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Ref.: EC 2/76-20/67  
EC 6/3, AN 13/35

8 June 2020

**Subject:** ICAO Council Aviation Recovery Task Force (CART) Report and annexed guidance document *Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*

**Action required:** a) Note the CART Report and guidance document;  
b) Implement recommendations set out in the Report in coordination with ICAO Regional Offices and in line with respective regional plans

Sir/Madam,

I have the honour to inform you that the Council of the International Civil Aviation Organization (ICAO) at its 220th Session adopted a report of the Council's Aviation Recovery Task Force (CART) and its annexed guidance document *Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*, which aim at restarting the international air transport system and aligning its global recovery. The Report was developed through broad-based consultations with States and regional organizations, and with important contributions from the World Health Organization, the World Tourism Organization and key aviation industry groups.

When defining their approach and the subsequent implementation of measures, States are strongly encouraged to follow the key principles and recommendations outlined in the Report, as well as to pay particular attention to the set of recommended risk mitigation measures presented in the guidance document. While national and regional needs may require different approaches, these guidelines will facilitate mutual recognition and harmonization of aviation COVID-19 related measures across the globe in line with ICAO's standards, plans and policies.

Your Administration is invited to consult the Report and the guidance document on the COVID-19 Response and Recovery Platform (<https://www.icao.int/covid/Pages/default.aspx>) and to implement the recommendations in coordination with ICAO Regional Offices and according to the respective regional plans.

Accept, Sir/Madam, the assurances of my highest consideration.

Fang Liu  
Secretary General

**Enclosures:**

ICAO Council Aviation Recovery Task Force (CART) Report  
*Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*



**ATTACHMENT** to State Letter EC 2/76-20/67

**CART Report/Take-off Document**



# **International Civil Aviation Organization**

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## **Council Aviation Recovery Task Force (CART)**

Montréal, Canada, 27 May 2020

**REPORT**



## EXECUTIVE SUMMARY

From the onset of the coronavirus disease 2019 (COVID-19) crisis, the aviation system has faced ever-growing challenges. The International Civil Aviation Organization (ICAO), through the Council Aviation Recovery Task Force (CART), has resolved to partner with its Member States, international and regional organizations, and industry to address these challenges and to provide global guidance for a safe, secure and sustainable restart and recovery of the aviation sector.

This restart and recovery is best supported by an international approach which is based on 10 key principles:

- 1) **protect people: harmonized but flexible measures;**
- 2) **work as one aviation team and show solidarity;**
- 3) **ensure essential connectivity;**
- 4) **actively manage safety-, security- and health-related risks;**
- 5) **make aviation public health measures work with aviation safety and security systems;**
- 6) **strengthen public confidence;**
- 7) **distinguish restart from recovery;**
- 8) **support financial relief strategies to help the aviation industry;**
- 9) **ensure sustainability;** and
- 10) **learn lessons to improve resilience.**

Globally- and regionally-harmonized, mutually-accepted measures are essential. Such measures should be compatible with safety and security requirements; proportionate to the improvement of public health; flexible where possible to allow for a viable economic recovery; and safeguarded not to distort markets. Measures that impose costs or burdens on the industry must be carefully considered and justified by safety, public health, and confidence of passengers and crew.

These measures can be regrouped in four categories:

- a) **Aviation safety-related measures.** States may temporarily depart from ICAO Standards but must do so in a manner that does not compromise safety and security, and which is duly reported to ICAO. These departures should not be retained beyond the crisis.
- b) **Aviation public health-related measures.** States should establish public health procedures aligned with the guidance included in the annexed document, *Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*. The necessity of these measures should be regularly reviewed. The measures which are no longer relevant should be discontinued when the need for their application has ceased to exist.

- c) **Security- and facilitation-related measures.** States should enhance cross-sectoral coordination by establishing a National Air Transport Facilitation Committee or equivalent, and systematically use the Passenger Health Locator Form as a reference. It is States' responsibility to maintain security across all operations.
- d) **Economic and financial measures.** These should be inclusive, targeted, proportionate, transparent, temporary and consistent with ICAO's policies, while striking an appropriate balance of interests without prejudice to fair competition.

States and the civil aviation industry will need to commit towards building a more resilient air transport system, supported by clear communication and the recognition of aviation's vital role as a worldwide enabler, more so in times of crisis. In particular, States should identify and bridge gaps, with ICAO's assistance, to ensure adequate support to vulnerable segments of the international community and provision of essential services. A major element for future preparedness will involve analysing insights and experience gained from this crisis to improve processes and coordination mechanisms.

The success of aviation's recovery today and future resilience is best achieved with collective efforts among stakeholders across regions and sectors. Rigorous follow-up to the recommendations and measures outlined in this report will be required at all levels, local, national and international. The measures will also need to be adjusted to respond to the evolving situation. For that purpose, ICAO, in cooperation with all civil aviation stakeholders, should continue to monitor and assess the situation by seizing the opportunity to reinforce the aviation ecosystem.

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## RECOMMENDATIONS

This is a summary of recommendations contained in this Report.

### **Recommendation 1**

During the global COVID-19 outbreak, Member States should continue updating COVID-19 Contingency Related Differences (CCRDs) in the Electronic Filing of Differences (EFOD) subsystem.

### **Recommendation 2**

Member States should avoid retaining any COVID-19 related alleviation measures as soon as normal operations are resumed. Differences that remain after the contingency if any should be filed in the EFOD system.

### **Recommendation 3**

Member States should expedite the development of guidance for safety management of new operations or operation change during this crisis.

### **Recommendation 4**

Global and regional harmonization of procedures is essential to strengthen public and passenger confidence in air travel. To that end, Member States should establish aviation public health procedures aligned with the guidance in the *Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*.

### **Recommendation 5**

In order to support the fastest possible return to normal aviation operations, Member States should regularly review the necessity of continuing the application of risk mitigation measures as the risk of COVID-19 transmission diminishes; and measures which are no longer needed should be discontinued.

### **Recommendation 6**

Member States that have not done so should immediately establish a National Air Transport Facilitation Committee (or equivalent) as required by Annex 9 to increase national level cross-sectoral coordination.

### **Recommendation 7**

Member States should systematically use a Passenger Health Locator Form to ensure identification and traceability of passengers to help limit the spread of the disease and resurgence of the pandemic.

### **Recommendation 8**

While temporarily adapting their security-related measures, using the guidance provided, Member States should strengthen their oversight system to ensure these measures are consistently applied with the objective of protecting aviation against acts of unlawful interference.

**Recommendation 9**

Member States should take measures to ensure that relevant personnel are provided training to identify and manage unruly passenger situations related to non-respect of essential aviation public health and safety measures.

**Recommendation 10**

Member States should consider appropriate extraordinary emergency measures to support financial viability and to maintain an adequate level of safe, secure and efficient operations, which should be inclusive, targeted, proportionate, transparent, temporary and consistent with ICAO's policies, while striking an appropriate balance among the respective interests without prejudice to fair competition and compromising safety, security and environmental performance.

**Recommendation 11**

Member States should facilitate information-sharing and exchange on their actions and best practices by contributing to an ICAO database of measures.

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## 1. SETTING THE SCENE

### **Role of civil aviation during the unprecedented crisis**

The COVID-19 pandemic has imposed an enormous human, social and financial toll on the world and civil aviation<sup>1</sup>. At the same time, civil aviation has proven its role as a worldwide enabler in overcoming hardship, through vital air cargo services and in support of global supply chains, as well as timely emergency and humanitarian response. Air passenger services had an instrumental role when repatriating hundreds of thousands of people during the early stages of this public health emergency. However, these important contributions cannot hide the fact that severely reduced air services put a heavy strain on the global economy and on our societies.

It is important to recognize aviation's role in economic growth, job creation, delivery of goods and services, and global connectivity. It is a sector that brings the world closer together, promotes its social and cultural richness, and provides critical access to remote regions, isolated islands and other vulnerable States. Restoring air connectivity will be a key contribution to a successful and rapid recovery of the global economy post-COVID-19.

### **Early action by ICAO to protect the civil aviation ecosystem**

Since the early stages of the COVID-19 outbreak, ICAO has provided support and guidance to States and the civil aviation industry on the expedited release and clearance of goods carried by air, licensing and certification of crew, aviation safety risk management and facilitation of repatriation flights. To resolve disruptions to trade and global supply chains, ICAO worked to enable expedited air cargo movements, coordinated delivery of humanitarian goods through the United Nations Humanitarian Air Service (UNHAS), and most recently published guidance for the implementation of Public Health Corridors to protect crews operating cargo flights<sup>2</sup>.

These practical actions stemmed from efforts orchestrated by Member States, regional and international organizations especially the World Health Organization (WHO) and the World Tourism Organization (UNWTO) as well as the industry and through fora such as the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA).

### **The ICAO Council Aviation Recovery Task Force (CART)**

Following the *Council Declaration on the novel coronavirus (COVID-19)* adopted on 9 March 2020, the ICAO Council Aviation Recovery Task Force (CART) was established. This task force, composed of representatives from States, and international, regional and industry organizations and supported by the ICAO Secretariat, was tasked to identify and recommend strategic priorities and policies to support States and industry based around three pillars:

- a) coping with the challenges faced by States and the civil aviation industry due to the COVID-19 pandemic in the immediate term;
- b) facilitating the restart of aviation operations in a safe, secure, sustainable and orderly manner as soon as practicable taking into consideration the evolution of the pandemic and decisions by international and national public health authorities; and
- c) building a more resilient aviation system in the longer term.

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<sup>1</sup> <https://www.icao.int/sustainability/Pages/Economic-Impacts-of-COVID-19.aspx>

<sup>2</sup> <https://www.icao.int/Security/COVID-19/Pages/default.aspx>

## 2. KEY PRINCIPLES

### Ten (10) key principles for a safe, secure and sustainable recovery

A safe, secure and sustainable restart and recovery of the global aviation sector is best supported by an internationally harmonized approach based on the following principles:

1. ***Protect People: Harmonized but Flexible Measures.*** States and industry need to work together to put in place harmonized or mutually accepted risk-based measures to protect passengers, crew, and other staff throughout the travel experience.
2. ***Work as One Aviation Team and Show Solidarity.*** The respective plans of ICAO, States, international and regional organizations, and the industry should complement and support each other. While national and regional needs may require different approaches, States should harmonize responses to the extent possible, in line with ICAO's standards, plans and policies.
3. ***Ensure Essential Connectivity.*** States and industry should maintain essential connectivity and global supply chains, especially to remote regions, isolated islands and other vulnerable States.
4. ***Actively Manage Safety-, Security- and Health-related Risks.*** States and industry should use data-driven systemic approaches to manage the operational safety-, security-, and health-related risks in the restart and recovery phases, and adapt their measures accordingly.
5. ***Make Aviation Public Health Measures Work with Aviation Safety and Security Systems.*** Health measures must be carefully assessed to avoid negatively impacting aviation safety and/or security.
6. ***Strengthen Public Confidence.*** States and industry need to work together, harmonizing practical measures and communicating clearly, to ensure passengers are willing to travel again.
7. ***Distinguish Restart from Recovery.*** Restarting the industry and supporting its recovery are distinct phases which may require different approaches and temporary measures to mitigate evolving risks.
8. ***Support Financial Relief Strategies to Help the Aviation Industry.*** States and financial institutions, consistent with their mandates, should consider the need to provide direct and/or indirect support in various proportionate and transparent ways. In doing so, they should safeguard fair competition and not distort markets or undermine diversity or access.
9. ***Ensure Sustainability.*** Aviation is the business of connections, and a driver of economic and social recovery. States and industry should strive to ensure the economic and environmental sustainability of the aviation sector.
10. ***Learn Lessons to Improve Resilience.*** As the world recovers, the lessons learned have to be used to make the aviation system stronger.

### A risk-based and gradual approach to restoring civil aviation resilience

The COVID-19 pandemic has highlighted the complex nature in which aviation operates, both within and between States. Such extraordinary situations require collaborative decision-making based on currently available information and with the respective assessment and management of risks, leveraging applicable methodologies and tools, that extend beyond the boundaries of managing aviation safety and security risks.

Considering the global economic and social impact of the crisis, the path to recovery is likely to be unpredictable and challenging. It will take place through a phased process and call for unprecedented measures and solutions. States may find themselves in different phases at different times, depending on the scale and development of the public health crisis.

States should give careful consideration to the potential impacts of their decisions on the efforts of other States in managing the risks, while recognizing the sovereignty and responsibility of States over their national recovery plans. They, along with industry, should look to learn lessons from those who are in a different phase in managing the crisis. And they should endeavour to maintain an appropriate balance in their planning for the benefit of all civil aviation stakeholders, as well as a proportionate approach with regards to other sectors of the economy.

### 3. A FLIGHTPLAN FOR INTERNATIONAL CIVIL AVIATION RESTART AND RECOVERY

The global aviation system is a network, and mitigation measures are only as strong as the weakest link. This principle is especially important in strengthening public confidence worldwide. While national and regional needs may require different approaches, it is of paramount importance to avoid a global patchwork of incompatible health safety measures. States should implement globally and regionally-harmonized, mutually-accepted measures that do not create undue economic burdens or compromise the safety and security of civil aviation.

