#### DEPARTMENT OF TRANSPORTATION

Office of the Secretary

14 CFR Part 382

[Docket No. DOT-OST-2021-0137]

RIN No. 2105-AE89

**Accessible Lavatories on Single-Aisle Aircraft** 

**AGENCY:** Office of the Secretary (OST), U.S. Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** The U.S. Department of Transportation (Department or DOT) is issuing a final rule to amend the Department's Air Carrier Access Act (ACAA) regulation to improve the accessibility of lavatories on single-aisle aircraft. This final rule is intended to ensure that our air transportation system is safe and accessible to individuals with disabilities.

**DATES:** This rule is effective [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN FEDERAL REGISTER].

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#### SUPPLEMENTARY INFORMATION

### 1. Purpose of Regulatory Action

The Department is committed to ensuring that our air transportation system is safe and accessible for all. This includes taking necessary action to remove transportation barriers that exist for individuals with disabilities. Like all individuals, those with disabilities rely on transportation for all aspects of their lives. Transportation connects individuals to family and friends, to jobs and to vital services, and it opens the door to opportunity.

While accessible lavatories have been required on twin-aisle aircraft for decades, until now, there has been no requirement that airlines provide accessible lavatories on single-aisle aircraft. However, single-aisle aircraft are increasingly used by airlines for long-haul flights because the fuel efficiency and range of the aircraft have improved. The percentage of flights between 1,500 and 3,000 miles flown by single-aisle aircraft increased from less than 40 percent in 1991 to 86 percent in 2021. These flights can last four or more hours.

The inability to safely access and use the lavatory on long flights can impact the dignity of passengers with disabilities and deter them from traveling by air, limiting their independence and freedom to travel. This final rule addresses a human rights issue and promotes freedom to travel for people with disabilities. It is an unfortunate reality that today, many air travelers with disabilities, knowing that they will not be able to use the lavatory during a flight, may dehydrate themselves or even withhold bodily functions so that they do not need to urinate. These actions can cause adverse health effects, including increased chances of urinary tract infections. Other passengers may use adult diapers or catheters, which they may find degrading and uncomfortable. Some wheelchair users avoid flying altogether. For example, a recent survey conducted by

<sup>&</sup>lt;sup>1</sup> TS T-100 All Segment data, retrieved November 2022.

Paralyzed Veterans of America (PVA) and 11 other veterans' and disability advocacy organizations found that 56% of respondents reported that inaccessible lavatories were reason enough to choose not to fly unless absolutely necessary.<sup>2</sup> These are conditions that passengers without disabilities would justifiably consider intolerable.

Regulation is necessary because the private marketplace has not met this basic need for accessible lavatories. While a relatively small number of single-aisle aircraft do have lavatories that approximate the size and functionality of accessible twin-aisle aircraft lavatories, the vast majority of aircraft lavatories are too small to accommodate on-board wheelchairs or attendants. While accessible lavatory options do exist in the marketplace, airlines have largely chosen to forgo them in favor of an additional row of seats or extra galley space. Existing lavatories often lack accessible features and a safe and reliable means of accessing those lavatories using an on-board wheelchair. Information regarding the accessible features of lavatories is difficult to obtain.

We expect this rule to directly benefit millions of individuals with mobility impairments who cannot independently access the lavatory as a result of neuromuscular injury, disease, or weakness. The rule will also benefit individuals with visual or other impairments who can access the lavatory but need accessible features within the lavatory. We also anticipate that the rule will indirectly benefit passengers of size and families with small children.

### 2. Statutory Authority

The Air Carrier Access Act (ACAA), 49 U.S.C. § 41705, prohibits discrimination in airline service based on disability. When enacted in 1986, the ACAA applied only to U.S. air carriers.

On April 5, 2000, the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century amended the ACAA to include foreign carriers. The ACAA, while prohibiting discrimination by

<sup>&</sup>lt;sup>2</sup> Comment of PVA, available at <a href="https://www.regulations.gov/comment/DOT-OST-2021-0137-0350">https://www.regulations.gov/comment/DOT-OST-2021-0137-0350</a>, Exhibit A. PVA represents over 16,000 veterans of the U.S. armed forces with spinal cord injury or disease. See <a href="https://pva.org/find-support/membership/">https://pva.org/find-support/membership/</a>.

