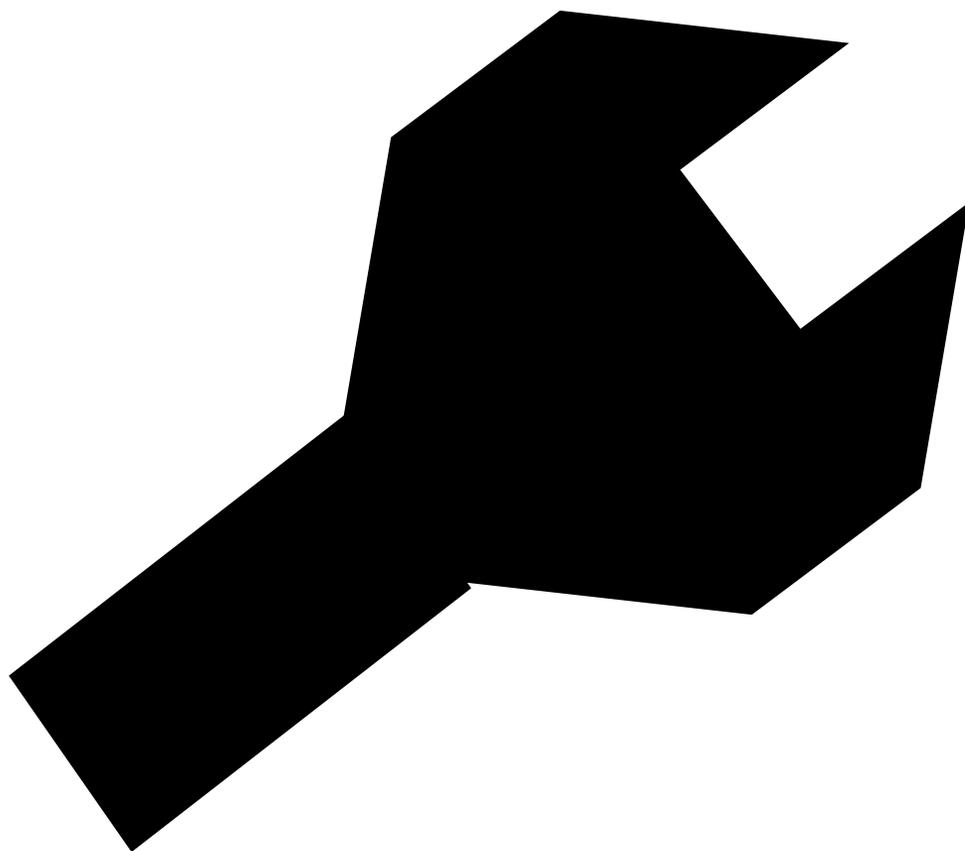
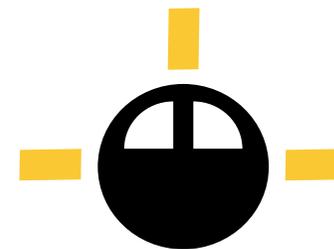