Beyond the public health emergency, COVID-19 also presents systemic and organizational risks for aviation safety due to the financial situation that most airlines and service providers currently face. A healthy aviation industry is critically important for ensuring high levels of aviation safety and security. Based on global objectives and performance-based standards, COVID-19 risk mitigation measures should be flexible and targeted to ensure that a vibrant and competitive global aviation sector will drive the economic recovery. Measures that impose costs or burdens on the industry must be carefully considered and justified by safety, security, public health, confidence of passengers and crew, or other benefits.

#### **Aviation safety-related measures**

At the outbreak of COVID-19, States were faced with the urgent need to temporarily depart from ICAO Standards. A focus of ICAO has therefore been to support States in managing such alleviations while ensuring that any associated safety risks were adequately addressed, facilitating recognition and acceptance by other States, and making that information readily available for all stakeholders.

Physical distancing practices, closure of workspaces in Civil Aviation Authorities (CAAs) in some States and other measures as a result of the COVID-19 outbreak made it difficult for some States to comply fully with certain ICAO Standards. The Chicago Convention requires States to implement ICAO Standards or to file differences if their regulations depart from those Standards. ICAO has set up a tool to identify any temporary differences from ICAO Standards on certification and licensing that are necessary to maintain operations during the COVID-19 pandemic via a user-friendly interface and making the information readily available<sup>3</sup>. ICAO Regional Offices and Regional Safety Oversight Organizations are supporting States in uploading harmonized information, as well as in implementing mitigation measures at the regional level. Initial response has been very positive.

ICAO has expedited the development and publication of new guidance, *Handbook for CAAs on the Management of Aviation Safety Risks related to COVID-19* (Doc 10144)<sup>4</sup> to support the continuation of safe operations. ICAO also developed material, including quick reference guides on establishing and implementing alleviations for provisions identified in the tool and for other operational issues that States are facing during this

<sup>3</sup> <https://www.icao.int/safety/COVID-19OPS/Pages/ccrd.aspx>

<sup>4</sup> <https://www.icao.int/safety/SafetyManagement/Pages/COVID-19-Safety-Risk-Management.aspx>

contingency. This material and other best practices are published on a webpage<sup>5</sup> to make them available for the benefit of the global aviation community.

States and industry are already using these ICAO tools very effectively. States are encouraged to keep the information updated during the global crisis. Those few that have yet to participate are invited to do so. Making this information available ensures regulatory certainty for operators of States that are still in contingency and continue with alleviations, when flying to another State. States should be mindful of the safety risk of prolonged alleviation and put in place the necessary mitigating measures to offset those risks.

As operators were having difficulties in positioning their aircraft crew due to an incorrect interpretation of the definitions for passenger and cargo aircraft in Annex 18 – *The Safe Transport of Dangerous Goods by Air*<sup>6</sup>, ICAO guidance was issued to ensure the accurate interpretation and avoid unnecessary operational constraints<sup>7</sup>.

#### **Recommendation 1**

During the global COVID-19 outbreak, Member States should continue updating COVID-19 Contingency Related Differences (CCRDs) in the Electronic Filing of Differences (EFOD) subsystem.

#### **Recommendation 2**

Member States should avoid retaining any COVID-19 related alleviation measures as soon as normal operations are resumed. Differences that remain after the contingency if any should be filed in the EFOD system.

#### **Recommendation 3**

Member States should expedite the development of guidance for safety management of new operations or operation change during this crisis.

### **Aviation public health-related measures**

ICAO set up the *Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation* (CAPSCA) programme in 2006 in response to the SARS crisis<sup>8</sup>. As a voluntary multi-sectoral platform, CAPSCA combines resources and expertise from both aviation and public health sectors to support the preparedness for, and management of, public health events affecting civil aviation. The CAPSCA network links ICAO, the World Health Organization (WHO) and other United Nations (UN) entities, International Aviation Organizations, Civil Aviation Authorities and Public Health Organizations at global, regional and national levels.

CAPSCA recommended the implementation of the ICAO Public Health Corridor (PHC) concept to engender confidence in the restart. The PHC concept was developed using a risk-based approach, taking into account relevant safety management principles, WHO recommendations and aviation sector pandemic guidance. The first guidance material developed under this concept, *Implementing a Public Health Corridor to Protect Flight Crew during the COVID-19 Pandemic (Cargo Operations)*<sup>9</sup>, aims at the facilitation of essential cargo flights to support supply chain operations in the delivery of essential medical supplies as part of the global response to the pandemic.

<sup>5</sup> <https://www.icao.int/safety/COVID-19OPS/Pages/default.aspx>

<sup>6</sup> <https://www.icao.int/safety/DangerousGoods/Pages/annex-18.aspx>

<sup>7</sup> <https://www.icao.int/safety/COVID-19OPS/Pages/DangerousGoods.aspx>

<sup>8</sup> <https://www.capsca.org/CoronaVirusRefs.html>

<sup>9</sup> <http://www.capsca.org/Documentation/CoronaVirus/eb030e.pdf>

## **A baseline set of health risk mitigation measures as a core enabler for recovery**

CART considered all of the aforementioned initiatives when evaluating the critical priorities to be addressed to ensure the restart and recovery of aviation. Passenger operations were identified as a key area that required further guidance.

The guidance document, *Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*, in the **Attachment** to this report is the core element of a strategy for international civil aviation recovery. This guidance document puts forward a comprehensive framework of recommended measures to address and mitigate the risk for passengers and aviation workers during all phases of a journey. It has been developed by CART in collaboration with experts from Singapore, United States, Zambia, and the following organizations: WHO, European Union (EU)/ European Aviation Safety Agency (EASA), Arab Civil Aviation Organization (ACAO), Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), International Air Transport Association (IATA) and International Coordinating Council of Aerospace Industries Associations (ICCAIA).

The pace and stages of the COVID-19 outbreak have differed across the world; and have therefore required appropriate and adapted mitigation measures. In the second quarter of 2020, significant parts of the global aviation sector were either in a stage of minimal movement, or just about to leave that stage. These recommended measures are therefore meant to be applied according to the evolving situation to support a risk-based, safe and secure resumption of passenger traffic until the pandemic is brought under control.

The guiding considerations for developing the Take-off document are to:

- ***Remain Focused on Fundamentals: Safety, Security and Efficiency;***
- ***Promote Public Health and Confidence among Passengers, Aviation Workers, and the General Public;*** and
- ***Recognize Aviation as a Driver of Economic Recovery.***

The recommended measures should strengthen aviation public health and consumer confidence while minimising negative operational and efficiency impacts. The measures should capitalise on the sector's risk management experience and be as consistent as possible, yet flexible enough to respond to regional or situational requirements. Incorporating new public health measures into the aviation system in a practical manner should further enable the sector to support economic recovery and growth.

The Take-off document recommends risk mitigation measures that are generally applicable to all phases of air passenger and cargo transport under four separate modules, i.e. airports, aircraft, crew members and cargo services. These measures apply to the entire passenger journey, from arriving at the terminal, to leaving the baggage claim area, and also address aviation workers in the cabin, on the flight deck and on the ground. The document recommends clear and consistent information to passengers and crew, the use of face coverings and masks, physical distancing and sanitation procedures amongst other measures. Together, the measures outlined in the document form the basis upon which a restart and recovery plan can be built. This Take-off document will facilitate global and regional harmonization in aviation health safety, while giving States the flexibility to implement measures based on their risk assessments and stage of the outbreak.

The Take-off document is a “living” document. It will be updated as more scientific evidence becomes available, and in view of practical experience when applying the recommended measures. The framework of the document could be adapted to other types of operations and aviation activities such as general aviation, air traffic control, and maintenance organizations. The application of those public health measures should be monitored and evaluated on a dynamic basis as the situation evolves, to avoid retention by default, unnecessary regulatory burden and inefficiencies.

**Recommendation 4**

Global and regional harmonization of procedures is essential to strengthen public and passenger confidence in air travel. To that end, Member States should establish aviation public health procedures aligned with the guidance in the *Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*.

**Recommendation 5**

In order to support the fastest possible return to normal aviation operations, Member States should regularly review the necessity of continuing the application of risk mitigation measures as the risk of COVID-19 transmission diminishes; and measures which are no longer needed should be discontinued.

**Security- and facilitation-related measures***States' obligations under Annex 9 – Facilitation provisions*

In light of border closures and travel restrictions in response to the COVID-19 pandemic, measures that facilitate the movement of people and goods (known as “facilitation” under Annex 9 to the Chicago Convention) are more vital than ever in the recovery of aviation post-COVID.

The level of States' non-compliance with relevant Annex 9 Standards and Recommended Practices (SARPs) poses risks to an effectively coordinated civil aviation response to a pandemic. Limited use by States of a Passenger Health Locator Form as recommended by ICAO undermines States' ability to perform contact tracing following the arrival of cases of infection. Establishing a National Air Transport Facilitation Committees, as required by Annex 9, or its equivalent, and ensuring its effective functioning, can deliver the level of coordination amongst government and industry stakeholders required for prompt and effective actions.

Increased use of advanced technologies is encouraged to facilitate contactless processing of passengers at various stages of their journey.

An Implementation Package composed of standardized training and tools will be available in June 2020 to guide the implementation of the relevant facilitation provisions by States' authorities, aviation service providers and supply chain stakeholders.

*Aviation security guidance*

Adjustment to aviation security-related measures will also be needed. A guidance document, *Aviation Security Contingency Plan during COVID-19 Pandemic*, will be published in June 2020 as a reference in maintaining an adequate level of security in the current circumstances. This guidance will recommend procedures at airport security checkpoints and for other aspects of aviation security such as access control, surveillance, security of cargo and mail, aircraft security and staff training.

*Treatment of unruly and disruptive passengers*

Increased stress imposed on passengers through new processes and their overall travel experience may lead to increased disputes between passengers or with the crew. For guidance on the management of such occurrences, States should refer to the *Manual on the Legal Aspects of Unruly and Disruptive Passengers* (Doc 10117).

Passenger's understanding of and compliance with the aviation public health and safety measures is essential for the effectiveness of such measures, and for the trust that other passengers will place in the safety of their journey. It is the responsibility of States to raise public awareness of the consequences of disobeying crew

instructions or disturbing good order and discipline on board aircraft. Authorities should publish the relevant information and identify the best channels to reach out to passengers. States are expected to review their national legislation to ensure that unruly and disruptive behaviour relative to COVID-19 measures is properly covered.

States should also ensure that airlines' staff are appropriately trained in passenger service skills, in the recognition of the signs of a potential unruly behaviour of a passenger and in crisis containment under these exceptional circumstances.

**Recommendation 6**

Member States that have not done so should immediately establish a National Air Transport Facilitation Committee (or equivalent) as required by Annex 9 to increase national level cross-sectoral coordination.

**Recommendation 7**

Member States should systematically use a Passenger Health Locator Form to ensure identification and traceability of passengers to help limit the spread of the disease and resurgence of the pandemic.

**Recommendation 8**

While temporarily adapting their security-related measures, using the guidance provided, Member States should strengthen their oversight system to ensure these measures are consistently applied with the objective of protecting aviation against acts of unlawful interference.

**Recommendation 9**

Member States should take measures to ensure that relevant personnel are provided training to identify and manage unruly passenger situations related to non-respect of essential aviation public health and safety measures.

**Economic and financial measures**

In the global effort to contain the spread of COVID-19, governments have imposed stringent travel restrictions, closed borders, and severely limited the movement of people. These decisions as well as the global economic downturn have had significant impact on the viability of the civil aviation industry worldwide.

Taking into consideration the direct and indirect economic benefits generated by air transport to their national economies, States should provide the most appropriate means for supporting stakeholders across the civil aviation sector, if and when deemed necessary, possibly through regional or international economic cooperation as well as with the private sector and financial institutions. Such extraordinary emergency measures could range from regulatory relief, operational flexibilities, grants of extra-bilateral air service rights or traffic rights, to economic stimulus or direct financial assistance.

These measures must be inclusive, targeted, proportionate, transparent, temporary, limited to what is necessary to mitigate the impact of COVID-19 and consistent with ICAO's policies while striking an appropriate balance among the respective interests without prejudice to fair competition or compromising safety, security and environmental commitments.

Capabilities of States to provide support to their industry vary greatly. As diverging and competing requests will be made by different industry stakeholders, States will need to adhere to principles of good governance,

through corresponding institutional and regulatory frameworks, in order to reconcile objectives and needs with responsibilities and resources, often in the face of rivalling, and/or conflicting priorities.

**Recommendation 10**

Member States should consider appropriate extraordinary emergency measures to support financial viability and to maintain an adequate level of safe, secure and efficient operations, which should be inclusive, targeted, proportionate, transparent, temporary and consistent with ICAO's policies, while striking an appropriate balance among the respective interests without prejudice to fair competition and compromising safety, security and environmental performance.

**Regular monitoring and sharing of experiences through ICAO**

The level of implementation of measures contained in the previous sub-sections of this report will need to be regularly monitored. ICAO, as the specialized UN agency for the international civil aviation system, should be the central resource for this, including the documentation of all actions taken by States with regards to these measures.

In playing this role, ICAO should facilitate the sharing of experiences and best practices among States and serve as basis to identify gaps and needed support. Through this information, ICAO will be able to provide appropriate, targeted and timely guidance, training and assistance to Member States for the effective implementation of measures outlined in this Report.

**Recommendation 11**

Member States should facilitate information-sharing and exchange on their actions and best practices by contributing to an ICAO database of measures.

