19](https://www.easa.europa.eu/easa-covid-19-resources): Oversight of organisations during COVID-19 crisis (only offering organisations where EASA is the competent authority)
This paper raises awareness of possible hazards and possible mitigations related to the risks of aircraft returning to service. The detailed risk assessment needs to be conducted by the relevant organisation, taking into account their particular situation and activities.
IATA WEBINAR

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Thank you for attending!