IATA WEBINAR

**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

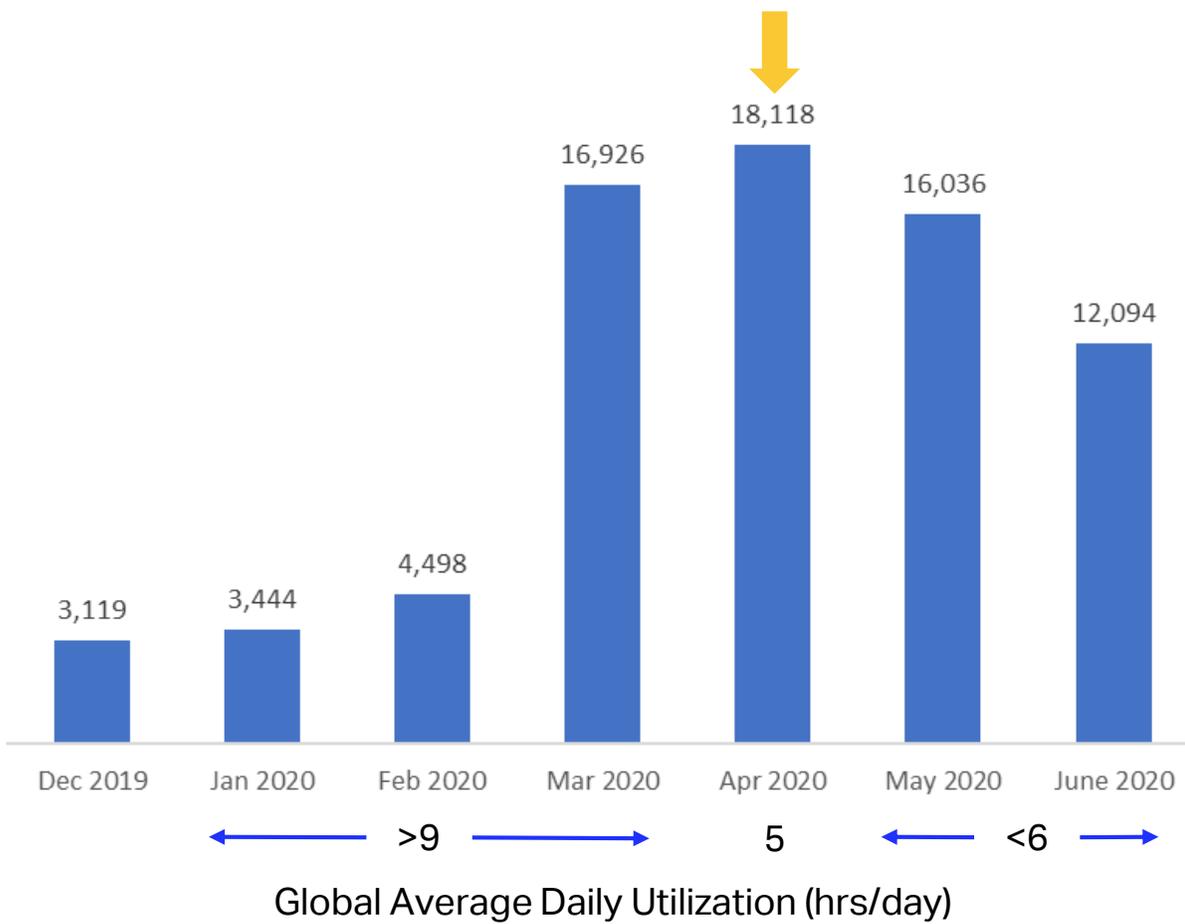


Stuart Fox

Director Flight Operations - IATA

foxs@iata.org

Worldwide impact: 65% of fleet grounded



Source: Cirium



Agenda

Competition Law Guidelines:

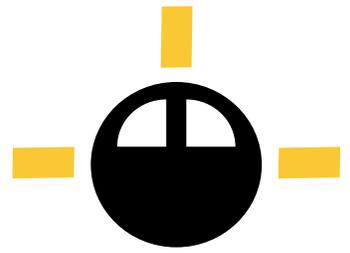
- IATA's Legal Anti-Trust Counsel will be screening the questions

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



Daniel Kanter

Assistant General
Counsel, IATA

kanterd@iata.org

Airline Industry Restart

3 phases of recovery

Immediate

Intermediate

Post COVID19

Q3/2020

Q4/2020 – Q4/2021

2022 –

minimum measures in place
to enable governments
to approve flights

temporary arrangements with
consistent application and
mutual acceptance between States

removal of
temporary
arrangements

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)

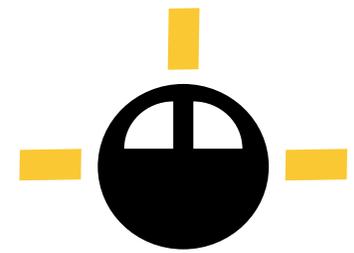
- [Aircraft cleaning & disinfection](#)
- Preparing for RTS (Webinar): [Episode #1 recording](#)
- [Guidance and best practices for Life Limited Parts](#)
 - LLP Traceability Implementation (Webinar): [Registration](#)
- [MRO SmartHub](#): a unique tool to evaluate and trade Used Serviceable Material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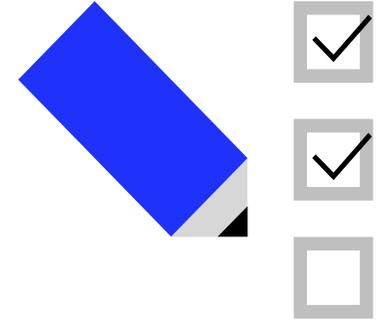