U.S. and foreign air carriers in air transportation against qualified individuals with disabilities, does not specify how carriers must act to avoid such discrimination. The statute similarly does not specify how the Department should regulate with respect to these issues. In addition to the ACAA, the Department's authority to regulate nondiscrimination in airline service on the basis of disability is based in the Department's rulemaking authority under 49 U.S.C. § 40113, which states that the Department may take action that it considers necessary to carry out this part, including prescribing regulations. The Department, through reasonable interpretation of its statutory authority, has issued regulations (at 14 CFR Part 382) that require carriers to provide nondiscriminatory service to individuals with disabilities.

# 3. Summary of Rulemaking Activities

In 2016, the Department established the Advisory Committee on Accessible Air

Transportation (ACCESS Advisory Committee or Committee) to negotiate and develop proposed regulations on various issues, including accessible lavatories on single-aisle aircraft.<sup>3</sup> The

Committee consisted of stakeholders including disability rights advocates, airlines, flight attendants, aircraft manufacturers, and the Department itself. On November 22, 2016, the

Committee reached consensus on recommendations for new regulatory proposals to improve the accessibility of lavatories on single-aisle aircraft.<sup>4</sup> The agreement included recommendations for both short-term and long-term accessibility improvements. During the negotiated rulemaking process, the Department indicated that if the stakeholders reached consensus, the Department would act in good faith to propose rules reflecting that consensus.

In June 2019, the Department announced that the most appropriate course of action was to

<sup>&</sup>lt;sup>3</sup> 81 FR 26178 (May 2, 2016).

<sup>&</sup>lt;sup>4</sup> https://www.transportation.gov/office-general-counsel/negotiated-regulations/final-resolution-access-committee.

conduct two separate accessible lavatory rulemakings: one for short-term improvements, and one for long-term improvements. On January 2, 2020, the Department published a notice of proposed rulemaking (NPRM) relating to short-term improvements (the Part 1 NPRM).<sup>5</sup> In that rulemaking, the Department proposed improvements to lavatory interiors, additional training and information procedures relating to lavatory accessibility, and improvements to the aircraft's on-board wheelchair (OBW), but without requiring airlines to expand the size of the lavatory itself. The comment period to the Part 1 NPRM closed on March 2, 2020.

On December 16, 2021, the Department and the Architectural Transportation Barriers and Compliance Board (Access Board) held a joint public meeting to gather additional information regarding proposed improvements to the OBW. In connection with this public meeting, the Department reopened the comment period for the Part 1 NPRM from December 16, 2021, to January 17, 2022.

On March 28, 2022, the Department issued an NPRM regarding long-term accessibility improvements that would require airlines to install larger lavatories on certain single-aisle aircraft to permit a qualified individual with a disability to perform a seated independent (unassisted) and dependent (assisted) transfer from an OBW to and from the toilet (the Part 2 NPRM).<sup>6</sup> In that rulemaking, the Department expressed its intention to issue one final rule regarding accessible lavatories that would address the issues in both the Part 1 NPRM and the Part 2 NPRM. The comment period to the Part 2 NPRM closed on May 28, 2022.

<sup>&</sup>lt;sup>5</sup> 85 Fed. Reg. 27 (January 2, 2020), available at <a href="https://www.federalregister.gov/documents/2020/01/02/2019-27631/accessible-lavatories-on-single-aisle-aircraft-part-1">https://www.federalregister.gov/documents/2020/01/02/2019-27631/accessible-lavatories-on-single-aisle-aircraft-part-1</a>.

<sup>6 87</sup> Fed. Reg, 17215 (March 28, 2022), available at https://www.federalregister.gov/documents/2022/03/28/2022-05869/accessible-lavatories-on-single-aisle-aircraft-part-2.