**4. BUILDING RESILIENCE**

States have the primary role in developing their own air transport system, which should be resilient to future crises and underpinned by effective regulatory oversight capability and capacity. ICAO encourages States to adopt a flexible approach to enable a sustainable recovery and growth of air transport at the national, regional and/or global level. To this end, measures should be harmonized to the extent possible, in line with ICAO's standards, plans and policies, proportionate to the evolution of the public health situation, and coordinated among civil aviation, public health authorities and other ministries, as well as with relevant international and regional authorities, and industry.

**High-level commitments**

Building the necessary resilience will depend on a high-level of commitment and engagement at every level, namely Governments (including national civil aviation and public health authorities), international and regional organizations (including ICAO), and the entire civil aviation industry, as well the travelling public. Recalling aviation's contribution towards national, regional and global priorities, States are urged to engage political efforts and willingness to lead a full post-COVID-19 recovery and to plan for future crises as part of their national aviation strategies. To strengthen this commitment, ICAO should consider convening a high-level meeting.

## **International obligations**

In addressing COVID-19 and future crises, it is important that obligations and commitments under international agreements and practices are upheld. This includes the need to pay particular attention to global standards, plans and policies related to all ICAO's Strategic Objectives.

This pandemic has reaffirmed civil aviation as a worldwide enabler of support and recovery in times of crisis. In the process of building resilience, States should recognize the vital contributions of aviation and strive for the orderly recovery and long-term sustainability, consistent with the United Nations 2030 Sustainable Development Goals.

## **Clear communication**

The road to a more resilient aviation system is underpinned by comprehensive advocacy and outreach, including clear, accurate, transparent and continuous communication among all stakeholders, as well as towards the general public. Harmonized and comprehensible information, emphasizing the safety, security and operational integrity of the aviation systems will strengthen compliance with the risk mitigation measures taken and help build resilience while dealing with recovery and growth in demand.

ICAO, civil aviation and public health authorities, in cooperation with the industry, should communicate clearly and effectively to strengthen the confidence of the travelling public and help individuals understand how they can contribute to a safe travel journey. Digital platforms should be used wherever feasible. ICAO should support this by publicizing this report.

## **Support to States and regional communities**

Aviation plays a particularly important role in meeting the needs of the vulnerable segments of the international community, namely Small Island Developing States, Landlocked Developing Countries, and Least Developed Countries, as well as in providing essential connectivity to remote regions and isolated islands.

ICAO should identify the resources necessary for the coordination and provision of implementation packages containing assistance, guidance, training and other services to States in need under the ICAO *No Country Left Behind (NCLB)* initiative. International financial institutions are called on to provide financial/in-kind assistance for States that do not have the means and capacity to meet their needs and to mitigate the existing and future risks.

## **Lessons learned**

While the immediate priority is to manage the current crisis, it is vital to identify lessons learned and experience gained from this challenge as the world recovers and the civil aviation industry moves onto a more stable footing. States and the industry will need to seize the momentum for a “bigger picture” analysis of the measures and steps taken during the crisis which will serve as foundation for defining a more resilient, sustainable aviation sector in the future.

Building on the insights and practices, particular focus should be placed on the improvement of risk management and crisis preparedness in response to unforeseen situations. This could be achieved by considering the extension of the scope of State Safety Programmes (SSP) in Annex 19 to the Chicago Convention – *Safety Management*, allowing States and service providers to manage risks in a more integrated manner. Such preparedness will rely on States' capabilities to strengthen their national emergency planning, as well as on the establishment of clear coordination, communication mechanisms and, processes at all levels to be triggered in the event of a future crisis.

ICAO should lead and facilitate the review of global standards, plans and policies, especially health-related provisions in coordination with the WHO, to support States in building a resilient aviation system. As part of this work, ICAO should consider the recommendations from the recently-created ICAO Task Force on Health Issues Outbreaks in Aviation which will review all the health-related provisions and corresponding guidance material contained in Annex 9 to the Chicago Convention. States are encouraged to contribute to the work of the Task Force.

In light of this, it is important for States to embrace the speed of world's change and to adopt innovative solutions enabling, inter alia, to make aviation regulatory processes and governance, including ICAO's own systems and processes, more streamlined and responsive to future such events. The lessons learned from the flexible work and meeting arrangements, accelerated digitalization, and ad-hoc, fast-tracking of proposals should all be incorporated into the aviation regulatory operational processes.

## 5. WAY FORWARD

Acknowledging the uncertainty surrounding the evolution of the COVID-19 pandemic, ICAO and all stakeholders involved in the production of this report emphasize the importance of adopting a flexible, progressive approach to enable a swift restoration of air transport and connectivity, which should be proportionate to the improvement of the public health situation, taking into account expert medical advice and existing safety and security standards. In addition, we should remain vigilant of the risk of further outbreak and plan accordingly, being prepared to reintroduce measures if necessary.

When defining their approach and the subsequent implementation of measures, States are strongly encouraged to follow the ten key principles in Section 2 and the eleven associated recommendations in Section 3, as well as to pay particular attention to the set of recommended risk mitigation measures presented in the annexed document *Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis*. A successful path from this crisis will rely on a diligent and consistent follow-up to these recommendations and measures at all levels, including ICAO.

With the unfolding public health situation, the mitigation and containment measures of States are being progressively alleviated, which should be accompanied by a proportionate opening of skies globally. The measures outlined in this report may need to be adjusted according to the epidemiological situation to ensure tangible results and a successful restart and recovery. ICAO, in cooperation with all civil aviation stakeholders, should continue to monitor and assess the situation by leveraging this harmonized global approach for a timely response to the evolution of the crisis and by seizing the opportunity to reinforce the aviation ecosystem.

The success of aviation's recovery today and preparedness for tomorrow can only result from collective efforts. A closer and continuous collaboration between ICAO and civil aviation industry, as well as international and regional organizations, will be beneficial for information sharing and a harmonized global response suitable for all States, regions and stakeholders.

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# ATTACHMENT

## **International Civil Aviation Organization**

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### **Council Aviation Recovery Task Force (CART)**

### **Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis**

Montréal, Canada, 27 May 2020

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## 1. Background

The impact of the coronavirus disease (COVID-19) pandemic on global air transport is without precedent. Airports have seen a 28.4 per cent decline in global passenger traffic volumes for the first quarter of 2020, equivalent to a reduction of 612 million passengers in absolute terms. These volumes (domestic and international traffic) are expected to decrease by 50.4 per cent for 2020 as a whole as compared to 2019 figures<sup>1</sup>. ICAO estimates that, by the end of 2020, the COVID-19 impact on scheduled international passenger traffic could reach reductions of up to 71 per cent of seat capacity and up to 1.5 billion passengers globally<sup>2</sup>. Airlines and airports face a potential loss of revenue of up to 314 billion<sup>3</sup> USD and 100 billion USD, respectively, for 2020.

## 2. Overview

2.1 This document provides a framework for addressing the impact of the current COVID-19 pandemic on the global aviation transportation system. The appendix to this document includes mitigation measures needed to reduce public health risk to air passengers and aviation workers while strengthening confidence among the travelling public, the global supply chain and governments. This will assist in accelerating demand for essential and non-essential air travel impacted by COVID-19.

2.2 With help and guidance from the civil aviation stakeholder community, ICAO recommends a phased approach to enable the safe return to high-volume domestic and international air travel for passengers and cargo. The approach introduces a core set of measures to form a baseline aviation health safety protocol to protect air passengers and aviation workers from COVID-19. These measures will enable the growth of global aviation as it recovers from the current pandemic. It is, however, important to recognize that each stage of that recovery will need a recalibration of these measures in support of the common objectives, which are to safely enable air travel, incorporate new public health measures into the aviation system, as well as support economic recovery and growth. Our work must recognize the need to reduce public health risk while being sensitive to what is operationally feasible for airlines, airports and other aviation interests. This is essential to facilitate the recovery during each of the forthcoming stages.

## 3. Objectives

In the aftermath of the COVID-19 outbreak, States, including government regulators, airports, airlines and aircraft manufacturers among other stakeholders of the aviation ecosystem, developed, in coordination with public health authorities, a set of measures aimed at reducing health risks to air travellers, aviation workers and the general public. These measures, applicable to States, airport operators, airlines and others in the air transport industry, are designed to enable a consistent and predictable travel experience. They will also contribute to the efficient, safe, secure and sustainable transport by air of an increasing number of passengers and cargo, and will minimize the risk of COVID-19 transmission between and among these groups and the general public. The implementation of these measures will facilitate and strengthen the global recovery from the COVID-19 pandemic.

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1. [ACI Economic impact assessment of COVID-19 on the airport business](#) (May release)
  2. [ICAO Economic Impact Analysis](#)
  3. [IATA Economics Fourth Impact Assessment](#) (April release)

#### 4. Guiding considerations

4.1 In developing the measures contained in the appendix, the drafters were guided by the following considerations:

- a) **Remain focused on fundamentals: safety, security, and efficiency;**
- b) **Promote public health and confidence among passengers, aviation workers, and the general public; and**
- c) **Recognize aviation as a driver of economic recovery.**

4.2 Based on these guiding considerations, the drafters further agreed that these measures should be:

- commensurate to the risk level and shall not compromise aviation safety and security;
- able to capitalize on the sector's longstanding experience and apply the same principles used for safety and security risk management. This includes monitoring compliance, reviewing the effectiveness of measures at regular intervals, and adapting measures to changing needs as well as improved methods and technologies;
- able to minimize negative operational and efficiency impacts while strengthening and promoting public confidence and aviation public health;
- consistent and harmonized to the greatest extent appropriate, yet flexible enough to respond to regional or situational risk-assessment and risk-tolerance. The acceptance of equivalent measures based on shared principles and internationally recognized criteria will be a fundamental enabler to restore air services on a global level;
- supported by medical evidence and consistent with health best practices;
- non-discriminatory, evidence-based and transparent;
- cost effective, proportionate and not undermining to the equal opportunity to compete;
- highly visible and communicated effectively and clearly to the aviation community as well as the general public; and
- consistent with international requirements, standards and recommended practices applicable to aviation and public health.

## 5. Risk-based stages for mitigation measures

5.1 Resumption of higher volumes of passenger air travel will be dependent on a number of factors, including foremost public health agency guidelines (driven by travel risk levels), governmental travel restrictions and requirements, passenger confidence, and air carrier and airport operational capacity.

5.2 A risk-based approach will enable the transition between stages of restarting operations and the adjustment of mitigation measures based on risk, while recognizing that reverting to previous stages may be necessary. The goal is to maximize consistency and develop criteria for data reporting and the monitoring processes in support of evaluation and progression to the next stage(s). It is currently not feasible to provide any specificity of timing between these stages. At the time this document was published, most of commercial passenger aviation was in Stage 0 or 1.

- **Stage 0:** A situation with travel restrictions and only minimal movement of passengers between major domestic and international airports.
- **Stage 1:** Initial increase of passenger travel. This initial stage will coincide with relatively low passenger volumes, allowing airlines and airports to introduce aviation public health practices appropriate to the volume. There will be significant challenges as each stakeholder community adapts to both increased demand and the new operational challenges associated with risk mitigation. Health measures for travel required at airports will need to, at a minimum, match those from other local modes of transport and infrastructure.
- **Stage 2:** As health authorities review the applicability of measures based on recognized medical criteria, passenger volumes will continue to increase. Several measures that were required in Stages 0 and 1 may be lifted. Health measures for travel required at airports will need to match those from other local modes of transport and infrastructure.
- **Stage 3:** This stage may occur when the virus outbreak has been sufficiently contained in a critical mass of major destinations worldwide as determined by health authorities. The reduction of national health alert levels and associated loosening of travel restrictions will be key triggers. Risk mitigation measures will continue to be reduced, modified, or will be stopped in this stage. There may not be effective pharmaceutical interventions (e.g. therapies or vaccines) commonly available during Stage 3, but contact tracing and testing should be readily available. Until specific and effective pharmaceutical interventions are available, States may need to continue to loosen or reinstate public health and social measures throughout the pandemic.
- **Stage 4:** This stage begins when specific and effective pharmaceutical interventions are readily available in most countries. There may be a set of residual measures/mitigations that could be retained, although these should also undergo a periodic review process.

*Note.— There are no hard boundaries in these stages and the transition between them can be in either direction.*

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# Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis

## Appendix

### 1. PUBLIC HEALTH RISK MITIGATION MEASURES

#### 1.1 General

1.1.1 These public health risk mitigation measures are divided into two sections. The first section contains generally applicable risk mitigation measures that apply in all phases of air passenger and cargo transport. The second section describes modules, attached to this appendix, that are specific to various aspects of air transport.

1.1.2 In the implementation of these measures, care should be taken to follow all applicable laws, regulations, requirements, standards and guidance issued by relevant sub-national, national and international authorities. Nothing in these guidelines is intended to supersede or contradict such requirements.