Keith FERNANDES

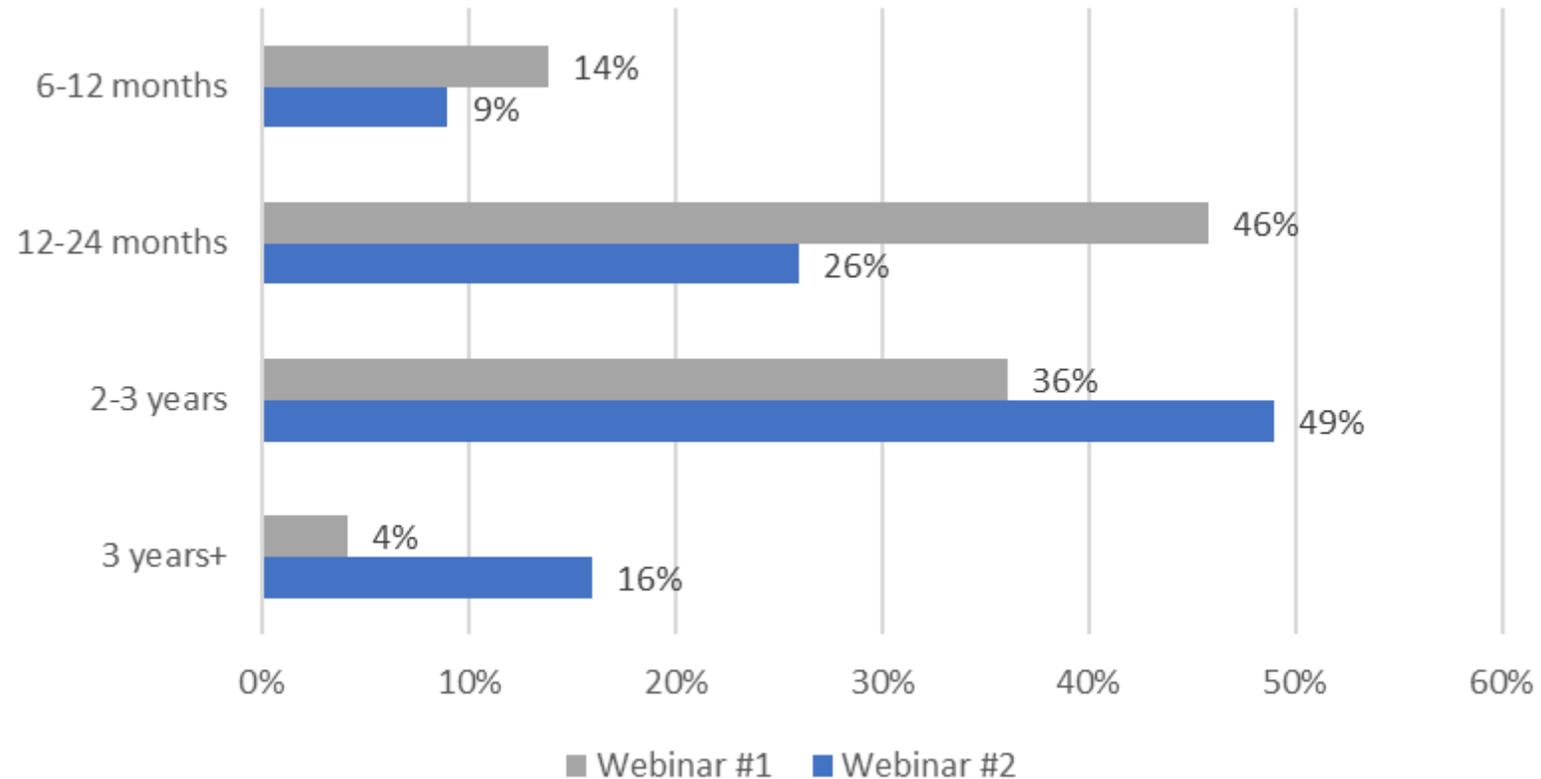
Manager, Fleet Engineering - Virgin Australia

keith.fernandes@virginaustralia.com

Poll #1



When will demand for travel be back to 2019 levels?



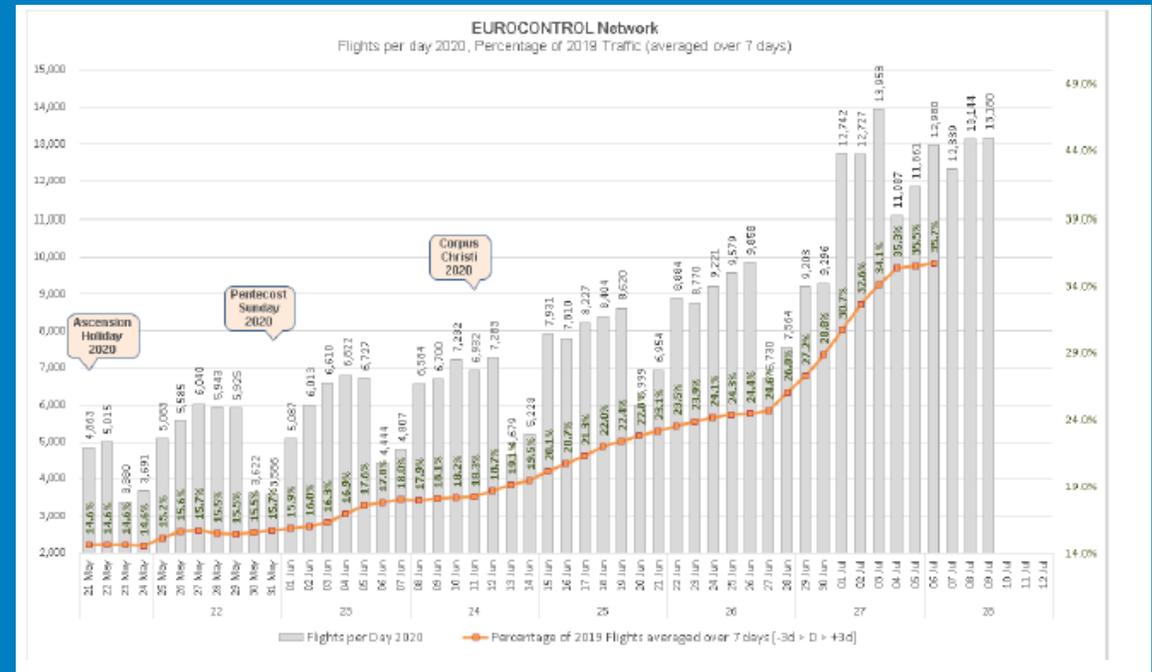
Return to Normal Operations – Project RNO

- 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)



Eugenia Diaz Alcazar
Airworthiness Standards and Implementation
Section Manager



NO Compromise on safety - COVID-19 Risk Portfolio, Main categories of risks identified

Management Systems

Importance of full reliance on management systems for the integration of CV19 mitigations into organisations' work

Human Performance

Impact of the shutdown and return to service on human performance, such as fatigue or well-being