# 4. Summary of the Major Provisions

SUBJECT	FINAL RULE	APPLICABILITY
Lavatory Interiors	Lavatory must have grab bars, accessible faucets and controls, accessible call buttons and door locks, minimum obstruction to the passage of an on-board wheelchair (OBW), toe clearance, and an available visual barrier for privacy. Retrofitting not required, but accessibility features are required if lavatory is replaced.	New single-aisle aircraft with 125+ seats, delivered 3 years after effective date of the rule
OBW improvements	OBW must facilitate safe transfer to and from the aircraft seat, have locking wheels, and have adequate padding, supports and restraints.  OBW must permit partial entry into lavatory in forward position to permit transfer from OBW to toilet.  OBW must be maneuverable into the lavatory so as to completely close the lavatory door; if this is not possible in the short term when lavatories are not required to be expanded beyond current measures, airlines must provide visual barrier on request.  Airlines must stow OBW in any safe available stowage space.	Operators of single- aisle aircraft with 125+ seats, 3 years after effective date of the rule
Training and Information	Annual hands-on training required regarding OBW use, stowage, and assisting passengers to/from the lavatory on the OBW.  Information required within aircraft and on airline web sites regarding accessibility features of lavatory.	Operators of single- aisle aircraft with 60+ seats, 3 years after effective date of the rule
International Symbol of Accessibility	Symbol must be removed from lavatories that cannot accommodate an assisted independent transfer from OBW to toilet seat. Symbol must be applied to lavatories that can do so.	Operators of single- aisle aircraft with 60+ seats, 3 years after effective date of the rule
Sharps and bio- waste	Airlines must develop procedures for handling sharps and bio-waste and must inform passengers of those procedures on request.	Operators of single- aisle aircraft with 60+ seats, 3 years after effective date of the rule

Expanded lavatory	Lavatory must permit a person with a disability and an	New single-aisle
size	attendant, both equivalent in size to a 95 <sup>th</sup> percentile	aircraft with 125+
	male, to approach, enter, maneuver within as necessary	seats, ordered 10 years
	to use all lavatory facilities, and leave, by means of the	or delivered 12 years
	OBW, in a closed space that affords privacy equivalent	after effective date, or
	to that afforded to ambulatory users.	on new type-
		certificated aircraft
		designs filed 1 year
		after effective date.

#### **DISCUSSION**

#### I. SHORT-TERM IMPROVEMENTS

#### A. Overview

#### 1. NPRM and Comments

The Part 1 NPRM addressed accessibility improvements that could be implemented on a relatively short-term basis that did not involve expanding the size of the lavatory itself. These improvements included accessible lavatory interiors, information and training requirements, and improvements to the aircraft's OBW. In general, the NPRM proposed performance standards rather than design standards. The Department also indicated that it was considering whether to prohibit the floor dimensions (footprint) of lavatories from being further *reduced* from current measurements, on the ground that further reduction would adversely impact accessibility.

The Department received 336 comments to the Part 1 NPRM during the original comment period (January 2-March 2, 2020). The majority of comments were from individuals. All individual commenters either expressed support for the rule, or expressed the view that lavatories should be larger, or both. Broadly speaking, disability advocates expressed a preference for design standards over performance standards, observing that design standards are used for Amtrak and commuter rail. They supported the proposal that lavatory footprints should not be reduced beyond current measurements. They generally supported the information and training requirements. Airlines supported the Department's proposed improvements to lavatory interiors, including the

<sup>&</sup>lt;sup>7</sup> In general, performance standards describe a function that should be met, but leave flexibility in how to meet that standard. Design standards describe a function with greater technical specificity but may, as a result, limit the ways that such a standard could be met. Performance standards are consistent with Executive Order (EO) 12866, section 1(8) ("Each agency ... shall, to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt."). The Part 1 NPRM referenced DOT Order 2100.6 (2018), which provided guidance regarding its own rulemaking procedures, including a preference for performance standards. While the Department has repealed Order 2100.6, the adoption of performance standards remains consistent with EO 12866.

adoption of performance standards. They also supported the Department's proposals for information, signage, and procedures for disposing of sharps (such as needles and syringes) and bio-waste (defined as any waste containing infectious materials or potentially infectious substances). However, they opposed the Department's OBW proposal in its entirety, arguing that the Department failed to adequately consult with stakeholders and failed to adequately consider safety. They also opposed the position that lavatory footprints must not be reduced from current measurements. Aircraft manufacturers (Airbus and Boeing) generally supported the Part 1 NPRM. Airbus generally commented that the proposals were feasible from an engineering perspective. Boeing supported the Department's view that at least one lavatory should not be reduced from existing measurements and supported the use of performance standards.

