The United States Framework for Airlines and Airports to Mitigate the Public Health Risks of Coronavirus

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1. Introduction

The U.S. Department of Transportation (DOT), U.S. States Department of Homeland Security (DHS), and U.S. Department of Health and Human Services (HHS) published a revised version of "Runway to Recovery" on December 21st, 2020, which is a framework for airlines and airports to mitigate the public health risks of the novel coronavirus (COVID-19). The revision improved and expanded the risk mitigation methods in the original version issued in July of the same year. By outlining this updated framework, this report will observe how the Federal Aviation Administration is attempting to manage the effects of COVID-19 in aviation industry.

2. Outline of the Framework

The framework consists of 8 chapters as follows;

(1) Overview
(2) Principles
(3) Air Transportation Stakeholder Roles and Responsibilities
(4) A Risk-Based Approach for COVID-19 Outbreak Mitigation Planning
(5) Public Health Risk Mitigation in the Passenger Air Transportation System
(6) Future Areas of Research and Evaluation for Public Health Risk Mitigations
(7) Implementation Challenges Specific to International Travel
(8) Appendix A: Key Partners and Decision-Makers

Chapter 1, "Overview," specifies the measures within the framework to be taken by U.S. airlines and airports for all operations and phases when going across, in, and out of the United States, and how they should be applied in this unique air travel environment. At publication of the revised version, 4 items have been added and edited, including "Passenger and Aviation Workforce Education," "Contact Tracing," "Mask Use, specifically the need to accommodate those who cannot wear masks," and "Passenger Testing."

Next, in Chapter 2, "Principles," the foundations underlying the U.S. framework to perform public health measures within the aviation industry to mitigate risks of COVID-19 infection during air transportation travel are stated. The following are the words taken from this guidance, written in verbatim.

Remain Focused on Fundamentals: Safety and Security
- While implementing new public health measures, aviation safety and security cannot be compromised.
- Aviation workers, especially airline crew, should be trained and supported to address the additional stress that passengers and co-workers may be under while traveling in the current environment.

Promote Public Health Within the Air Transportation System
- All aviation stakeholders have a shared interest and responsibility in promoting public health for everyone in the air transportation system.
- Stakeholders should utilize evidence-based public health measures throughout the continuum of the passenger's journey, including before arrival at an airport, while in an airport, during flight, and after arriving at a destination, to minimize virus transmission throughout the air transportation system, as recommended by the CDC for reduced risk of exposure to and translocation of the SARS-CoV-2 virus.
  - o Measures should reflect the full range of passenger needs, including requirements under the Rehabilitation Act, the Americans with Disabilities Act, and the Air Carrier Access Act. Consistent with these laws, it may be necessary for airports and airlines to modify certain

measures to accommodate passengers with a disability while maintaining public health.

- o Sufficient information should be provided to passengers in advance of travel regarding public health measures taken at departure, during flight, and at the destination to facilitate informed decision making on the part of a passenger as to whether and where to travel.
- o Measures should respect individuals' privacy, civil rights, and civil liberties.
- To the extent possible, stakeholders should maximize consistency of measures in the domestic and international air transport systems with recommended practices outlined in the International Civil Aviation Organization (ICAO) Council Aviation Recovery Taskforce (CART) "Takeoff" Guidance, also recently updated in November 2020 to reflect changes.

Recognize Aviation as a Driver of Economic Recovery

- An air transportation system that can move people and goods safely and efficiently without exacerbating public health concerns is critical to support economic recovery nationwide.
- Innovation, creativity, flexibility, and rapid technology deployment are central to responding to and recovering from the COVID-19 public health emergency and achieving a new paradigm in air travel that is beneficial for passengers, workers, the broader aviation industry, and the U.S. economy.
- Aviation operations encompass a wide variety of business models. Where possible, consistent with CDC, state, and local guidance, public health measures should be flexible to ensure that a range of airline and airport operational strategies remain viable and support economic recovery.
- Public health measures in the aviation sector must be consistent with obligations under international law and preserve the competitive structure of the industry by not unnecessarily or unfairly restricting market access for international transportation.

Chapter 3, "Air Transportation Stakeholder Roles and Responsibilities," explains the importance of emphasizing individual responsibilities to those within the air transportation system, including passengers, so

that efforts can be made to overcome and minimize COVID-19 infection risks on the way to recovery. Citing a survey conducted within the private sector in May, Chapter 3 asserts that passengers hope for synergistic results from the combination of technology, civil responsibility and public health measures. It also mentions that education, cooperation, situational awareness at various levels of government and the aviation industry will be important factors for a successful recovery of the aviation industry.

In the beginning of Chapter 4, "A Risk-Based Approach for COVID-19 Outbreak Mitigation Planning," it says that recovery of future air travel, especially for the domestic market, depends on the following: the level of infection rates in local U.S. areas; efforts to decrease public health risks related to traveling; obtaining trust from passengers, employees of airlines and airports, and citizens; lifting travel restrictions; making rules and responding to public health concerns of local communities; and the supply capacity of airlines. In order to minimize risks and achieve a goal to consistently maximize applications of risk mitigation ideas, the chapter added that it is important that a risk-based approach supports mitigation measures that are adjusted based on geographical risk differences.