Outdated Information

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

Training, Checking and Recency

Safety issues related to the erosion of competence of aviation personnel

Infrastructure and Equipment

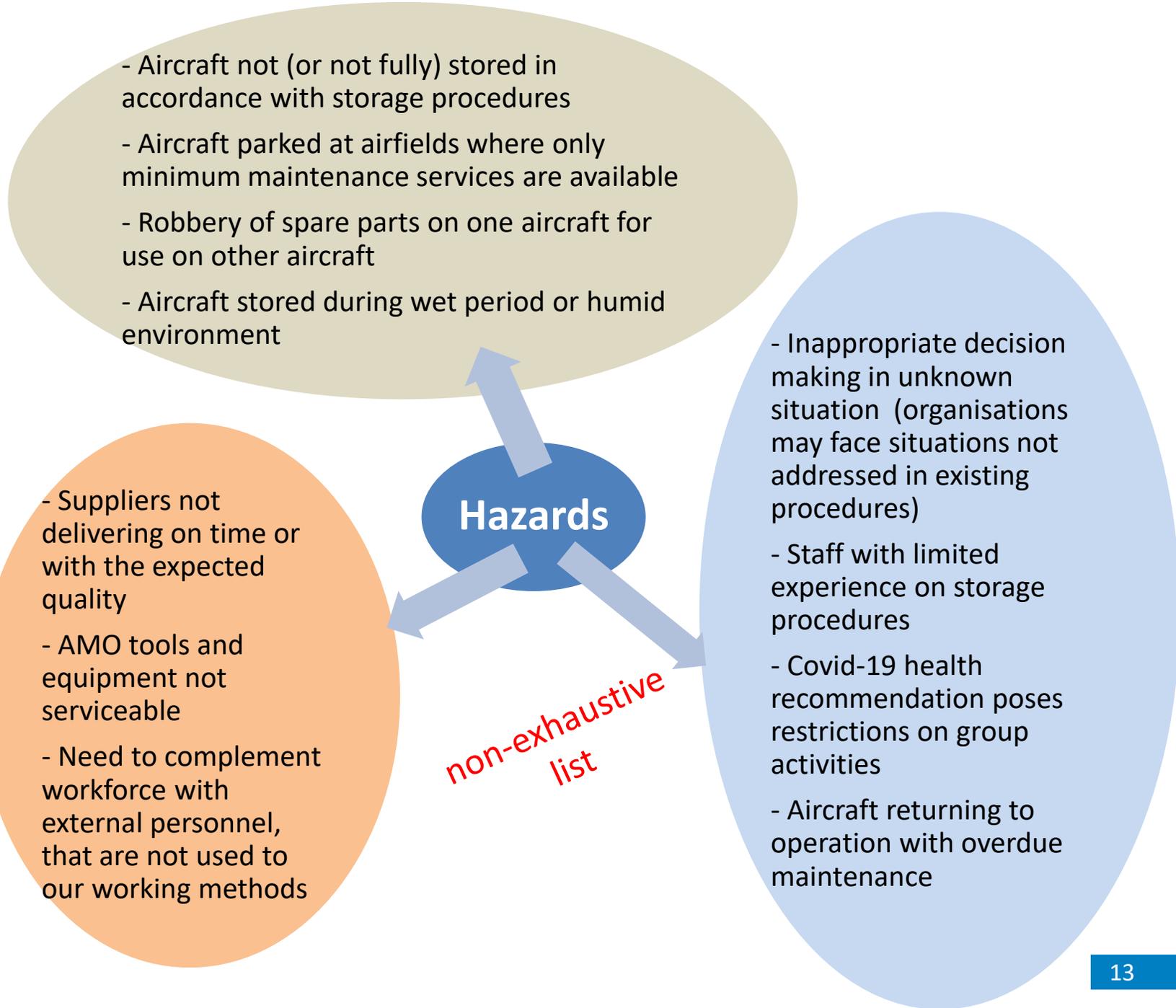
Safety issues relating to maintaining or returning infrastructure and equipment to service, such as fuel contamination, ground service equipment serviceability, damage to aerodrome surfaces caused by parked aircraft

Financial Impact

Financial impact of the shutdown and gradual return to service may affect safety due to fewer resources and disconnected supply chains

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 therefor 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