### 2. OBW Standards - Public Meeting and Comment

As noted above, the Department and the Access Board held a joint public meeting to solicit input from stakeholders regarding OBW standards. The Department indicated that the meeting was intended to satisfy the consultation provisions of the negotiated rulemaking with respect to OBW standards. The Department specifically solicited comment from disability advocates, airlines, and aircraft manufacturers regarding all aspects of OBW design, including but not limited to costs, benefits, safety considerations, and stowage. The Department also made significant efforts to elicit data and comment from OBW manufacturers themselves, with no success; OBW manufacturers did not participate in the meeting or file comments. During the reopened comment

<sup>&</sup>lt;sup>8</sup> Minutes of the meeting are available at https://www.regulations.gov/document/DOT-OST-2019-0180-0363.

<sup>&</sup>lt;sup>9</sup> Specifically, the Access Advisory Committee agreed that the new OBW standards would apply to aircraft with FAA-certificated seating capacity of 125 seats or more, and that the OBW would: (1) permit passage in the aircraft aisle; (2) fit within available stowage space; and (3) not require modification to lavatory interiors. The stakeholders further agreed that DOT must "consult with advocates, airlines, aircraft manufacturers, manufacturers of OBW, flight attendant association(s) and other stakeholders in developing these standards," and include the new standards in its NPRM.

period, the Department received a total of 12 comments from individuals and stakeholders. <sup>10</sup> We will discuss the details of this meeting and stakeholder comments in greater detail below.

### **B.** Section-by-Section Analysis

### 1. Improvements to Existing Lavatory Interiors

### NPRM and Comments

The Department proposed that grab bars be installed and positioned as required to meet the needs of individuals with disabilities. The proposed rule did not include a specific weight-support minimum threshold (e.g., 250 pounds). In keeping with the Department's preference for performance standards, we indicated that a specific weight threshold would be unduly prescriptive, and that grab bars must necessarily support significant weight in order to adequately meet the needs of individuals with disabilities. The Department sought comment on whether this general performance standard provides sufficient guidance to airlines and lavatory manufacturers. The Department sought comment on whether a weight-support minimum threshold is necessary, and if so, what that threshold would be. Airlines for America (A4A) and the International Air Transport Association (IATA)<sup>11</sup> supported the proposal and asked the Department to clarify in guidance or in the preamble that airlines may comply with the performance standard by reference to other Federal standards, such as Americans with Disabilities Act (ADA) standards. Boeing supported the Department's use of performance standards throughout the Part 1 NPRM.

<sup>&</sup>lt;sup>10</sup> PVA, A4A/IATA, the Regional Airline Association (RAA), Spirit Airlines, Boeing, Airbus, the Transport Workers Union of America, and five individuals. PVA's letter was co-signed by All Wheels Up, the Christopher & Dana Reeve Foundation, Cure SMA, the Disability Rights Education & Defense Fund (DREDF), the Epilepsy Foundation, Hand in Hand: The Domestic Employers Network, the Health Equity Collaborative, the Muscular Dystrophy Association (MDA), the National Council on Independent Living (NCIL), the National Disability Rights Network (NDRN), and the United Spinal Association (United Spinal).

<sup>&</sup>lt;sup>11</sup> A4A is a trade association representing U.S. airlines. IATA is a trade association representing foreign airlines.

Next, the Department proposed that lavatory faucets have controls with tactile information concerning temperature. Alternatively, airlines may comply with this requirement by ensuring that lavatory water temperature is adjusted to eliminate the risk of scalding for all passengers. The proposed rule would also require that automatic or hand-operated faucets shall dispense water for a minimum of five seconds for each application or while the hand is below the faucet. Here, A4A and IATA asked the Department to consider the increased chance of wasted water.

Next, the Department proposed that attendant call buttons and door locks must be accessible to an individual seated in the lavatory. We sought comment on whether to further define "accessible" with respect to call buttons and door locks. For example, we sought comment on whether they should be discernible through the sense of touch and/or through specific means of communication such as braille, or whether airlines should be permitted to develop their own methods of providing accessibility. On this topic, the Consortium for Constituents with Disabilities (CCD)<sup>12</sup> and the Ability Center of Greater Toledo urged the Department to require that buttons and door controls be marked to assist passengers with visual disabilities by using braille, large font, contrasting colors, and embossed symbols.

