

October 21, 2019

The Honorable Elaine Chao  
Secretary  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590

The Honorable Steve Dickson  
Administrator  
U.S. Federal Aviation Administration  
800 Independence Avenue, SW  
Washington, DC 20591

Dear Secretary Chao and Administrator Dickson:

The undersigned consumer and passenger rights groups write to urge you to ensure that before the U.S. Federal Aviation Administration (“FAA”) conducts its upcoming passenger evacuation tests in November, that it updates evacuation testing standards to accurately reflect significant changes that have taken place in commercial flight and the lessons learned since the current standards were adopted in the 1990s.

Among our concerns, discussed below, we are particularly disturbed by recent media reports suggesting that FAA intends to use a single-aisle narrow-body simulator that may only hold as few as 60 passengers to simulate two aircraft types – the Boeing 737 and Airbus A320 – that carry far more than twice that number.<sup>1 2</sup> This test is well below the seating capacity of most commercial aircraft in use in the U.S. The use of a simulator configured in such a way, with only a fraction of the passengers of a typical airplane, would constitute a fatal flaw in the testing model.

There needs to be a fully transparent process with sufficiently representative stakeholder participation to ensure that the public can be confident that tests are realistic simulations of situations passengers would actually face in an emergency evacuation. Absent such transparency, and stakeholder engagement, there is a danger that test results will simply be a ratification of seating configurations and evacuation procedures that would not pass muster under properly designed and acknowledged standards.

Section 337 of the FAA Reauthorization Act of 2018<sup>3</sup> (“2018 Act”) requires FAA to review evacuation certification of U.S. passenger aircraft with regard to emergency conditions (including impacts into water); crew procedures used for evacuations “under actual emergency conditions;” “any relevant changes to passenger demographics and legal requirements” that affect emergency evacuations; and “any relevant changes to passenger seating configurations, including changes to seat width, padding, reclining, size, pitch, legroom, and aisle width[.]” On September 26, 2019, nearly a year after Congress passed the 2018 Act, FAA Deputy Secretary Dan Elwell announced that FAA will conduct tests of airplane evacuations involving 720 “demographically representative” people over twelve days in November 2019<sup>4</sup> at the Civil Aerospace Medical Institute (“CAMI”) in Oklahoma City.<sup>5</sup>

Unfortunately, FAA did not announce at the same time that it would update the standards used for this testing. We were disturbed to learn from recent news reports that FAA intends to conduct its November tests under standards that do not adequately reflect realistic conditions, including significant changes that the U.S. airline industry has experienced since FAA last conducted real-world evacuation testing. To comply with Congress’ intent, as expressed in the 2018 Act, current evacuation testing standards<sup>6</sup> should be updated to account for the following factors:

- **Record-high passenger loads not seen since World War II** – According to the U.S. Bureau of Transportation Statistics (“BTS”), average system-wide load factors were at 82.5% in 2017, and increased to 83.0% in 2018.<sup>7</sup> For comparison, after the deregulation of the industry in 1978, average load factors did not exceed 65% until 1994.<sup>8</sup> Such high averages further indicate that more flights than ever operate at 100% occupancy. It is therefore imperative that FAA tests comply with the requirement of 14 CFR § 25.803(c) that evacuations tests be conducted with the “maximum seating capacity” of the types of actual aircraft that will be in use. Reduced-size single-aisle simulators that may only hold as few as 60 passengers would utterly fail to comply. It is critical that testing involves a mock-up of an entire aircraft cabin (not a truncated portion of a cabin) to ensure that *all* passengers can

evacuate safely. This is especially critical in light of a National Transportation Safety Board study that found an evacuation slide failed in 37% of the deployment cases it studied.<sup>9</sup>

- **Tighter seats and larger passengers** – There has been ample evidence that economy class seating room on domestic carriers has been reduced over the last three decades as defined by both seat width and seat legroom/pitch.<sup>10</sup> In addition, the Centers for Disease Control confirms that in recent decades American men and women have on average grown both taller and heavier.
- **Increased amount of carry-on baggage** – FAA emergency evacuation testing standards require that approximately “one-half of the total average amount of carry-on baggage” be distributed in the aisles and emergency exit access. However, it is unclear how FAA calculates the “total average amount” of carry-on baggage since BTS does not track carry-on baggage as it does checked baggage. As checked baggage fees have become ubiquitous on nearly all domestic carriers over the last decade, and average load factors continue to increase, anecdotal evidence suggests that more flights than ever are taking off with overhead bins completely full. We would, therefore, urge FAA to state what is the total average amount of carry-on baggage it uses in its evacuation tests and release the data it uses to calculate the total average amount of carry-on baggage. In addition, in recent years there has been a dramatic increase in “emotional support animals” in commercial aircraft cabins, including animals as large as miniature horses.<sup>11</sup> However, we have seen no indication that FAA is considering the impact on evacuations of having these animals onboard.
- **Passengers taking baggage during evacuations** – Evidence from numerous recent evacuations show that a significant number of passengers can be expected to put themselves and others at risk by taking baggage with them during evacuations.<sup>12 13</sup>  
<sup>14</sup> For example, authorities are currently investigating whether such behavior

caused additional deaths in the Aeroflot Flight 1492 accident earlier this year.<sup>15</sup> One survey of British passengers found that 35% of passengers would try to gather their belongings in the event of an emergency evacuation, even if they were told not to do so.<sup>16</sup> Following an evacuation incident with American Airlines flight 383 on October 28, 2016, the NTSB recommended that FAA “(1) measure and evaluate the effects of carry-on baggage on passenger deplaning times and safety during an emergency evacuation and (2) identify effective countermeasures to reduce any determined risks, and implement the countermeasures.”<sup>17</sup> It is unclear whether FAA has done such an evaluation and, if necessary, updated its evacuation testing standards to reflect the results of that study.