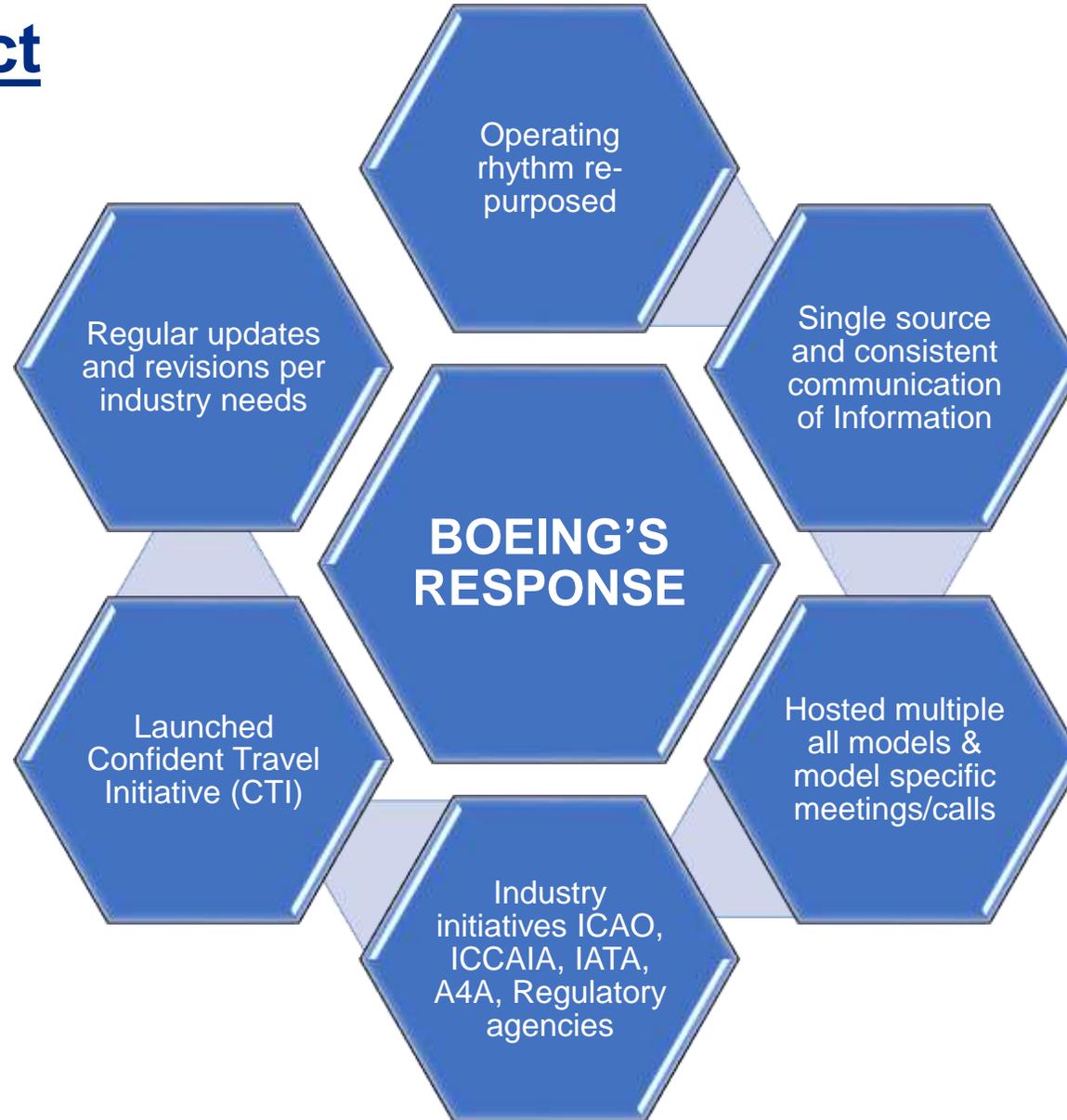
Aman SANDHU

Sr Deputy Fleet Chief, 777
Boeing Customer Support

16th July 2020



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)

HEICO

Pat MARKHAM - VP, Technical Services



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



HEICO Parts and Repairs
continue “new normal” operations

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

| AIR CANADA AIR CANADA INSTRUCTIONS | | | | | | | |
|---------------------------------------|-------------------------|---------------|-----------------|-----------------|---------------|------------------|------------|
| Fleet Storage Guidance | | | | | | | |
| Doc. No. | A32x,B767,B777,B787,ERJ | | | | | | Revision A |
| Doc. No. | A32x <14>=15> | A330 <14>=32> | B767 <13>=18> | B777 <13>=18> | B787 <11>=18> | ERJ <13> | |
| Validity | 8 Months | 8 Months | 7 days <13> | 7 days <13> | | 7 days | |
| Introduction <12> | 3-101000-03AC | 8-102000-02AC | 6-10-10-00AC-03 | 7-10-11-01AC-01 | | 08-10-10-03-03AC | |
| 7 day | 3-101100-03AC | 8-102000-03AC | | | | 19-10-10-01-03AC | |
| 14/15 day <13> | 3-101100-03AC | 8-102000-03AC | | | | | |
| 28/30 day <13> | 3-101100-03AC | 8-102000-03AC | | | | | |
| 90 days | | | | | | | |
| RTS <12> | 3-103000-03AC | 8-103000-11AC | 6-10-10-00AC-02 | 7-10-11-01AC-02 | | 09-10-10-01-03AC | |
| Validity | 90 days | 90 days | 90 days <8> | 90 days <8> | 120 days <13> | 60 days <8> | |
| Introduction <12> | 3-101000-03AC | 8-102000-03AC | 6-10-10-00AC-05 | 7-10-11-00AC-01 | 8-10-06-00AC | 09-10-10-03-03AC | |
| 7 day | 3-101100-03AC | 8-102000-03AC | 6-10-10-00AC-03 | 7-10-10-00AC | | 08-10-10-00AC | |
| 12/14/15 day <13> | 3-101100-03AC | 8-102000-03AC | | | | 08-10-10-01AC | |
| 28/30 day <13> | 3-101100-03AC | 8-102000-03AC | 6-10-10-00AC-03 | 7-10-10-03AC | | 08-10-10-03AC | |
| 90 days | 3-101100-03AC | 8-102000-03AC | | | | 08-10-10-03AC | |
| RTS <12> | 3-103000-03AC | 8-103000-12AC | 6-10-10-00AC-03 | 7-10-10-00AC | 8-10-10-00AC | 09-10-10-03AC | |