Next, the Department proposed that lavatory controls and dispensers must be discernible through the sense of touch, and that operable parts of the lavatory must be operable with one hand and not require tight pinching, grasping, or twisting of the wrist. In the preamble to the proposed rule, we noted that such requirements would apply if those accessible operable parts are reasonably available and certificated for the applicable aircraft type. We sought comment on the availability of accessible controls and other lavatory parts that are operable by passengers with disabilities, along with the costs and benefits of requiring such accessible controls. The Ability Center of Greater Toledo indicated that if automatic faucets are not available, lever faucet handles should be

<sup>&</sup>lt;sup>12</sup> CCD is a coalition of disability advocacy organizations including but not limited to the American Council of the Blind, the American Federation of the Blind, and the DREDF.

used as opposed to knobs so that the faucet is operable with one hand and does not require tight pinching. A4A and IATA urged the Department to state in the regulatory text, rather than the preamble, that such requirements would apply if those accessible operable parts are reasonably available and certificated for the applicable aircraft type. They indicated that they did not want to be in the position of filing "waivers" to establish that such parts are not available.

Next, the Department proposed to require the lavatory door sill to provide minimum obstruction for the passage of an OBW, consistent with applicable safety regulations. The Department recognized that door sills must prevent the spillage of water into the aircraft cabin. The provision was intended to promote accessibility without compromising safety. We sought comment on whether the term "minimum obstruction" should be further defined and if so, what that definition should be. The comments that we received on this issue supported the proposed rule as written.

Next, recognizing that adequate toe clearance is necessary to permit the OBW to maneuver into and out of the lavatory, the Department proposed to require airlines not to reduce toe clearance below the current measurements of the lavatory. The Department sought comment on this proposed provision and on whether the term "toe clearance" should be specifically defined. Here, the Open Doors Organization remarked that toe clearance should be clearly identified, "with minimum measurements determined by industry experts." Airlines supported the provision as written. Boeing suggested that the rule be amended to provide that "toe clearance must not be reduced from current measurements *applicable to the selected lavatory existing design*." Airbus suggested that "alternatively, toe clearance reduction can be compensated by design measures to achieve equivalent performance by wheelchair users."

Finally, the Department proposed that airlines must provide a visual barrier, on request, for passengers with disabilities who may require the use of the lavatory but who cannot do so with the door closed. The purpose of the visual barrier is to afford passengers with disabilities a level of

privacy equivalent to that afforded to ambulatory users. We sought comment on the means by which this proposed visual barrier may be installed and operated in an efficient and cost-effective manner, consistent with the privacy interests of passengers entering and using the lavatory. One disability advocate (Christopher Wood, of Flying Disabled) remarked that a curtain would be an inappropriate visual barrier, and that the barrier should be rigid and lockable. In contrast, Boeing urged the Department to clarify that an opaque curtain would be a barrier that provides "substantially equivalent" privacy. A4A and IATA commented that the Department should confirm or clarify that the barrier must provide "substantially equivalent" privacy only in the visual sense. They remarked that DOT should clarify that airlines have flexibility to choose the best barrier for their aircraft, and the barrier does not have to be permanent or physically attached to the aircraft. They also commented that the barrier requirement should only apply to aft-facing lavatories or the SpaceFlex models on Airbus A320 aircraft because barriers on mid or forward lavatories pose safety and security hazards. Spirit asked the Department to clarify that airlines should not be required to change aircraft interiors to accommodate a barrier. Spirit also stated that airlines should be deemed compliant if they use all reasonable efforts to put up an appropriate barrier but cannot.

The Department proposed that lavatories on new aircraft with an FAA-certificated maximum capacity of 125 seats or more should have these accessible features. The Department expressed the view that because aircraft with fewer than 125 seats tend to be shorter-haul aircraft, with shorter flight times, it may not be cost-beneficial to require interior improvements to lavatories on those aircraft. The Department sought comment on this issue.