#### 1.2 Generally applicable risk mitigation measures

- **Public education:** States and stakeholders must work together to distribute accurate information quickly. Information must be as clear, simple and consistent as possible across the entire passenger travel experience.
- **Physical distancing:** To the extent feasible, people should be able to maintain social distancing consistent with World Health Organization (WHO) or applicable State health guidelines. Where this distancing is not feasible (for example in aircraft cabins), adequate risk-based measures should be used.
- **Face covering and mask:** Face coverings should be worn, consistent with applicable public health guidelines. The type of face covering (non-medical or medical) should be selected based on the level of risk and the availability of masks while taking into consideration the potential risks and disadvantages of using masks. Medical face masks must be prioritized for use as personal protective equipment by healthcare workers and symptomatic persons suspected of being infected with COVID-19. In all instances, best practices should be followed about when and how to wear, remove, replace and dispose of face coverings and masks, as well as hand hygiene after removal.
- **Routine sanitation:** All areas with potential for human contact and transmission should be cleaned and disinfected as prescribed by public health authorities with frequency based on operational risk assessment.

- **Health screening:** States should ensure that health screening is conducted in accordance with the protocols of the relevant health authorities. Screening could include pre-flight and post-flight self-declarations, temperature measurement and visual observation conducted by health professionals. Such screenings could identify potentially high-risk persons that may require additional examination prior to working or flying. The availability of such information and insights can be leveraged to adopt a risk-based approach which will further contribute to reassure the travelling public. This screening may be conducted upon entry and/or exit.

If a person shows signs and symptoms suggestive of COVID-19 or indicates exposure to COVID-19, appropriate follow up would be necessary, including a focused health assessment performed by healthcare personnel either in a dedicated interview space at an airport, or in an offsite pre-identified health care facility.

- **Contact tracing:** Methods for the collection of passenger and employee contact information should be explored, including web applications, to support public health authorities in contact tracing. Updated contact information should be requested as part of the health self-declaration, and interaction between passengers and governments should be made directly through government portals. This should be in line with applicable data privacy protection rules.
- **Health declarations:** Where feasible and justified, health declaration forms for COVID-19 should be used for all passengers, in line with the recommendations of relevant health authorities. Self-declarations prior to airport arrival should also be encouraged. Electronic tools should be encouraged to avoid paper forms.
- **Testing:** At the time of publication, rapid tests cannot be a precondition for travel due to their unreliability or impracticability. It is therefore recommended that States refrain from requiring rapid tests for the time being. It should be noted that the rapid testing of all passengers prior to departure would not be operationally viable unless more real-time, rapid and reliable testing becomes available.

### 1.3 Risk mitigation measures applicable in specific modules

#### A. Airport

The airport module contains specific guidance addressing elements for airport terminal building, cleaning, disinfecting, hygiene, physical distancing, staff protection, access, check-in area, security screening, airside areas, gate installations, passenger transfer, disembarking, baggage claim and arrivals areas.

#### B. Aircraft

The aircraft module contains specific guidance addressing boarding processes, seat assignment processes, baggage, interaction on board, environmental control systems, food and beverage service, lavatory access, crew protection, management of sick passengers or crew members, and cleaning and disinfection of the flight deck, cabin and cargo compartment.

**C. Crew**

In order to promote safe and sustainable international air travel, a closely coordinated international approach to the treatment of air crews, consistent with recognized public health standards, will be essential to alleviate burdens on critical transportation workers. These currently include screening, quarantine requirements, and immigration restrictions that apply to other travellers. The crew module contains specific guidance addressing the contact of a crew member with a suspected or positive COVID-19 case, reporting for duty, dedicated end-to-end crew layover best practices, crew members experiencing COVID-19 symptoms during layover and positioning of crew.

**D. Cargo**

Cargo flight crews should apply the same health and safety considerations as passenger flight crews and are collectively included in the crew section of this document. Whilst air cargo consignments do not come into contact with the travelling public, the cargo acceptance and handover process does include interaction with non-airport employees. The cargo module addresses aviation public health including physical distancing, personal sanitation, protective barriers for points of transfer to the ramp and the loading and unloading, and other mitigation procedures.

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## **2. MODULES**

<i>Module</i>	<b>Airports</b>
<i>Target audience</i>	Airport operators, authorities, governments, airport staff.
<i>Element</i>	Terminal building
<i>Brief description (Objective)</i>	Guidance for the operation of terminal buildings needs to consider all aspects of operations, including who has access to the building, the upkeep of cleanliness and disinfection procedures in place within the terminal building, as well as health measures, the provision of first-aid/medical attention guidance, and the protocols for passengers and staff.
<i>Considerations</i>	<p><b>Cleaning and disinfection</b></p> <ul style="list-style-type: none"> <li>• A written plan for enhanced cleaning and disinfection should be agreed upon by the airport health authority, airport operators and service providers, according to the standard operating procedures outlined in the WHO <i>Guide to Hygiene and Sanitation in Aviation</i>. The plan needs to be updated in terms of process, schedule and products, when new information becomes available.</li> <li>• Cleaning and disinfection of terminal infrastructure and all equipment should be done on a regular basis, in accordance with the aforementioned plan, and its frequency should be increased as needed based on traffic.</li> <li>• Increase the availability of cleaning and disinfecting products approved by the applicable authorities.</li> <li>• All cleaning and disinfection staff should be made aware of the cleaning and disinfection plan. It is necessary to ensure staff are utilizing products effectively, including the concentration, method and contact time of disinfectants, and addressing areas that are frequently touched and most likely to be contaminated, such as: <ul style="list-style-type: none"> <li>○ Airport information desks, passengers with reduced mobility (PRM) desks, check-in areas, immigration/customs areas, security screening areas, boarding areas, etc.</li> <li>○ Escalators and lifts, handrails.</li> <li>○ Washrooms, toilets and baby changing areas.</li> <li>○ Luggage trolleys and collection points: cleaned with dispensable wet wipes or disinfectants, ensuring that disposal bins are made available.</li> <li>○ Seats prior to security screening and in boarding/check-in areas.</li> <li>○ Parking shuttle buses and airside buses.</li> </ul> </li> <li>• Increase the use of air conditioning and effective filtration systems to keep air clean, reduce re-circulation and increase the fresh-air ratio. Horizontal airflows should be limited.</li> </ul>

**Physical distancing**

- Physical distancing is an effective measure to limit transmission of COVID-19 and should be part of a comprehensive package of measures to limit the spread of COVID-19. Physical distancing measures in airports should be:
  - At least consistent with what is applied for other transport modes, particularly in urban public transport used for access to and from airports.
  - Applied to the greatest extent possible throughout the airport.
  - Re-evaluated as epidemiological conditions permit.
- Physical distancing should target reaching at least one (1) metre between all individuals.
- Passengers should wear masks or other face coverings in accordance with applicable health guidelines and where their use does not create shortages for healthcare workers.
- Mutual recognition of equivalent physical distancing measures that mitigate the health risks at the point of departure and of arrival is encouraged.

**Staff protection:**

- The level of adequate protection for staff members should be evaluated on a case-by-case basis. Such protection may include personal protective equipment (PPE), health screening programmes for staff, scheduling (keeping groups of staff in steady teams and shifts), easy alcohol-based hand sanitizer access, specific staff process prior to and after completing a shift, and physical distancing plans for workstations.
- Employees should be equipped with PPE based on the risk of exposure (e.g. type of activity) and the transmission dynamics (e.g. droplet spread). PPE could include gloves, medical masks, goggles or face shields, and gowns or aprons.
- For staff and teams working shifts, handovers should be conducted in a contact-free manner, i.e. via telephone, videoconference, electronic logs, or at least through physical distancing.
- Maintenance and repair work in public areas should be prioritized and their schedule adjusted or possibly postponed if it is non-essential.
- Staff training should maximize the use of online training and virtual classrooms.
- The use of physical separators between selected staff and passengers is recommended in areas of repeated exchanges and transactions.

**Airport terminal access**

- According to each airport specificities and the national legislation in place, airport terminal access may be restricted to workers, travellers and accompanying persons such as passengers with disabilities, reduced mobility or unaccompanied minors in an initial phase, as long as it does not create crowds and queues, which would enhance risks of transmission as well as create a potential security vulnerability.
- Where health screening is required by applicable regulations, non-contact thermometers should be used in a designated area, under conditions which minimize the impact on operations.

*Means for uniform implementation*

- Collaborate with relevant authorities to ensure viewpoints are aligned.
- Collaborate with stakeholders in the community to ensure the timely and accurate dissemination of information to the travelling public.
- Ensure alignment of measures with other local modes of transport and other infrastructures.
- Use the Airport COVID-19 Cleaning / Disinfection Control Sheet (PHC Form 3) or a similar one where appropriate.

<p><i>Element</i></p> <p style="text-align: center;">General check-in area</p>
<p><i>Brief description (Objective)</i></p> <p>The general check-in area of an airport is usually an area that sees high passenger traffic. In order to limit queues and crowds, passengers should complete as much of the check-in process as possible before arriving at the airport (i.e. passengers should be ready to fly). Self-service options should be made available and utilized as much as possible to limit contact at passenger touchpoints.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Implement measures that reduce congestion within these areas through advanced-planning and monitoring of passenger flows.</li> <li>• Airports should provide signage, floor markings and announcements via public address (PA) systems to encourage physical distancing. In addition, support communication of key prevention messages from health authorities through audio messages and signs at key touchpoints of the passenger journey should be considered.</li> <li>• Various self-service tools, such as boarding pass and baggage tag kiosks and baggage drops are of specific concern due to the high levels of physical contact that increase the probability of contamination. Usage of these devices should nonetheless be encouraged to reduce face-to-face interactions, but with careful attention to the management of passenger flow and keeping such devices adequately and constantly disinfected.</li> <li>• Whenever possible, passengers should be encouraged to complete check-in processes prior to arriving at the airport. Online check-in, mobile boarding pass, off-airport baggage tagging, and other initiatives will contribute to the reduction in the amount of contact with airport staff and infrastructure. It is therefore recommended that governments remove any regulatory obstacles to enabling such types of off-airport processes.</li> <li>• At the traditional check-in counters, the use of retractable stanchions and floor signage in the queuing area to encourage social distancing and the installation of transparent barriers in front of staff at counters should be considered.</li> <li>• Self-sanitizing technology may also be considered for integration within kiosks with touch screens, to allow for the disinfection of the screens between each use.</li> <li>• Whenever possible, airport and other stakeholders should use contactless processes and technology, including contactless biometrics such as facial or iris recognition. Such digital identification processes can be applied to self-service bag drops, various queue accesses, boarding gates and retail and duty-free outlets. This will eliminate or greatly reduce the need for contact with travel documents between staff and passengers. It may also accelerate various processes, resulting in enhanced health protection, reduced queuing and other process efficiencies.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• Collaborate with relevant authorities, airlines and other aviation stakeholders for cost-effective solutions that protect the public.</li> </ul>

- Simplified formalities by enabling contactless processes.
- Greater use of standardized digital identity management solutions.
- Use the Airport COVID-19 Cleaning / Disinfection Control Sheet (PHC Form 3) or a similar one where appropriate.

<i>Element</i> <p style="text-align: center;">Security Screening</p>
<p><i>Brief description (Objective)</i></p> <p>During the initial stages of the pandemic response, we can expect the need for physical distancing measures to be maintained at security screening checkpoints, including during the screening process. Measures to control access to the security screening checkpoint may need to be considered, as well as possible modifications to standard screening, in order to comply with new COVID-19 sanitary guidelines.</p> <p>Security screening staff should normally be exempt from carrying out health and safety related screening to ensure they remain focused on security screening and related processes.</p>
<p><i>Considerations</i></p> <p><b>Checkpoint access procedures</b></p> <ul style="list-style-type: none"> <li>• Appropriate procedures should be implemented in coordination with relevant government departments in order to respond to any passengers showing signs of illness.</li> <li>• Hand sanitizers and disinfection products should be provided prior to passengers and staff screening access points where possible.</li> <li>• Screeners and passengers should maintain physical distancing to the extent possible or wear the appropriate PPE to mitigate the risk of exposure.</li> <li>• Rearranging of security checkpoint accesses and layouts should be considered with the objective of reducing crowds and queues, to the extent possible, while maintaining desirable throughput. This should include both divestment areas and those areas where passengers retrieve their screened cabin baggage.</li> <li>• Markings should be established on the ground within the queueing area to indicate the proper distancing recommended by the appropriate authorities. Physical distancing should remain in place until informed by relevant health authorities that it is safe to relax them.</li> <li>• Procedures involving passengers presenting boarding passes and other travel documents to security personnel should be done, to the extent possible, while avoiding physical contact and in a way that minimizes face-to-face interaction. Should there be a need to identify a person wearing a mask against a government-issued photo identification, the mask could be removed if physical distancing measures are met. Appropriate signage should be deployed that clearly informs about subsequent steps of the process.</li> </ul> <p>Possible solutions include:</p> <ul style="list-style-type: none"> <li>○ Directing passengers to use automatic boarding pass scanners at access points while maintaining appropriate physical distance.</li> <li>○ Using mobile boarding pass scanners operated by the security staff.</li> <li>○ Conducting a visual inspection of the boarding pass and relevant identification documentation, as needed by standard operating procedures.</li> </ul> <ul style="list-style-type: none"> <li>• Automated gates and mobile scanners' reader surfaces should be disinfected with the same frequency as for any other high-touch surface.</li> </ul>

- Passenger preparation officers should be deployed to ensure passengers are prepared for the divestment needs. Screeners should reinforce processes with passengers accessing divesting areas, such that they properly divest and are less likely to cause a false alarm (to minimize the use of manual searches).
- Routine enhanced cleaning and disinfecting should be conducted, if needed, of frequently touched/exposed surfaces and security screening equipment, including trays at the security checkpoint and baggage areas.