Return to Service

- Fleet Categories
 - ✓ Operational
 - ✓ Short Term Parking
 - ✓ Long Term Storage
 - ✓ Retiring Fleets
- RTS Procedures Optimized



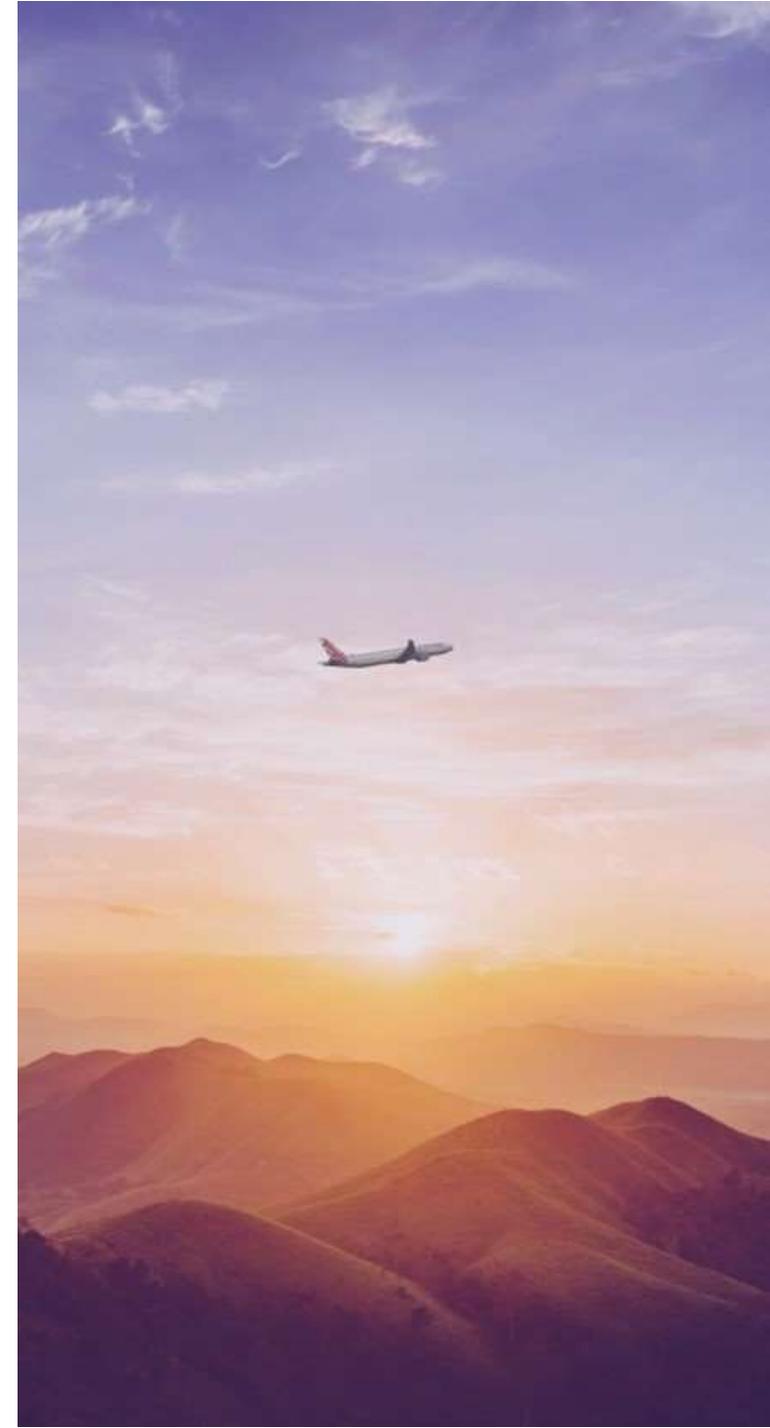


AIRCRAFT PARKING

**MANAGING CONTINUING AIRWORTHINESS
RETURN TO SERVICE OPTIMISATION**

**KEITH FERNANDES
MANAGER FLEET ENGINEERING**

JULY 16, 2020



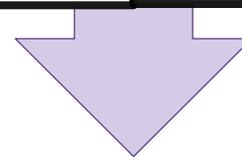
MANAGING CONTINUING AIRWORTHINESS

PRESERVE CERTIFICATE OF AIRWORTHINESS

PROTECT VALUABLE ASSETS

RISK ASSESSMENT & CONTROLS

PARKING/STORAGE PER ICA & APPROVED DEVIATIONS



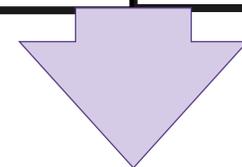
PROGRAM ADJUSTMENTS

LOCAL CONDITIONS / ENVIRONMENT

EXPOSED BARE METAL PROTECTION (CIC)