- **Parents separated from children** – §2309 of the 2016 FAA reauthorization bill<sup>18</sup> mandated that the DOT conduct a review and “if appropriate” adopt a policy requiring airlines to seat children aged 13 or under with an accompanying family member. Despite evidence from the Federal Bureau of Investigation that sexual assault on airlines, including against minors, is a significant problem,<sup>19</sup> and despite the revelations recently obtained by Consumer Reports under the Freedom of Information Act that dozens of parents have complained about being separated from children as young as 2 years old,<sup>20</sup> the DOT’s only action to date has been to publish a consumer education page on its website.<sup>21</sup> Current FAA evacuation standards require only that three life-size dolls be carried by evacuation participants to simulate infants aged 2 years old or younger. Airline policies with regard to family seating and changes to airline seat reservation practices have increased the likelihood that parents will be separated from their children in the event of an emergency evacuation.<sup>22 23</sup> Nonetheless, current FAA evacuation testing standards do not account for the fact that panicked parents and children are likely to slow evacuations while they try to find each other due to their separation in the cabin.
- **Distractions and obstacles created by passenger electronics** – According to SITA, an air transport IT provider, almost 98% of airline passengers are flying with at least one electronic device, and as many as 70% of passengers carry two or more

devices.<sup>24</sup> There have been numerous instances where passengers may have slowed down evacuations in order to film themselves evacuating.<sup>25 26 27 28</sup> These devices are also frequently plugged into in-seat A/C adapters and USB ports. The cables connecting devices to these ports can create obstacles to safe evacuations if they are not disconnected prior to evacuation.

- **Makeup of test participants** – As previously noted, FAA intends to conduct its November testing with a group of 720 “demographically representative” participants. To meet this goal, the participant pool should include demographically representative percentages of participants who are over the age of 65, who are overweight, obese and tall. When the need to preserve tester safety precludes the inclusion of such participants, the presence of such passengers should be accurately simulated. We would also be concerned if the participant pool included FAA employees or airline employees who are more familiar with evacuation procedures than the general population, the vast majority of whom travel no more than once a year. FAA should be required to use test participants who are not in any way connected to FAA or the airline industry. There should also be efforts put into place to simulate the widespread, adrenaline-spiked panic that would be expected in an actual emergency evacuation. Offering a small payment to those who get out first is highly unlikely to accurately simulate such panic.
- **Passengers with disabilities** – According to BTS, 25.5 million Americans age 5 and older have a travel-limiting disability.<sup>29</sup> However, FAA’s current evacuation testing standards do not attempt to account for the presence of passengers with disabilities that may impact an emergency evacuation. We recognize FAA’s interest in ensuring testing participants’ safety in how it structures the simulated evacuation environment. However, we believe that the current evacuation standards can and should be updated to realistically simulate the likely presence of passengers with disabilities in an actual evacuation scenario.

Our concerns are shared by the DOT Office of Inspector General (OIG), which is currently conducting an audit of FAA's evacuation standards.<sup>30</sup> Despite the OIG's ongoing audit, FAA has given no indication that it will update those standards prior to initiating its evaluation testing in November. We urge FAA to obtain the results of the OIG's audit before conducting its tests and to direct sufficient resources to helping expedite the completion of that audit.

In addition to our concerns about the standards themselves, our organizations are also concerned with the lack of transparency of FAA's process of collecting feedback from interested stakeholders. Section 337(b)(1) of the 2018 Act<sup>31</sup> requires that FAA consult with a broad range of aviation stakeholders, including passenger rights groups, in its evaluation of evacuation certification standards. To comply, FAA established the Emergency Evacuation Standards Aviation Rulemaking Committee ("ARC"), publishing its charter on August 29, 2019.<sup>32</sup> We understand that the ARC is scheduled to hold its first meeting October 22-24, 2019, mere weeks before the November tests. Given the compressed timeframe, and the fact that the ARC's membership is heavily weighted with industry representatives, we are concerned that FAA will not adequately implement the ARC's input prior to the November tests.

Confusingly, the ARC's charter from FAA explicitly prohibits it from addressing the impact of seat dimensions and passenger demographics on evacuation safety. The ARC's charter explains that this is the case because the topic is already under evaluation by the CAMI. This creates a dilemma that FAA must explain. Congress charged FAA with consulting with passenger rights groups as part of its review of evacuation standards. The advisory group that FAA created to meet this requirement appears to be precluded from providing any meaningful input. How then, is FAA meeting Congress' mandate under §337(b)(1)?

As consumer and passenger rights advocates, we urge you to respond to our concerns *before* conducting the November tests. We hope you agree that it is essential that FAA tests not simply rubber-stamp airlines' current and future safety-questionable seating configurations for purposes of meeting the FAA's 90-second evacuation threshold.

Sincerely,

National Consumers League

Business Travel Coalition

Consumer Action

Consumer Federation of America

Consumer Reports

EdOnTravel.com

FlyersRights.org

Travel Fairness Now

Travelers United

U.S. Public Interest Research Group Education Fund

cc: The Honorable Peter DeFazio, Chairman, House Transportation and Infrastructure Committee

The Honorable Sam Graves, Ranking Member, House Transportation and Infrastructure Committee

The Honorable Rick Larsen, Chairman, House Aviation Subcommittee

The Honorable Garret Graves, Ranking Member, House Aviation Subcommittee

The Honorable Roger Wicker, Chairman, Senate Commerce Committee

The Honorable Maria Cantwell, Ranking Member, Senate Commerce Committee

The Honorable Ted Cruz, Chairman, Senate Aviation and Space Subcommittee

The Honorable Kyrsten Sinema, Ranking Member, Senate Aviation and Space Subcommittee

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