PVA<sup>13</sup> urged the Department to "fully consider" requiring improved lavatory interiors on smaller aircraft. Open Doors and the Ability Center of Greater Toledo commented that these

<sup>&</sup>lt;sup>13</sup> PVA's comment to the Part 1 NPRM was cosigned by Access Living of Metropolitan Chicago, American Association of People with Disabilities, Autistic Self Addocacy Network, Arc of the United States, Bazelon Center for

requirements should apply to lavatories on aircraft with a capacity of 60 or more, because the improvements do not require expanding the footprint of the lavatory itself. Airlines supported the proposed rule as written, with IATA asking the Department to clarify that the rule applies to newly manufactured aircraft, rather than existing aircraft that are newly acquired by the carrier.

### DOT Response

After carefully considering the comments, the Department has decided to adopt requirements for lavatory interiors mostly as proposed. With respect to grab bars, the rule text provides that they must be "provided and positioned as required to meet the needs of individuals with disabilities." Complying with ADA grab bar standards would be an acceptable way to comply with this provision.

With respect to the provision that "attendant call buttons and door locks must be accessible to an individual seated in the lavatory," we agree with CCD's comment that these elements must be readily usable by passengers with visual disabilities. While the rule does not specifically prescribe how airlines must comply with this provision, we agree that features such as braille, large font, contrasting colors, and embossed symbols are all available means of compliance.

With respect to the provision that "lavatory controls and dispensers must be discernible through the sense of touch, and that operable parts of the lavatory must be operable with one hand and not require tight pinching, grasping, or twisting of the wrist," we agree with airlines' request that they should not be held responsible for obtaining lavatory controls and dispensers that meet those standards if those accessible operable parts are not reasonably available and certificated for the applicable aircraft type. The Department specifies in the rule text that an airline is not responsible for acquiring such lavatory controls and dispensers so long as an airline makes

Mental Health Law, Christopher and Dana Reeve Foundation, the DREDF, Epilepsy Foundation, MDA, NCIL, NDRN, National Multiple Sclerosis Society, and United Spinal.

reasonable efforts to purchase such items and informs the Department of the unavailability despite the airline's reasonable efforts. In these situations, the Department requires airlines to purchase lavatory controls and dispensers that comply with as many requirements as set forth. For example, as the Ability Center of Greater Toledo noted, if automatic faucets are not available, lever faucet handles should be purchased as opposed to knobs so that the faucet is operable with one hand.

We have adopted, as proposed, the requirement that toe clearance not be reduced below current measurements. We have determined that it is not necessary to require that toe clearance should be set with minimum measurements determined by industry experts, because a performance-standard approach still ensures that the OBW is able to maneuver into and out of the lavatory while providing flexibility to airlines in how this is done. The purpose of adequate toe clearance is to permit the passenger to access the lavatory by means of the OBW (for example, partial entry of the OBW in a forward-facing position to facilitate a stand-and-pivot maneuver). Airlines may or may not find it necessary to *increase* toe clearance within the interior of the lavatory to meet this OBW performance standard, depending on the design of their lavatories and OBWs. However, we prohibit airlines from *reducing* existing toe clearance to prevent reduction in accessibility.

Next, we will adopt as written the proposed rule text relating to the visual barrier. The text states that "the aircraft must include a visual barrier that must be provided upon request of a passenger with a disability. The barrier must provide passengers with disabilities using the lavatory (with the lavatory door open) a level of privacy substantially equivalent to that provided to ambulatory users." The barrier does not need to be permanent or physically attached to the

<sup>&</sup>lt;sup>14</sup> See Comment of ACCESS Advisory Committee member Katharine Hunter-Zaworski, Oregon State University, at 3 ("Toe clearance measurements are dependent on the design of the OBW. Prior design work has clearly shown that increasing the toe clearance under cabinets increases the overall accessibility of the lavatory by increasing maneuvering space. The height of the footrest on OBW is dependent on the design of the OBW. The fact that both the OBW and lavatory design affect toe clearance illustrates the need to consider the OBW and lavatory as a system when establishing regulatory requirements on either one.") 15

aircraft to afford that level of privacy. The term "visual barrier" adequately indicates that the privacy is of a visual nature. In sum, we believe that the proposed rule text provides sufficient flexibility for airlines to provide the necessary privacy without compromising safety. We do, however, clarify in rule text that visual barriers are only appropriate as a short-term accessibility improvement. They will not be an appropriate means of providing privacy for the larger lavatories that will be required in the longer term.