ADDITIONAL MAINTENANCE

ICA CHANGES / OEM PROGRAM EXTENSIONS



REPETITIVE INSPECTIONS

DEFECT MANAGEMENT

CORROSION / BIRD & INSECT NESTS

ENGINE & APU RUNS

CABIN VENTILATE / REL HUMIDITY

FUEL TREATMENTS

BIOCIDE RATIOS/PROCESS/TESTING

RETURN TO SERVICE - OPTIMISATION

1

SCHEDULED MAINTENANCE

- Acquit accumulated scheduled maintenance
- Deviations to extend maintenance – OEM technical justification & Regulatory approvals
- Mandatory ICAs

2

OUT OF PARKING MAINTENANCE

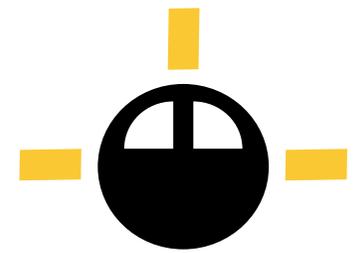
- Out of parking/storage maintenance instructions per ICA (AMM/SL)
- Open Defects, robbed parts
- Loadable Software updates – NDB, Terrain DB ...

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

Q & A



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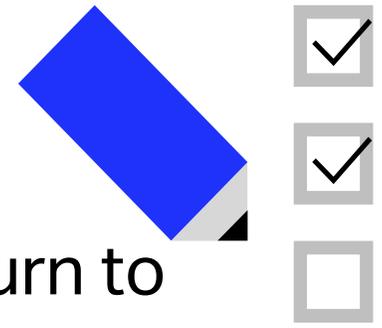


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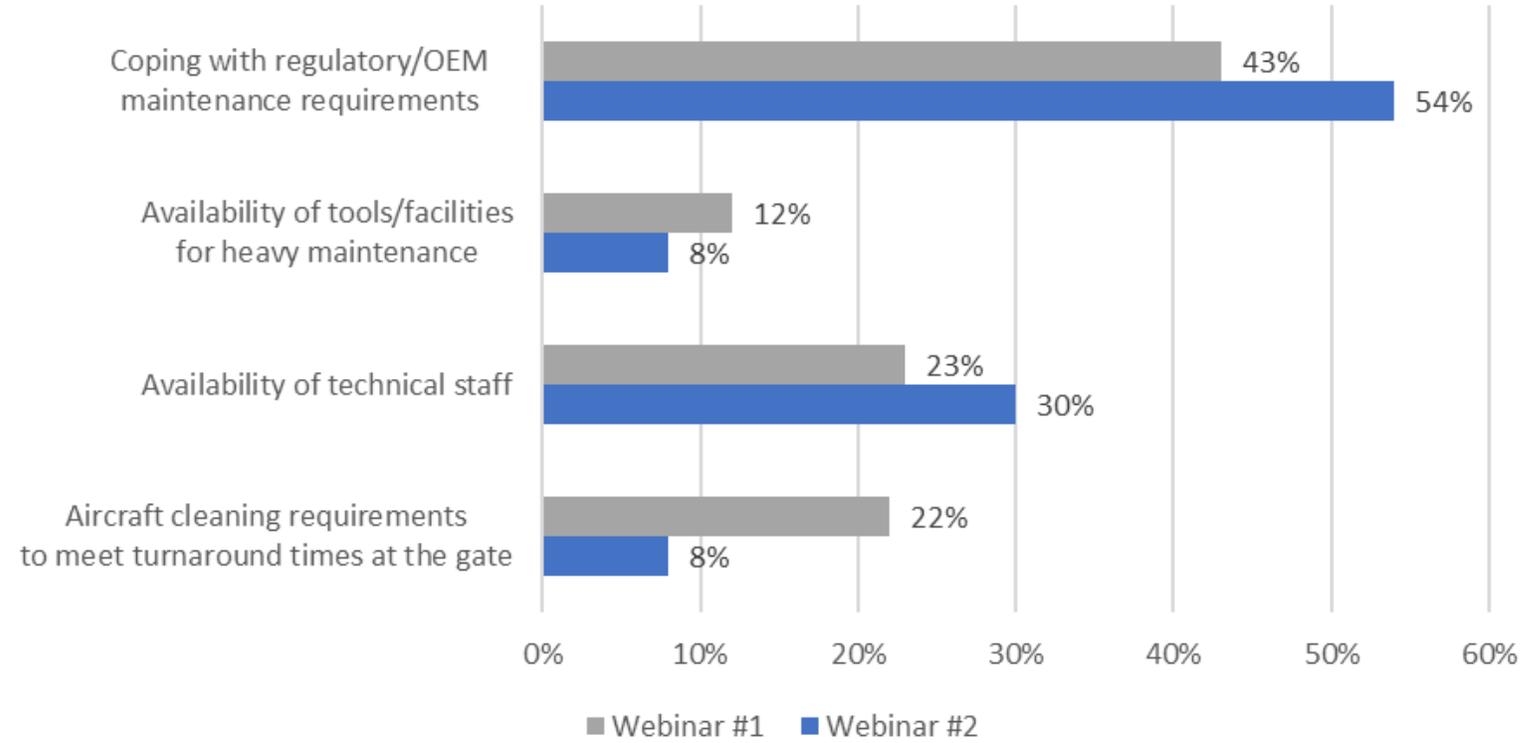
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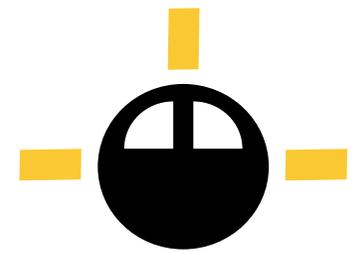
Poll #2