Furthermore, one of the biggest issues of COVID-19 for public health and air transportation systems is that the virus can spread through pre-symptomatic and asymptomatic carriers who exude no symptoms, and U.S. airports checking inbound passengers' temperatures and physical conditions at the beginning of pandemic only found one infected person in every 85,000. Thus, the chapter explains that it may be difficult to achieve risk mitigation goals relying solely on one measurement, such as taking temperatures. Additionally, it exclaimed that the multi-layered approach described in this framework are essential to minimize the spread of COVID-19 within the air transportation system, showing confidence that these recommendations combined will be an effective risk mitigation approach and hope that airlines and airports will implement them as much as possible.

Chapter 5, "Public Health Risk Mitigation in the Passenger Air Transportation System," describes the individual public health measure performed by each central air transportation body for every operation phase. Firstly, there are 4 main categories: General Risk Mitigation; Airport Ground Transport; Airport Common Areas, Terminals, and Retail; and Aircraft. There are also auxiliary and minor categories for each measure and every operation phase. Referencing these measures has become simplified with the addition of specific content on the recommended measure (Recommendation), the rationale for why the measure is effective (Rationale), and the source of the basis (Resources) for each category. For example, "Social Distancing" in the main category of "General Risk Mitigation" has the following written:

Social Distancing

Recommendation: Airports should continue to use appropriate measures in any shared spaces to assist people in staying socially distanced (e.g., floor markings, blocking terminal or gate area seating, etc.); airlines should also do so to the extent feasible, as discussed later in this document. This recommendation also applies to any third-party vendors operating at the airport, such as concessionaires or lounge providers. To the maximum extent possible, people should maintain at least six feet of distance from each other, unless they are a household family/social unit, in which case they can congregate amongst themselves, but should maintain at least six feet of distance from others outside of their group. Strategies to allow for social distancing should also be employed for passenger transports used within the airport (e.g., trains, buses, etc.). It is imperative that airlines and airports inform passengers when it may not be possible to meet social distancing expectations and, as a result, emphasize the additional importance of observing all the other preventive measures, including strict hand hygiene, respiratory etiquette7, and wearing a mask.

Rationale: SARS-CoV-2 spreads mainly among people who are in close contact with an infected person or persons for greater than 15 minutes over a 24-hour period. Social distancing of at least six feet is a way to reduce the spread of infection in an indoor setting. However, the air transportation system presents many areas where confined physical spaces make recommended social distancing difficult or impossible to achieve at times. Where space constraints limit the practice of social distancing, such as onboard aircraft or within the Federal Inspection Station (FIS) area during peak international arrival times, it is essential that passengers, crew members, and aviation workers adhere at all times to all other preventive measures, especially handwashing, respiratory etiquette, and wearing a mask.

Resources: CDC developed guidance on social distancing, including for people with disabilities, on its website: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html

Measures and operation phases are segmented as follows. Please refer to the original source for more details.

- General Risk Mitigation
  - o Passenger and Aviation Worker Education
  - o Collecting Information to Support Contact Tracing
  - o Social Distancing
  - o Masks
  - o Cleaning and Disinfection
  - o Passenger Health Assessments
  - o Health Attestations
  - o COVID-19 Testing
  - o Public Health Corridors
  - o Temperature Screening
  - o Vaccination
  - o Separation of Crew/Aviation Workers and Passengers
  - o Minimize Document Handling and Physical Contact between Airport Workers and Passengers
  - o Daily/Routine Reporting

- Airport Ground Transport
  - o Airport Common Areas, Terminals, and Retail
  - o Contactless Check-in
  - o Checked Baggage Drop
  - o Airport Security Checkpoints

- Aircraft
  - o Seat Assignment Processes
  - o Adjusted Boarding Processes
  - o Aircraft Ventilation Adjustments
  - o Limit or Suspend Onboard Customer Services
  - o Lavatory Use
  - o Personal Protective Equipment for Crew and

Passengers（PPE）
- Additional Crew Protections
- Disembarkation Procedures
- Aircraft Disinfecting
- U.S. Customs and Border Protection（CBP）

Clearance
- Baggage Claim

Chapter 6, "Future Areas of Research and Evaluation for Public Health Risk Mitigations," introduces methods to reduce public health risks, which are currently ongoing or are being planned. For example, it includes travel procedures that have biometric authentication equipped with high privacy protection technology, technology to disinfect baggage while conducting X-Ray examinations, and evaluation on infection risk on board.

Lastly, Chapter 7, "Implementation Challenges Specific to International Travel," emphasizes that the "Runway to Recovery" framework parallels internationally recommended measures, and U.S. health measures implemented for international travel by U.S. operators are related to the requirements under various international air transportation agreements and other international aviation agreements. Carefully considering for impacts on competition and market access distortions, aviation operators restricted by Presidential Proclamations imposing travel restrictions on foreigners entering from certain countries will continue to demand for exceptions for entry into the United States, will consistently perform public health measures following as closely as possible to requirements of federal, states, and local communities, and develop a platform within the current legal framework for private information to be exchanged safely.

3. Conclusions

The fact that detailed public health measures are included for every airline and airport business operation is commendable. Furthermore, as this framework will clearly be added to and improved in the future, it is evident that the U.S. government considers recovery of the aviation industry in this unprecedented situation to be essential. I will continue to pay close attention to the future developments of this framework.

References
https://www.transportation.gov/sites/dot.gov/files/2020-12/Runway_to_Recovery_1.1_DEC2020_Final.pdf