Finally, we remain of the view that changes to lavatory interiors should be provided on new single-aisle aircraft with an FAA-certificated maximum seating capacity of 125 or more, because such aircraft tend to operate longer flights where the need for a lavatory access is greatest. As the Regulatory Impact Analysis explains, single-aisle aircraft with at least 125 seats are used for most domestic flights in the United States (67% in 2021) and are increasingly used for longer flights due to improvements in fuel efficiency and range. In response to IATA's comment, we believe that the rule text already adequately conveys that the rule applies to newly manufactured aircraft delivered three years after the effective date of the final rule, rather than existing aircraft that are newly acquired by an airline.

### 2. Retrofitting

### NPRM and Comments

The Department proposed that retrofitting of lavatories on aircraft currently in service would not be required; however, if an airline replaces a lavatory three years or more after the effective date of the rule, airlines would be required to install a lavatory that meets the new requirements. Under this proposal, "a lavatory is not considered replaced if it is removed for specified maintenance, safety checks, or any other action that results in returning the same lavatory into service." For retrofitted lavatories, there would be no requirement to install a visual barrier if doing so would obstruct the visibility of exit signs.

A4A and IATA suggested that DOT clarify in the preamble to the final rule that to trigger the new compliant lavatory, airlines must totally replace the lavatory shell, not only replace limited components. Boeing suggested that the Department clarify that retrofitting would not be required for "any other action that results in returning the same lavatory part number or lavatory with the same design intent into service." Boeing reasoned that "there may be instances where, during a heavy maintenance check, a lavatory is removed and must be replaced with a new lavatory of the same part number or design intent."

### DOT Response

We have decided to adopt the final rule as proposed. The text provides that "a lavatory is not considered replaced if it is removed for specified maintenance, safety checks, or any other action that results in returning the same lavatory into service." In our view, the regulatory text adequately explains what constitutes a replacement lavatory that triggers installation of a compliant lavatory. We reject Boeing's suggestion that retrofitting is not required if the airline wishes to replace an existing lavatory with a new lavatory of the same part number or design intent. To the contrary, the Department is of the view that this is the type of replacement where the airline would be required to install a compliant lavatory.

### 3. Training

### NPRM and Comments

The Department proposed training and information requirements that would apply to airlines operating aircraft with an FAA-certificated maximum capacity of greater than 60 seats (i.e., airlines that do not qualify as small businesses under 14 CFR 399.73). The training and

17

<sup>&</sup>lt;sup>15</sup> We also note that this retrofitting provision, which requires retrofitting on a lavatory-by-lavatory basis rather than a component-by-component basis, is consistent with prior law. *See* now-repealed section 382.63(c) ("You are not required to retrofit cabin interiors of existing aircraft to comply with the requirements of this section. However, if you replace a lavatory on an aircraft with more than one aisle, you must replace it with an accessible lavatory.")

information requirements would apply to the airlines' operations generally, not to the operation of any specific aircraft. These provisions would apply three years after the effective date of the final rule.

Specifically, the Department proposed to require airlines to train flight attendants to proficiency on proper procedures for assisting qualified individuals with disabilities to and from the lavatory from the aircraft seat. <sup>16</sup> Such training would include annual hands-on training on the retrieval, assembly, stowage, and use of the aircraft's OBW, and training regarding the accessibility features of the lavatory. The Department sought comment on whether annual training is necessary, or whether a different frequency of training would be more appropriate.