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



Q & A



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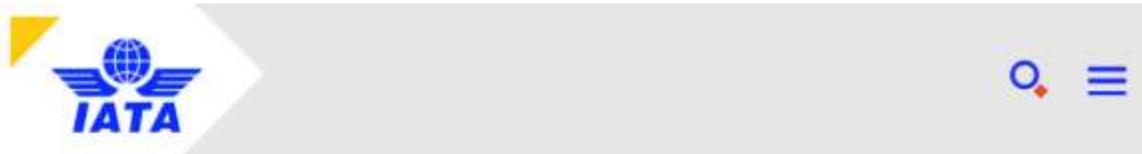


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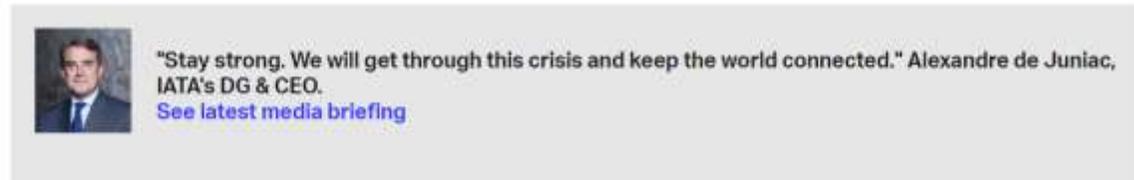
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Useful links (1/2)



www.iata.org



www.iata.org/en/programs/covid-19-resources-guidelines



airlines.iata.org/topic/covid-19

Useful links (2/2)

EASA

- COVID-19 Resources:

<https://www.easa.europa.eu/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



| | | |
|-------------|---|--|
| 27 JAN 2020 | COVID-19 Safety Information Bulletin | EASA issues SIB with recommendations in response to Coronavirus '2019-nCoV' outbreak |
| 04 FEB 2020 | | Coronavirus - Further Advice for Airlines and Their Crews |
| 13 MAR 2020 | COVID-19 Safety Directive | EASA issues safety directive to combat spread of COVID-19 via airline travel |
| 20 MAR 2020 | COVID-19 Guidance / Advice | EASA Interim guidance on Aircraft Cleaning and Disinfection in relation to the SARS-CoV-2 pandemic |
| 25 MAR 2020 | COVID-19 Guidance / Advice | EASA Guidance on Management of Crew Members in relation to the SARS-CoV-2 pandemic |
| 27 MAR 2020 | COVID-19 Notification | EASA processing new aircraft configurations for medical transport at high priority |

| | | |
|-------------|---------------------------------|--|
| 02 APR 2020 | COVID-19 Notification | Airworthiness aspects for transport of cargo in the passenger cabin of Large Aeroplanes |
| 03 APR 2020 | COVID-19 Notification | Potential false claims of EASA approval |
| 06 APR 2020 | COVID-19 Notification | Airworthiness aspects for installation of patient isolation devices and cockpit separations |
| 06 APR 2020 | COVID-19 Guidance / Advice | Guidance for helicopter operations in the light of the COVID-19 outbreak |
| 06 APR 2020 | COVID-19 General Information | EASA supports the safe repatriation of EU citizens during the COVID-19 crisis |
| 13 APR 2020 | COVID-19 Notification | Oversight of organisations during COVID-19 crisis <i>only affecting organisations where EASA is the competent authority</i> |
| 25 APR 2020 | COVID-19 Guidance / Advice | Guidelines for the transport of cargo in passenger aircraft <i>exemptions under Article 71(1) of Regulation 2018/1139</i> |

| | | |
|-------------|---|---|
| 21 MAR 2020 | COVID-19 Safety Information Bulletin | EASA published Safety Information Bulletin – Preparation for Aerodromes to resume operations |
| 23 MAR 2020 | COVID-19 Notification | EASA offers financial relief to aviation industry companies hit by COVID-19 |
| 23 MAR 2020 | COVID-19 Guidance / Advice | EASA/ECDC issue joint guidelines to assure health safety in air travel despite COVID-19 pandemic |
| 23 MAR 2020 | COVID-19 Guidance / Advice | Flight Time Limitation - temporary exemptions under Article 71(1) of Regulation (EU) 2018/1139 (the Basic Regulation) |
| 26 MAR 2020 | COVID-19 Guidance / Advice | EASA launches programme to monitor the implementation of its COVID-19 operational protocol |
| 22 MAR 2020 | COVID-19 Guidance / Advice | EASA releases posters summarising EASA/ECDC's COVID-19 guidance for passengers |

Guidelines Return to service of aircraft from storage – planned publication 20 Jul 2020

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.



Continuing Airworthiness domain

**Return to service of aircraft from storage:
guidelines in relation to the COVID-19 pandemic**



*Return to service of aircraft from storage:
guidelines in relation to the COVID-19 pandemic*

Issue # | Date

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IATA WEBINAR

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Thank you for attending!