### **Passenger Screening**

- Alcohol-based hand sanitizer should be distributed to staff for the cleaning and disinfection of their hands.
- Screeners should wear gloves and change them after each manual search.
- Employees should be advised to wash their hands after removing gloves.
- Appropriate signage and information to passengers should be clearly displayed regarding newly implemented health requirements, as well as modified screening processes. Signage should highlight the need for passenger cooperation throughout the screening process.
- Whenever screening checkpoints are processing a high number of passengers, staff and crew screening should be performed in dedicated checkpoints and separately from passengers (as an additional preventive health measure), where possible.
- Where possible, alarm resolution should be conducted in a dedicated area separated from the flow of passengers. This methodology mitigates the risk of queue build up and maintains passenger throughput but may need the positioning of additional personnel.
- For WTMD alarm resolution, prioritize the use of hand-held metal detectors to identify the cause of alarm, followed by a targeted manual search where the alarm is.
- The use of explosive trace detection (ETD) equipment or explosives detection dogs (EDDs) should not be limited to alarm resolution. Random use of such explosive detection should be encouraged and leveraged where possible.
- In order to resolve any alarms or concerns identified by screeners, the use of ETD or EDD should be considered in lieu of manual searches, where appropriate, and subject to the nature of the screener's concerns.
- If the standard procedure allows for the reuse of ETD swabs, consideration should be given to discontinuing this practice to limit the possibility of spreading COVID-19.

*Note.- Research is being conducted to determine whether or not the high temperature used by ETD may be sufficient to kill a virus, enabling swabs to be used multiple times. The appropriate authority for Security should confirm with the relevant health authority.*

- If there is a need to conduct a manual search, screeners should adapt their methodology, if possible, to avoid being face-to-face with passengers or other persons being screened.
- Staff needed to interact with passengers in close proximity should use a face mask.

- Larger quantities of health-related liquids, aerosols and gels (LAGs) than prescribed by applicable security regulations, such as alcohol-based hand disinfectants, could be accepted if permitted by the appropriate authorities for aviation security and safety.

*Means for uniform implementation*

- Work with the regulator to consider alternatives to manual searches when conducting random searches. Such alternatives should only be implemented with the approval of the appropriate authority and based on a risk assessment.
- Work with relevant health authorities to ensure cleanliness and disinfection protocols are developed and implemented for items with a high likelihood of cross contamination (e.g., trays and divestment area).
- Use the *Airport COVID-19 Cleaning / Disinfection Control Sheet* (PHC Form 3) or a similar one where appropriate.

*Element*

## Terminal Airside Area

*Brief description (Objective)*

The post-security terminal airside area is an area of high passenger traffic with few physical barriers and usually wide-open space. Consideration needs to be given to the temporary need for physical distancing, while also providing passengers with access to the retail, duty-free concessions and food and beverage offerings.

Gate areas, VIP lounges and other services in this area also see a high passenger volume. Various flow monitoring tools, physical installations, floor markings and adapted wayfinding need to be evaluated and deployed. Enhanced cleaning and hygiene measures may need to be scheduled and deployed to contribute to the limiting of the virus spread.

*Considerations*

- Self-service options, where passengers have limited contact with retail, food and beverage staff, should be encouraged.
- An orderly boarding process will be necessary to reduce physical contact between passengers, especially once load-factors start increasing. Close cooperation between the airline, airport and government is vital. Airlines will need to revise their current boarding processes. Airports may need to assist in redesigning gate areas and governments may need to adapt applicable rules and regulations. The increased use of automation, such as self-scanning and biometrics should be facilitated.
- Especially during the early stages of the restart phase, carry-on baggage that would need to use the overhead bins should be limited to facilitate a smooth boarding process.
- Where possible, implementation of self-boarding technologies at the gate should be considered, including units using automatic doors, integrated boarding pass readers, LCD displays for passenger instructions and a device for printing seat assignment changes.
- Increase use of all other opportunities of self-scanning of documents when identification is needed.
- As a temporary measure, sitting areas (e.g., lounges, gates, restaurants) can open at limited capacity to accommodate the short-term need for physical distancing. As the recovery phase progresses and health requirements evolve, a return to regular capacity can be contemplated.
- Temporary closing or enhanced monitoring of certain service areas should be considered, based on the stage of mitigation measures, such as:
  - Self-service buffet food;
  - Café seating or multi-purpose seating;
  - Smoking areas; and
  - Children’s play areas.
- Multiple alcohol-based hand sanitizer stations should be made available throughout the airport with adequate signage for passengers.

- Installation of touch-free equipment in toilet facilities such as the following should be considered:
  - Automated door systems;
  - Automatic toilet flushing system;
  - Taps and soap/hand sanitizer dispensers; and
  - Automated hand towel dispensers.

*Means for uniform implementation*

- Work with retail, food and beverage concessions to ensure the use of contactless technology payment options and self-serve options.
- Involve airline stakeholders in measures needed in airport lounges.
- Collaborate with relevant authorities, airlines and other aviation stakeholders for cost-effective solutions that protect the public.
- Use the *Airport COVID-19 Cleaning / Disinfection Control Sheet* (PHC Form 3) or a similar one where appropriate.

<i>Element</i> Aircraft Terminal Gate Equipment
<p><i>Brief description (Objective)</i></p> <p>Many airports will have decommissioned certain assets in response to a lack of passenger traffic. Appropriate safety checks need to be conducted prior to the recovery of the airline traffic. Airports and airlines need to work together to ensure that accurate flight schedules are provided in order to meet this demand.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Electromechanical equipment such as boarding bridges, escalators and elevators must be inspected and periodically tested or started up. Inspections of such decommissioned equipment are essential before returning them to service for passenger use, based on manufacturers’ recommendations and national building codes.</li> <li>• Maintenance protocols need to be defined and deployed.</li> <li>• Where conditioned air is needed, power should be maintained in all outdoor-based equipment such as jetways and pre-conditioned air units.</li> <li>• Critical service providers and government authorities must be advised in advance on ramp-up schedules and plans by the airport operator to return temporarily closed facilities into service.</li> </ul> <p><b>Gate aircraft equipment and air filtering</b></p> <ul style="list-style-type: none"> <li>• Where external pre-conditioned air (PCA) and fixed electrical ground power (400 Hertz) are available at the stand, an aircraft can switch off its auxiliary power unit (APU) after arrival. A PCA system takes in ambient air through an intake filter and provides conditioned air to the cabin.</li> <li>• External air sources are not processed through the aircraft’s high-efficiency particulate air (HEPA) filter. The aircraft APU should be permitted to be used at the gate to enable the aircraft’s air conditioning system to be operated if equivalent filtration from PCA is not available.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• Ensure that airport capacity recommissioning is in step with airline schedules and phased in an appropriate manner.</li> </ul>

*Element*

## Disembarking and Arrivals

*Brief description (Objective)*

Border control and customs processes may need to be temporarily revised to increase physical distancing.

Where equipment already exists, the use of automated border control (ABC) equipment, digital passenger identification (biometrics) as well as technology (thermal screening) could serve as an additional health screening measure and could speed up the immigration process, with the objective of reducing queuing and minimizing contact between border officials and passengers.

Furthermore, during initial stages, some governments are exploring the idea of a health declaration to be completed by passengers before departure or on arrival as an initial assessment measure, which could be used to identify passengers for secondary assessment.

*Considerations*

- Coordination with various border regulatory authorities (e.g., immigration, health) should be established for measures facilitating the clearance of entry/arrival, such as enabling contactless processes (e.g., relating to the reading of passport chips, facial recognition).
- Where declarations are needed on arrival, governments should consider electronic options (e.g., mobile applications and QR codes) to minimize human-to-human contact. Information could be sent in advance via government portals. For customs formalities, where possible, green/red lanes for self-declarations are recommended.
- The identity verification process should be automated with the use of biometric technology. Use of contactless technology, automated border control or eGates should be encouraged in order to enhance transaction time and limit interaction between passengers, officers and staff.
- If needed by relevant regulations, smart thermal cameras can be installed to scan the temperature of multiple passengers rapidly and unobtrusively.
- During initial stages of recovery and if needed, secondary health assessments could be set to maintain the main general flow of passengers. Thermal screening can be conducted prior to the customs hall, but individual passenger health assessments should be avoided so as not to have a drastic impact on throughput resulting in more queues.
- For flights arriving from higher-risk areas where there are cluster or community transmission, a particular section of the arrivals terminal could be utilized to increase physical distancing, and/or smart thermal cameras could be placed at appropriate locations to screen arriving passengers, in consultation with the public health authorities.

**Health Declaration**

- Some governments are implementing a health declaration solution that can be set-up on a web portal. For those States that already have a platform to collect visa and electronic travel authorization information they could be customized to accommodate the additional information needed.

**Transfer**

- Develop “one-stop” health screening arrangements using existing one-stop security arrangement as a model. In this model, passengers and property are not rescreened at transfer locations based on mutual recognition of security measures between the States in the travel itinerary. A similar arrangement for health screening procedures may prevent new queuing points at passenger transfer locations.
- Where transfer security screening is needed, it should follow appropriate sanitary requirements as previously described in the departure process.

*Means for uniform implementation*

- Collaborate with relevant authorities for cost-effective solutions that protect the public.
- Collaborate with relevant authorities and airlines to develop efficient and cost-effective solutions that protect the travelling public.
- Work with governments and authorities if a health declaration is to be implemented.
- Greater use of standardized digital identity management solutions.
- Use the *Airport COVID-19 Cleaning / Disinfection Control Sheet* (PHC Form 3) or a similar one where appropriate.

<i>Element</i> <p style="text-align: center;">Baggage Claim Area</p>
<p><i>Brief description (Objective)</i></p> <p>The baggage claim area of an airport is susceptible to high passenger footfall and physical contact with luggage carts, baggage, washrooms and other facilities. Disinfection measures and increased frequency of cleaning should be implemented.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• All efforts need to be made to provide a speedy baggage claim process and ensure that passengers are not made to wait for excessive amounts of time in the baggage claim area.</li> <li>• Maximize use of available arrival baggage carousels to limit the gathering of passengers, and, where possible, use of dedicated baggage carousels for flights from high risk areas.</li> <li>• Governments should ensure that the customs clearance process is as speedy as possible and that appropriate measures are taken in case of physical baggage inspections.</li> <li>• Cleaning schedules should be aligned based on flight schedules to ensure a more frequent, in-depth disinfection of luggage carts, washrooms, elevator buttons, rails, etc.</li> <li>• Self-service kiosks or online options for passengers needing to report lost or damaged luggage should be made available.</li> <li>• The use of retractable stanchions and floor markings should be considered as a temporary measure to encourage physical distancing at the baggage carousel.</li> <li>• Airline agents at lost luggage counters should be provided with a protective transparent separator when possible.</li> <li>• The use of baggage delivery services, where the passenger's baggage can be delivered directly to their hotel or home, should be encouraged.</li> <li>• Baggage tracking information should be shared with passengers so that they are able to make a baggage claim, in case of baggage mishandling, without waiting in the reclaim area.</li> <li>• Protocols for cleaning and disinfection of the area should be established.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• Collaborate with relevant authorities and airlines for cost-effective solutions that protect the travelling public.</li> <li>• Use the <i>Airport COVID-19 Cleaning / Disinfection Control Sheet</i> (PHC Form 3) or a similar one where appropriate.</li> </ul>

<p><i>Element</i></p> <p style="text-align: center;">Exit the Landside Area</p>
<p><i>Brief description (Objective)</i></p> <p>Protocols and precautions need to be in place for arriving passengers who are exiting the landside area. Consideration should be given to the greeter's area as well as the terminal's exit area. During initial restart phases, measures could include establishing a perimeter around the greeter's area or limiting access to the terminal building.</p>
<p><i>Considerations</i></p> <p><b>Airport terminal access</b></p> <ul style="list-style-type: none"> <li>• According to each airport's specificities and the national legislation in place, airport terminal access may be restricted to workers, travellers and persons accompanying passengers with disabilities, passengers with reduced mobility or unaccompanied minors in an initial phase, as long as it does not create crowds and queues which would then increase risks of transmission as well as create a potential security vulnerability.</li> <li>• Multiple hand washing stations or hand sanitizers should be provided prior to the exit of the terminal building.</li> <li>• Cleaning should be increased based on flight schedules to ensure a more frequent, in-depth disinfection of landside public areas, including seating areas, food and beverage and retail, handrails, washrooms, automated moving systems and buses.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• Collaborate with stakeholders in the community to ensure the timely, accurate dissemination of information to the travelling public.</li> <li>• Use the <i>Airport COVID-19 Cleaning / Disinfection Control Sheet</i> (PHC Form 3) or a similar one where appropriate.</li> </ul>

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<i>Module</i>	<b>Aircraft</b>
<i>Target audience</i>	
Operators covered under Annex 6 – <i>Operation of Aircraft, Part 1 – International Commercial Air Transport – Aeroplanes.</i>	

<i>Element</i>	Passenger and Crew – General
<i>Brief description (Objective)</i>	
Provide a safe, sanitary operating environment for passengers and crew.	
<i>Considerations</i>	
<ul style="list-style-type: none"> <li>• Adjust the boarding process. To the extent possible, and consistent with weight and balance considerations, the boarding and disembarking of passengers should be conducted in ways that reduce the likelihood of passengers passing in close proximity to each other.</li> <li>• Seat assignment processes. When needed, seats should be assigned for adequate physical distancing between passengers. Airlines should allow for separated seating arrangements when occupancy allows it. Passengers should also be encouraged to stay in the assigned seat as much as possible.</li> <li>• Limit interaction on board. Passengers should be encouraged to travel as lightly as possible with all luggage checked-in except small hand luggage that fit under the seat. Newspapers and magazines should be removed. The size and quantity of duty-free sales may also be temporarily limited.</li> <li>• Limit or suspend food and beverage service. Food and beverage service should be limited or suspended on short-haul flights or should be considered to be dispensed in sealed, pre-packaged containers. The use of non-essential in-flight supplies, such as blankets and pillows, should be reduced to minimize the risk of cross infection.</li> <li>• Restrict lavatory access. When possible, one lavatory should be designated for crew use only, provided sufficient lavatories remain available for passenger use without fostering congregation by passengers waiting to use a lavatory. Also, to the extent practicable depending on the aircraft, passengers should use a designated lavatory based on seat assignment to limit passenger movement in flight, which reduces exposure to other passengers.</li> <li>• Crew protection measures. Sharing of safety equipment used for safety demonstrations should be prohibited. Crew members should be instructed to provide service only to specific sections of the cabin. Additional means of protection, for instance plastic curtains or Plexiglas panels during the boarding process (to be removed once boarding is completed), should be explored.</li> </ul>	

*Note.- The following elements concerning disinfection contain the latest joint aircraft original equipment manufacturer (OEM) recommendations currently available. Users of this guidance should note that:*

- *These recommendations are based on evolving circumstances and technology.*
- *While every attempt was made to provide common recommendations for disinfectants usage on aeroplanes, there are differences between the products manufactured by each aircraft OEM. It is strongly recommended that the operator is familiar with OEM guidance and consults the OEM for any questions specific to that airframe.*
- *The intent of these guidelines is to provide operators with recommendations that are aligned with the aircraft product. It is the responsibility of the operator to ensure that the disinfectants are used per the manufacturer’s instructions, that proper protection is employed by those using the disinfectant and that their use is in alignment with health organizations’ recommendations for efficacy and in accordance with the label instructions of the disinfectant.*

<i>Element</i>	Disinfection – Flight Deck
<i>Brief description (Objective)</i>	Provide a safe, sanitary operating environment for crew and ground staff.
<i>Considerations</i>	<ul style="list-style-type: none"> <li>• Frequency of cleaning of the flight deck should account for the separation of the flight deck from the passenger compartment as well as for the frequency of crew transitions.</li> <li>• The flight deck should be cleaned and disinfected at an appropriate frequency to accommodate safe operations for the crew.</li> <li>• Airframe manufacturers recommend the use of a 70% aqueous solution of Isopropyl Alcohol (IPA) as a disinfectant for the flight deck touch surfaces. Appropriate health organizations should be referred to for instruction on application to be effective against viruses. The OEM’s instructions should be referred to ensure that the proper application, ventilation and personal protection equipment is used. For more detailed recommendations or additional disinfecting chemicals, reach out to the specific Airframe Manufacturer.</li> <li>• Surfaces should be cleaned of dirt and debris before disinfecting to maximize effectiveness.</li> <li>• Application to surfaces should be with pre-moistened wipes or single use wetted cloth and use limited bottle sizes on board to minimize the risk of spilling the IPA solution. Do not spray IPA in the flight deck. Do not allow the liquid to pool or drip into the equipment.</li> <li>• IPA is flammable, so precautions should be taken around potential sources of ignition.</li> <li>• Because the frequency of disinfection has significantly increased due to COVID-19, and there is no data on the long-term effects associated with this frequent application, the operator should</li> </ul>

periodically inspect the equipment to ensure that there are no long-term effects or damages over time. If damage is observed, contact the OEM for guidance on alternate disinfectants. Specific care should be taken for application on leather and other porous surfaces.

- Given the increased likelihood that switch positions may be inadvertently changed during the cleaning or disinfection process, operators and flight crew should reinforce procedures to verify that all flight deck switches and controls are in the correct position prior to operation of the airplane.
- Some equipment on the flight deck may have additional disinfectant needs based on usage (e.g., oxygen masks) and procedures should be put in place accordingly.

*Means for uniform implementation*

- OEM communication through ICCAIA and OEM communication with operators.
- Use the *Aircraft COVID-19 Disinfection Control Sheet* (PHC Form 2) or a similar one when appropriate.

<p><i>Element</i></p> <p style="text-align: center;">Disinfection – Passenger Cabin</p>
<p><i>Brief description (Objective)</i></p> <p>Provide a safe, sanitary operating environment for passengers, crew and ground staff.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• The cabin should be cleaned and disinfected at an appropriate frequency to accommodate safe operations for the passengers and crew. The frequency should account for the operation of the aircraft and the potential exposure of the cabin to an infected person.</li> <li>• Airframe manufacturers recommend the use of a 70% aqueous solution of Isopropyl Alcohol (IPA) as a disinfectant for the touch surfaces. Appropriate health organizations should be referred to for instruction on application to be effective against viruses. The OEM’s instructions should be referred to ensure that the proper application, ventilation and personal protection equipment is used. For more detailed recommendations or additional disinfecting chemicals, reach out to the specific airframe manufacturer.</li> <li>• Surfaces should be cleaned of dirt and debris before disinfecting to maximize effectiveness.</li> <li>• Application to surfaces should be with pre-moistened wipes or single use wetted cloth and use limited bottle sizes on board to minimize the risk of spilling the IPA solution. Do not spray IPA in the cabin. Do not allow the liquid to pool or drip into equipment (e.g., in-flight entertainment electronic boxes).</li> <li>• IPA is flammable, so precautions should be taken around potential sources of ignition.</li> <li>• Because the frequency of disinfection has significantly increased due to COVID-19, and there is no data on the long-term effects associated with this frequent application, the operator should periodically inspect the equipment to ensure that there are no long term effects, colour shifts or damages over time. If damage is observed, contact the OEM for guidance on alternate disinfectants. Specific care should be taken for application on leather and other porous surfaces. The operator should validate disinfecting agents for buyer furnished equipment (e.g., Seats and IFE) with the manufacturer.</li> <li>• Airlines may wish to review their operating procedures to minimize the number of personnel who need to contact high-touch surfaces such as access panels, door handles, switches, etc. For more detailed recommendations or additional disinfecting chemicals, reach out to the specific airframe manufacturer.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• OEM communication through ICCAIA and OEM communication with airlines.</li> <li>• Use the <i>Aircraft COVID-19 Disinfection Control Sheet</i> (PHC Form 2) or a similar one when appropriate.</li> </ul>

<p><i>Element</i></p> <p style="text-align: center;">Disinfection – Cargo compartment</p>
<p><i>Brief description (Objective)</i></p> <p>Provide a safe, sanitary operating environment for crew and ground staff.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• The cargo compartment touch surfaces should be cleaned and disinfected at an appropriate frequency to accommodate safe operations for the ground staff.</li> <li>• Airframe manufacturers recommend the use of a 70% aqueous solution of Isopropyl Alcohol (IPA) as a disinfectant for the touch surfaces. Refer to appropriate health organizations for instruction on application to be effective against viruses. Refer to the OEM’s instructions to ensure that the proper application, ventilation and personal protection equipment is used. For more detailed recommendations or additional disinfecting chemicals, reach out to the specific airframe manufacturer.</li> <li>• Surfaces should be cleaned of dirt and debris before disinfecting to maximize effectiveness.</li> <li>• Application to surfaces should be with pre-moistened wipes or single use wetted cloth and use limited bottle sizes on board to minimize the risk of spilling the IPA solution. Do not spray IPA in the Cargo Compartment. Do not allow the liquid to contact critical equipment (e.g., smoke detector, electronic door operation equipment and fire extinguishing discharge nozzle).</li> <li>• IPA is flammable, so precautions should be taken around potential sources of ignition. Pay particular attention to hidden ignition sources as many aircraft have electronic boxes mounted in the cargo compartment.</li> <li>• Because the frequency of disinfection has significantly increased due to COVID-19, and there is no data on the long-term effects associated with this frequent application, the operator should periodically inspect the equipment to ensure that there are no long-term effects or damages over time. If damage is observed, contact the OEM for guidance on alternate disinfectants.</li> <li>• Airlines may wish to review their operating procedures to minimize the number of personnel who need to contact high-touch surfaces such as access panels, door handles, switches, etc.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• OEM communication through ICCAIA and OEM communication with airlines.</li> <li>• Use the <i>Aircraft COVID-19 Disinfection Control Sheet</i> (PHC Form 2) or a similar one when appropriate.</li> </ul>

<p><i>Element</i></p> <p style="text-align: center;">Disinfection – Maintenance</p>
<p><i>Brief description (Objective)</i></p> <p>Provide a safe, sanitary operating environment for passengers, crew and ground staff.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Airlines should be mindful of regular maintenance to both air systems and water systems to ensure they continue to protect the passenger and crew from viruses. Airlines should refer to the Airframe OEM for specific maintenance actions and intervals.</li> <li>• Airlines should include access panels and other maintenance areas in their disinfection procedures to ensure a safe environment for the maintenance crews.</li> <li>• Airlines may wish to review their operating procedures to minimize the number of personnel who need to be in contact with high-touch surfaces such as access panels, door handles, switches, etc.</li> <li>• Airlines should establish maintenance procedures to be applied after disinfection procedures in order to check the Flight Deck, Passenger Cabin and Cargo Compartment for the correct positioning of control handle, circuit breakers and control panels' switches and knobs. Access panels and doors' closure also should be checked.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• OEM communication through ICCAIA and OEM communication with airlines.</li> <li>• Use the <i>Aircraft COVID-19 Disinfection Control Sheet</i> (PHC Form 2) or a similar one when appropriate.</li> </ul>

*Element*

## Air System Operations

*Brief description (Objective)*

The aircraft manufacturers recommend maximizing total cabin airflow and care should be taken to avoid blocking air vents (particularly along the floor). These are general recommendations for cabin air considerations and there may be exceptions for specific aircraft models. It is strongly recommended that operators consult with the aircraft OEM for questions specific to an aircraft type.

*Considerations***Ground Operations (before chocks-off and after chocks-in)**

- Operations without the air conditioning packs or external pre-conditioned air (PCA) source should be avoided. External air sources are not processed through a high-efficiency particulate air (HEPA) filter. Use of the aircraft APU should be permitted at the gate to enable the aircraft's air conditioning system to be operated, if equivalent filtration from PCA is not available.
- If the aircraft has an air recirculation system, but does not have HEPA filters installed, reference shall be made to OEM published documents or the OEM should be contacted to determine the recirculation system setting.
- It is recommended that fresh air and recirculation systems be operated to exchange the volume of cabin air before boarding considering the following:
  - For aircraft with air conditioning, run the air conditioning packs (with bleed air provided by APU or engines) or supply air via external PCA source at least 10 minutes prior to the boarding process, throughout boarding and during disembarkation.
  - For aircraft with HEPA filters, run the recirculation system to maximize flow through the filters.
  - For aircraft without an air conditioning system, keep aircraft doors open during turnaround time to facilitate cabin air exchange (passengers' door, service door and cargo door).

**Flight Operations**

- Operate environmental control systems with all Packs in AUTO and recirculation fans on.
  - Valid only if HEPA recirculation air filters are confirmed to be installed.
- If non-HEPA filters are installed, contact the aircraft OEM for recommendations on recirculation settings.
- If the aircraft in-flight operating procedure calls for packs to be off for take-off, the packs should be switched back on as soon as thrust performance allows.

**Minimum Equipment List (MEL) Dispatch:**

- Fully operational air conditioning packs and recirculation fans provide the best overall cabin ventilation performance. It is recommended to minimize dispatch with packs inoperative. It is recommended to minimize dispatch with recirculation fans inoperative for aircraft equipped with HEPA filter.
- Some aircraft have better airflow performance with all outflow valves operational. The OEM should be contacted about ventilation performance of the aircraft with outflow valves inoperative and the limitations associated with the dispatch in this situation.

**High Flow (max Bleed) Switch:**

- If the aircraft has an option for high flow operation, contact the OEM for setting recommendations.

For example:

Boeing recommends that airlines select High Flow Mode for 747-8, MD-80 and MD-90 aircraft, as this will maximize total ventilation rate in the cabin.

*Note.- This will increase fuel burn. However, for the 747-400 and 737, High Flow Mode should NOT be selected as this does not result in an increase in total ventilation rate. For all models, recirculation fans should remain on (when HEPA filters are installed).*

**Sick Passenger Positioning:**

- Separate the ill person from the other passengers by minimum of 1 metre (usually about two seats left empty in all directions, depending on the cabin design) from the seat occupied by the suspected case. Where possible this should be done by moving other passengers away.

**Filter Maintenance:**

- Follow normal maintenance procedures as specified by the OEM. Take note of special protection and handling of filters when changing them.
- Contact OEM or refer to OEM published document to check if an additional sanitization procedure and/or personnel health protection is needed to avoid microbiological contamination in the filter replacement area.

*Means for uniform implementation*

- OEM communication through International Coordinating Council of Aerospace Industries Associations (ICCAIA) and OEM communication with airlines.
- Use the *Aircraft COVID-19 Disinfection Control Sheet* (PHC Form 2) or a similar one when appropriate.

<i>Module</i>	<b>Crew</b>
<i>Target audience</i>	
All operations covered under Annex 6 – <i>Operation of Aircraft, Part 1 – International Commercial Air Transport - Aeroplanes</i> , Civil Aviation Authorities and public health agencies.	

<i>Element</i>	Crew Members
<i>Brief description (Objective)</i>	
Provide harmonised health protection and sanitation considerations applicable to crew members that can be implemented globally.	
<i>Considerations</i>	
<b>General</b>	
<ul style="list-style-type: none"> <li>Unless specified as flight crew or cabin crew, the term “crew” refers to all operational crew required on board for the air operator to support the flight. This element applies to all crew.</li> </ul>	
<b>Facilitation</b>	
<ul style="list-style-type: none"> <li>Crew members, maintenance and cargo/load specialized personnel who are involved in flights with a layover, should not be medically quarantined and detained for observations while on layover or after returning, unless they were exposed to a known symptomatic passenger or crew member on board or during the layover.</li> </ul> <p><i>Note.- Crew members operating passenger aircraft with cargo only, for example, should ensure that the correct notification has been sent to all agencies, to ensure that there is no confusion, or that crew members carried on board such as loadmasters, engineers, and cabin crew are correctly recognised and designated on the crew manifest.</i></p> <ul style="list-style-type: none"> <li>States should consider implementing measures that facilitate the continued operation of aircraft, such that: <ul style="list-style-type: none"> <li>Quarantine measures are not imposed on crew who need to layover, or rest, for the purposes of complying with flight time limitation (FTL) rest requirements.</li> <li>Crews are not subject to screening or restrictions applicable to other travellers.</li> <li>Health screening methods for crew members are as non-invasive as possible.</li> </ul> </li> </ul>	
<b>Health monitoring</b>	
<ul style="list-style-type: none"> <li>Crew members should monitor themselves for fever, cough, shortness of breath, or other symptoms of COVID-19. A <a href="#">WHO</a> common cut off point for fever is 38<sup>0</sup>C or higher.</li> <li>Crew members should take their temperature at least twice per day during duty periods and at any time they feel unwell.</li> </ul>	

- Crew members should stay at home or in their hotel room, notify their employers' occupational health programme, and not report for work if they develop a fever, shortness of breath, or other symptoms of COVID-19. They should not return to work until cleared to do so by the employers' occupational health programme and public health officials.

**Examples of crew exposure concerns, include the following:**

- Are within a mandated period of quarantine related to previous travel and/or duty.
- Test positive for Covid-19 regardless of symptoms evident.
- Know that they have been exposed to a person showing symptoms of Covid-19.
- Are experiencing any symptoms of Covid-19.
- Have recovered from Covid-19 symptoms but have not been assessed by the employers' occupational health program and public health authority.

**During Flight:**

- If a crew member develops symptoms during flight, the crew member should stop working as soon as practical, put on a surgical mask, notify the pilot in charge, and maintain the recommended physical distance from others, when possible to do so. Upon landing, individuals should follow up with airline medical and public health officials.

**Health protection**

- To protect the health of crew and others, including co-workers, crew members should:
  - Maintain recommended physical distance from others where possible, when working on the aircraft e.g., while seated on the jump seat(s) during take-off or landing, during ground transportation and while in public places.
  - Wash their hands regularly. If hands are not visibly dirty, the preferred method is using an alcohol-based hand rub for 20–30 seconds using the appropriate technique. When hands are visibly dirty, they should be washed with soap and water for 40–60 seconds using the appropriate technique.
  - Be reminded to, along with frequent hand washing/sanitization, avoid touching their face including while wearing gloves.
  - Wear a face covering while around other people, especially in situations where the recommended physical distance from others cannot be maintained.

*Note - A face covering should not replace the use of surgical masks or other PPE provided in the universal precaution kit (UPK) when interacting with a sick traveller on board an aircraft.*

- Avoid contact with people with a cough, fever, or shortness of breath or otherwise suspected of having COVID-19.

- Inspect and verify contents of the UPKs before each flight. Crew members should also follow existing air carrier policy and procedures regarding the use of PPE in the UPKs, if needed to provide care to a sick traveller on board.
- Follow the guidance and precautions of the State and relevant health authorities related to COVID-19.

**Additionally, airlines should:**

- Provide sufficient quantities of cleaning and disinfectant products (e.g. disinfectant wipes) that are effective against COVID-19 for use during flight.
- Consider providing face covering to crew members for routine use when on duty, if these do not interfere with PPE, while carrying out job tasks and when it is difficult to maintain the recommended physical distance from co-workers or passengers.

**Use of lavatories**

- Ideally, one or more lavatories should be reserved for crew use, in order to limit the potential for infection from passengers.

**Crew rest compartments**

- To minimize any possibility of cross infection, pillows, cushions, sheets, blankets or duvets, where provided, should not be used by multiple persons unless coverings are disinfected.
- Some airlines issue each crew member with their own provisions and the cabin crew members are responsible for ensuring that they are removed and bagged after use.
- Other airlines provide bulk loading for crew rest area bedding items. Where this is the case, crew members should install their own bedding items before their rest period and remove them hygienically afterwards.

**Training devices**

- The frequency of routine cleaning of flight simulators and training devices and other training aids, or equipment used during training (including oxygen masks) should be increased. Cleaning products used should be compatible with COVID-19 disinfectants.

*Means for uniform implementation*

- Ensure that these considerations are fully supported by:
  - The applicable non-governmental agencies
  - Public health, immigration and customs agencies
  - Civil aviation authorities.
- A high degree of collaboration between airport operators and their associated stakeholder community.
- Associated policy, procedures and training are developed to reinforce the importance of these considerations.
- Use the *Crew COVID-19 Status Card* (PHC Form 1) or a similar one when appropriate.

<i>Element</i> <p style="text-align: center;">Flight Crew</p>
<p><i>Brief description (Objective)</i></p> <p>Provide harmonised health protection and sanitation considerations applicable to Flight Crew which can be implemented globally.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Access to the flight deck should be limited to the greatest extent possible.</li> <li>• Flight crew members should only leave the flight deck for short physiological breaks and scheduled rest.</li> <li>• In the case of flight crew at controls displaying symptoms, the operator should consider whether removal from the flight deck is an appropriate mitigation within their risk assessment, and should establish procedures to identify whether a diversion is needed.</li> <li>• Carriers should ensure that when face masks are worn by flight crew or other crew members etc., oxygen masks can be still rapidly placed on the face, properly secured, sealed, and supplying oxygen on demand and that flight crew are provided with the correct guidance on how to do so.</li> <li>• When leaving flight deck, all items should be stowed, personal items removed, and flight deck is ready for cleaning and disinfection.</li> <li>• Prior to each cockpit crew change, the flight deck should have been fully sanitized.</li> <li>• In-person interactions with the cabin crew should be reduced to a minimum.</li> <li>• If possible, only one person should be designated to be able to enter cockpit when necessary.</li> <li>• Only one member of the flight crew or technical crew should be allowed to disembark the aircraft to complete the external inspection, refuelling, etc. In such case direct contact with the ground crew should be avoided.</li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• Ensure that these considerations are fully supported by: <ul style="list-style-type: none"> <li>○ The applicable non-governmental agencies.</li> <li>○ Public health, immigration and customs agencies.</li> <li>○ Civil Aviation Authorities.</li> </ul> </li> <li>• A high degree of collaboration between airport operators and their associated stakeholder community.</li> <li>• Associated policy, procedures and training are developed to reinforce the importance of these considerations.</li> <li>• Use the <i>Crew COVID-19 Status Card</i> (PHC Form 1) or a similar one when appropriate.</li> </ul>

<i>Element</i>	Cabin Crew
<i>Brief description (Objective)</i>	
Provide harmonised health protection and sanitation considerations applicable to Cabin Crew which can be implemented globally.	
<i>Considerations</i>	
<ul style="list-style-type: none"> <li>• Cabin crew who are in contact with a passenger suspected to be infected should not visit the flight deck unless operationally necessary.</li> </ul> <p><i>Note. - Sick passenger positioning guidance is contained in Air System Operations element of the Aircraft module.</i></p> <ul style="list-style-type: none"> <li>• While limiting the number and frequency of physical flight crew checks, an alternative method of checking on flight crew welfare such as regular interphone calls should be implemented.</li> <li>• The use of PPE should not impact the ability to carry out normal, abnormal and emergency safety procedures, such as the donning of oxygen masks, carrying out firefighting procedures etc.</li> <li>• Safety demonstration equipment should not be shared to the extent feasible to reduce the likelihood of virus transmission. If it must be shared, alternate means of demonstration without the equipment should be considered or the equipment should be thoroughly sanitized between uses.</li> <li>• Safety demonstrations should highlight to passengers that face coverings should be removed before donning emergency oxygen masks, should they be needed.</li> </ul>	
<i>Means for uniform implementation</i>	
<ul style="list-style-type: none"> <li>• Ensure that these considerations are fully supported by: <ul style="list-style-type: none"> <li>○ The applicable non-governmental agencies.</li> <li>○ Public health, immigration and customs agencies.</li> <li>○ Civil aviation authorities.</li> </ul> </li> <li>• A high degree of collaboration between airport operators and their associated stakeholder community.</li> <li>• Associated policy, procedures and training are developed to reinforce the importance of these considerations.</li> <li>• Use the <i>Crew COVID-19 Status Card</i> (PHC Form 1) or a similar one when appropriate.</li> </ul>	

<i>Element</i>	Layover
<i>Brief description (Objective)</i>	
<p>Ensure that all crew that need to layover or transit at an outstation are aware of the measures necessary to reduce the risk of transmission of COVID-19.</p> <p>Reference should be made to the ICAO Electronic Bulletin EB 2020/30 or as amended for the most up-to-date guidance.</p>	
<i>Considerations</i>	
<b>Layover/ transits</b>	
<p>If crews need to layover or transit at an outstation, air operators should coordinate with the State public health authorities and implement the following:</p> <ul style="list-style-type: none"> <li>• Commute arrangements (between airport and hotel, if needed): The air operator should arrange for the commute between the aircraft and the crew's individual hotel rooms ensuring hygiene measures are applied and the recommended physical distancing, including within the vehicle, to the extent possible.</li> <li>• At accommodation: <ul style="list-style-type: none"> <li>a) At all times, the crew must comply with relevant public health regulations and policies.</li> <li>b) There should be one crew member per room, which is sanitized prior to occupancy.</li> <li>c) The crew, taking account the above, and insofar as is practicable, should; <ul style="list-style-type: none"> <li>i. Avoid contact with the public and fellow crew members, and remain in the hotel room except to seek medical attention, or for essential activities including exercise, while respecting physical distancing;</li> <li>ii. Not use the common facilities in the hotel;</li> <li>iii. Dine in-room, get take-out or dine seated alone in a restaurant within the hotel, only if room service is not available;</li> <li>iv. Regularly monitor for symptoms including fever; and</li> <li>v. Observe good hand hygiene, respiratory hygiene and physical distancing measures when needed to leave the hotel room only for the reasons specified in (i), (iii) or in emergency situations.</li> </ul> </li> </ul> </li> <li>• Crew members experiencing symptoms suggestive of COVID-19 during layover or transit should: <ul style="list-style-type: none"> <li>a) Report it to the aircraft operator and seek assistance from a medical doctor for assessment of possible COVID-19.</li> <li>b) Cooperate with the assessment and possible further monitoring for COVID-19 in accordance with the evaluation procedure implemented by the State (e.g. assessment in the hotel room, or an isolation room within the hotel, or alternative location).</li> </ul> </li> <li>• If a crew member has been evaluated and COVID-19 is not suspected in accordance with the above procedures implemented by the State, the air operator may arrange for the crew member to repatriate to base.</li> </ul>	

- If a crew member is suspected or confirmed as a COVID-19 case by the State and isolation is not needed by the State, such crew member could be medically repatriated by appropriate modes; if there is agreement to repatriate the crew member to home base.

*Means for uniform implementation*

- Ensure that these considerations are fully supported by:
  - The applicable non-governmental agencies
  - Public health, immigration and customs agencies
  - Civil aviation authorities.
- A high degree of collaboration between airport operators and their associated stakeholder community.
- Associated policy, procedures and training are developed to reinforce the importance of these considerations.
- Use the *Crew COVID-19 Status Card* (PHC Form 1) or a similar one when appropriate.

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<i>Module</i>	<b>Cargo</b>
<i>Target audience:</i>	
Airline, freight forwarder, trucker, ground handler (cargo terminal operator).	
<i>Element</i>	Road Feeder to Freight Reception & freight pick up
<i>Brief description (Objective)</i>	
Protect cargo handling staff and truckers during the handover points for physical freight (in warehouse) and documentation (often office).	
<i>Considerations</i>	
<ul style="list-style-type: none"> <li>• Onsite biosafety principles: <ul style="list-style-type: none"> <li>○ Proximity for document handover should be minimized, floor markings should be indicated and / or appropriate PPE should be worn.</li> <li>○ Wherever possible, hand washing stations or alcohol-based hand sanitizer should be placed on entry.</li> <li>○ Surfaces (e.g. handles, kiosks) should be regularly cleaned and disinfected</li> <li>○ Alcohol-based hand sanitizer should be made available for users of kiosks, etc.</li> <li>○ Area(s) for donning and doffing of appropriate PPE as needed should be identified.</li> </ul> </li> <li>• Physical handover of goods (truck offload): <ul style="list-style-type: none"> <li>○ Drivers should stay in vehicle cabin until instructed (as per relevant procedures).</li> <li>○ Physical distance should be kept between driver and facility staff where possible.</li> <li>○ Close contact of personnel should be limited, appropriate PPE should be worn where appropriate.</li> </ul> </li> <li>• Documentation handover (office): <ul style="list-style-type: none"> <li>○ Digital document systems and data exchange should be implemented wherever possible.</li> <li>○ Physical distancing of at least 1 metre should be kept between all parties where possible, floor markings indicated or the appropriate PPE worn.</li> <li>○ Where physical documents need to be signed, each signatory should do so with their own pen.</li> <li>○ Physical barriers (transparent) should be installed at counters and reception.</li> <li>○ Alcohol-based hand sanitizer should be made available when entering or exiting common areas.</li> </ul> </li> <li>• Material handling equipment (MHE) usage (e.g forklifts, hand carts): <ul style="list-style-type: none"> <li>○ To avoid cross contamination, MHE should be cleaned and disinfected after use.</li> <li>○ Employees should be educated and should practice personal hygiene principles.</li> <li>○ Appropriate PPE should be worn where necessary.</li> </ul> </li> </ul>	
<i>Means for uniform implementation</i>	
<ul style="list-style-type: none"> <li>• Wall posters, handouts, downloadable from carrier and GHA web sites, and see Posters in Staff Rest Areas for samples on page A-43.</li> </ul>	

<i>Element</i>	Within Cargo facility (Origin / Destination / Transit)
<i>Brief description (Objective)</i>	Protect Cargo facility (warehouse) staff during business operations such as build-up, breakdown, repositioning and documentation handling.
<i>Considerations</i>	<ul style="list-style-type: none"> <li>• Onsite biosafety principles: <ul style="list-style-type: none"> <li>○ Physical distance should be kept at all times when operational safety is not compromised.</li> <li>○ Close proximity for handover minimized (e.g. drop zones) or appropriate PPE should be worn.</li> <li>○ Crew rotations should be maintained for 14-day periods to avoid cross-infection.</li> <li>○ Alcohol-based hand sanitizer should be placed on entry into common areas.</li> <li>○ Regular cleaning and disinfection of surfaces (e.g. handles, mobile devices, kiosks) should be established.</li> <li>○ Sanitizer should be made available for users of kiosks, shared mobile devices, and other shared devices.</li> </ul> </li> <li>• Physical handling goods: <ul style="list-style-type: none"> <li>○ Physical distance should be kept when operational safety is not compromised; <ul style="list-style-type: none"> <li>- When not possible (e.g. 2 person lift needed for heavy cargo) appropriate PPE should be worn.</li> </ul> </li> <li>○ Appropriate PPE should be worn where necessary.</li> </ul> </li> <li>• Material handling equipment (MHE) / ground support equipment (GSE) usage: <ul style="list-style-type: none"> <li>○ To avoid cross contamination MHE and GSE should be cleaned and disinfected between uses.</li> <li>○ All employees should be educated and should practice personal hygiene principles.</li> <li>○ Appropriate PPE should be worn where necessary.</li> </ul> </li> </ul>
<i>Means for uniform implementation</i>	<ul style="list-style-type: none"> <li>• Posters displayed through cargo facility and staff rest areas.</li> </ul>

<p><i>Element</i></p> <p style="text-align: center;">Cargo facility to ramp (Origin / Transit / Destination)</p>
<p><i>Brief description (Objective)</i></p> <p>Protect staff during the Cargo facility handover to/from ramp crews in preparation for aircraft loading and unloading.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Onsite biosafety principles <ul style="list-style-type: none"> <li>○ Physical distance should be kept at all times when operational safety is not compromised or appropriate PPE should be worn.</li> <li>○ Regular cleaning and disinfection of surfaces (e.g. handles, kiosks) should be established.</li> <li>○ Alcohol-based hand sanitizer should be made available for users of kiosks, shared mobile devices, etc.</li> <li>○ Close proximity for handover should be minimized (e.g. drop zones) or appropriate PPE should be worn.</li> <li>○ Crew rotations should be maintained for 14-day periods to minimize cross team infection.</li> </ul> </li> <li>• Physical handover of goods <ul style="list-style-type: none"> <li>○ Physical distance should be maintained, and cargo drop zones used where possible.</li> <li>○ Close contact of personnel should be limited, and appropriate PPE should be worn where necessary.</li> </ul> </li> <li>• Ground support equipment (GSE) usage <ul style="list-style-type: none"> <li>○ To avoid cross contamination, GSE should be cleaned and disinfected between users.</li> <li>○ All employees should be educated and should practice personal hygiene principles.</li> <li>○ Appropriate PPE should be worn where necessary.</li> </ul> </li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• Posters displayed in staff rest areas.</li> </ul>

<i>Element</i> Aircraft Loading / Unloading
<p><i>Brief description (Objective)</i></p> <p>Protect ramp handling staff during the loading and unloading of the aircraft, which is usually performed by multiple crews of 3 to 4 persons depending on the operation.</p> <p>Ensure enhanced public health safety when the number of close contact personnel rises during manual loading of the passenger cabin.</p>
<p><i>Considerations</i></p> <ul style="list-style-type: none"> <li>• Onsite biosafety principles <ul style="list-style-type: none"> <li>○ Physical distance should be kept at all times when operational safety is not compromised or appropriate PPE should be worn.</li> <li>○ Alcohol-based hand sanitizer should be placed on entry into common areas.</li> <li>○ Regular cleaning and disinfection of surfaces (e.g. handles, mobile devices, kiosks) should be established.</li> <li>○ Alcohol-based hand sanitizer should be made available for users of kiosks, shared mobile devices, etc.</li> <li>○ Close proximity of staff for loading should be minimized or appropriate PPE should be used particularly for passenger cabin loading.</li> <li>○ Crew rotations should be maintained for 14-day periods to avoid cross team infection.</li> </ul> </li> <li>• Physical Loading of goods <ul style="list-style-type: none"> <li>○ Physical distance should be kept when operational safety is not compromised (encourage single person operations).</li> <li>○ Close contact of personnel should be limited, and appropriate PPE should be worn where necessary.</li> <li>○ For “human chain” loading, appropriate PPE should be used (masks and gloves) and hygiene principles should be applied between operations.</li> </ul> </li> <li>• Material handling equipment (MHE) / ground support equipment (GSE) usage <ul style="list-style-type: none"> <li>○ To avoid cross contamination, MHE/GSE should be cleaned and disinfected between users.</li> <li>○ All employees should be educated and should practice personal hygiene principles.</li> <li>○ Appropriate PPE should be worn where necessary.</li> </ul> </li> </ul>
<p><i>Means for uniform implementation</i></p> <ul style="list-style-type: none"> <li>• Posters in staff rest areas.</li> <li>• Use the <i>Airport COVID-19 Cleaning / Disinfection Control Sheet</i> (PHC Form 3) or a similar one where appropriate.</li> </ul>

### **3. FORMS AND POSTERS**

<b>CREW COVID-19 STATUS CARD</b>							
<p><b>Purpose of this card:</b> Information to be recorded by crew prior to departure to confirm their COVID-19 health status and to facilitate processing by State's Public Health Authorities.</p> <p>Notwithstanding completion of this card, a crew member might still be subjected to additional screening by Public Health Authorities as part of a multi-layer prevention approach e.g. when recorded temperature is 38°C or greater.</p>							
<p><b>1. During the past 14 days, have you had close contact (face-to-face contact within 1 metre and for more than 15 minutes or direct physical contact) with someone who had symptoms suggestive of COVID-19?</b></p> <p style="text-align: right;">Yes <input type="checkbox"/> No <input type="checkbox"/></p>							
<p><b>2. Have you had any of the following symptoms during the past 14 days:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Fever</td> <td style="width: 50%;">Yes <input type="checkbox"/> No <input type="checkbox"/></td> </tr> <tr> <td>Coughing</td> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> </tr> <tr> <td>Breathing difficulties</td> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> </tr> </table>		Fever	Yes <input type="checkbox"/> No <input type="checkbox"/>	Coughing	Yes <input type="checkbox"/> No <input type="checkbox"/>	Breathing difficulties	Yes <input type="checkbox"/> No <input type="checkbox"/>
Fever	Yes <input type="checkbox"/> No <input type="checkbox"/>						
Coughing	Yes <input type="checkbox"/> No <input type="checkbox"/>						
Breathing difficulties	Yes <input type="checkbox"/> No <input type="checkbox"/>						
<p><b>3. Temperature at duty start:</b></p> <p>Temperature not recorded due to individual not feeling/ appearing feverish <input type="checkbox"/></p> <p>Temperature in degrees C° <input type="checkbox"/> / F° <input type="checkbox"/> : _____</p> <p>Date(dd/mm/yy): _____ Time: _____</p> <p>Recording method: Forehead <input type="checkbox"/> Ear <input type="checkbox"/> Other <input type="checkbox"/> _____</p>							
<p><b>4. Have you had a positive PCR COVID-19 test during the past 14 days?</b></p> <p style="text-align: right;">Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Attach report if available</p>							
<p><b>Crew member Identification:</b></p> <p>Name: Airline/ aircraft operator: Nationality and Passport No: Signature: Date (dd/mm/yy):</p>							

Public health corridor (PHC) Form 1

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## AIRCRAFT COVID-19 DISINFECTION CONTROL SHEET

**Aircraft Registration:** \_\_\_\_\_

*Aircraft disinfection was made in accordance with the recommendation of the World Health Organization, at a frequency determined by the National Public Health Authority and in accordance with approved products and application instructions of the aircraft manufacturer.*

Date (dd/mm/yy)	Time (24hr - Coordinated Universal Time (UTC))	Airport (ICAO code)	Remarks	Disinfector name
Aircraft areas treated		Disinfectant material	Comments	Disinfector signature
Flight deck <input type="checkbox"/> Passenger cabin <input type="checkbox"/> Cargo compartment(s) <input type="checkbox"/>  Other: _____				

Date (dd/mm/yy)	Time (24hr -UTC)	Airport (ICAO code)	Remarks	Disinfector name
Aircraft areas treated		Disinfectant material	Comments	Disinfector signature
Flight deck <input type="checkbox"/> Passenger cabin <input type="checkbox"/> Cargo compartment(s) <input type="checkbox"/>  Other: _____				

Date (dd/mm/yy)	Time (24hr -UTC)	Airport (ICAO code)	Remarks	Disinfector name
Aircraft areas treated		Disinfectant material	Comments	Disinfector signature
Flight deck <input type="checkbox"/> Passenger cabin <input type="checkbox"/> Cargo compartment(s) <input type="checkbox"/>  Other: _____				

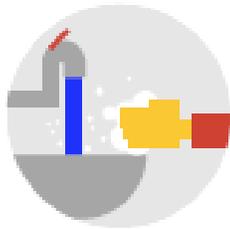
Public health corridor (PHC) Form 2



POSTERS IN STAFF REST AREAS

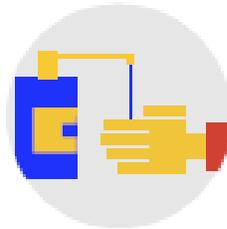
Instruction for Staff during COVID-19

Place holder  
EXAMPLE



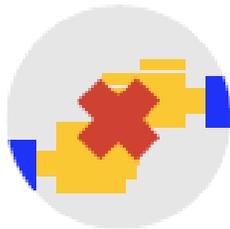
**Regularly wash your hands**

Use liquid soap and water to wash your hands for at least 20 seconds every time you enter the building.



**Disinfect**

When handwashing is not possible, disinfect your hands with an alcohol-based hand rub.



**Avoid shaking hands**

Remember that the virus spreads through coughing and sneezing via airborne droplets, as well as through direct contact.



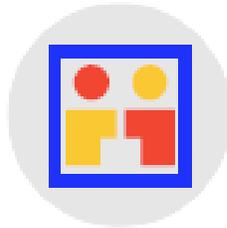
**Respect physical distancing**

Maintain a safe distance from others by following floor markings or other indicators. Driver to stay in the vehicle until instructed and follow local procedures.



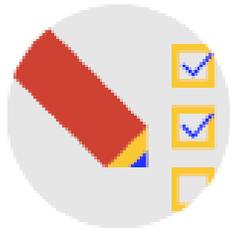
**Clean regularly**

Disinfect all frequently touched surfaces and all the equipment between uses.



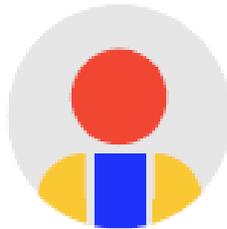
**Maintain the distance**

Avoid entering enclosed rooms with other people present or wear appropriate personal protective equipment.



**Use your own pen**

Ensure you don't touch others' pens when signing documentation.



**Follow any company, local or national guidance and regulations, especially if you show potential symptoms.**

**BE RESPONSIBLE.  
STAY SAFE.**



– END –