Stakeholders generally supported this proposal. PVA contended that the rule should include training on "any assembly or modifications to accessibility features" of accessible lavatories. PVA reasoned that certain lavatories, such as the SpaceFlex lavatory installed on certain Airbus aircraft, require flight attendants to remove a partition to create a larger lavatory space. A4A supported the rule as written without the phrase suggested by PVA. A4A also stated that DOT should consider hands-on training on a phased-in schedule, combined with online/video training. A4A recommended that DOT clarify exactly what constitutes hands-on training of interior lavatory features. A4A also argued that it is not feasible to provide hands-on training for retrieval and stowage of OBWs on every aircraft type, so the training should only address following instructions on how to stow and retrieve any type of OBW. Finally, A4A asserted its belief that DOT has not conducted a complete analysis of the costs of hands-on training, but A4A did not supply any such data to assist the Department's analysis. IATA indicated that DOT should

<sup>&</sup>lt;sup>16</sup> Airlines are already required to train their personnel to proficiency on the airline's procedures concerning the provision of air travel to passengers with a disability, including the proper and safe operation of any equipment used to accommodate passengers with a disability. 14 CFR 382.141(a)(1)(ii).

 $<sup>^{17}</sup>$  This phrase was included in the original Term Sheet reflecting the stakeholders' agreement. In the Part 1 NPRM, DOT declined to include this phrase.

clarify specifically whether contractor employees are included, or instead clarify that the rule only applies to flight attendants. IATA expressed the view that annual hands-on training is onerous, and that DOT did not adequately consider the costs of training and constructing lavatory mockups. Spirit expressed safety concerns to the extent that the rule requires flight attendants to lift passengers out of their seats, because many contracts limit flight attendants from lifting more than 50 pounds. Responses to these comments pertaining to the economic analysis can be found in the RIA.

At the OBW public meeting held in December 2021, stakeholders discussed whether to clarify that the training requirements should include the "transfer features" of the OBW. In supplemental comments, A4A and IATA indicated that they supported this amendment. RAA, representing regional airlines, asked the Department to clarify that staff must only be trained with respect to each airline's operational environment.

# DOT Response

After review of the comments, we are adopting training requirements largely as proposed. In our view, annual hands-on training is necessary and appropriate with respect to any OBW that the flight attendant may be required to retrieve, use, and stow. We are also persuaded by PVA's comment to specifically include training on "any assembly or modifications to accessibility features" of a lavatory. Such an addition would make it clear that airlines are required to provide hands-on training with respect to elements such as the movable partition of a SpaceFlex lavatory, because such a partition would be an "accessibility feature" of the lavatory. Also, the training requirements apply only to flight attendants rather than off-aircraft contractors because flight attendants would be the staff that assist passengers in flight to access the lavatory.

We agree with the stakeholders' suggestion to clarify that training must include the "transfer features" of the OBW. In response to Spirit's comment, we note that while the rule would require flight attendants to assist passengers in *transferring* to and from the OBW, and

maneuvering the OBW to and from the lavatory, it does not necessarily require staff to *lift* passengers. In other words, flight attendants are required to assist the person with a disability to transfer to the aisle chair as best as they can but may not be able to physically lift or carry the person even with the use of a sliding board. We have not amended the rule text to clarify that staff must only be trained with respect to each airline's operational environment, because we believe that the rule is already sufficiently clear on that point.

#### 4. Information

### NPRM and Comments

The Department proposed to require airlines to provide information, on request, to qualified individuals with a disability or persons making inquiries on their behalf concerning the accessibility of aircraft lavatories. We proposed that this information must also be available on the carrier's web site, and in printed or electronic form on the aircraft, including picture diagrams of accessibility features in the lavatory and the location and usage of all controls and dispensers. We stated that the intent of this proposal is to provide passengers with accurate information about the types of accessibility features that will be available on the aircraft, so that passengers may plan their flights appropriately.

PVA urged the Department to require that this information be "affirmatively sent" to anyone who self-identifies as using a mobility device or a service animal. In response to the Part 2 NPRM, NDRN noted that many airlines with relatively accessible lavatories in their fleet (such as the Airbus SpaceFlex) do not make clear to passengers whether their specific flight actually includes such a lavatory. RAA, representing regional carriers, urged the Department to reconsider the web site requirement. RAA explained that the vast majority of its airline members are operating carriers that do not market flights or sell tickets. RAA explained that its members operate flights through agreements with larger mainline partners (marketing carriers) who are responsible for providing flight information to the public. RAA contended that because the

traveling public rarely visits RAA members' web sites, the more appropriate rule would be to apply the information requirements to marketing carriers.

### **DOT** Response

On further review of this provision, and after reviewing the comments, we believe it is appropriate to clarify the Department's intent with respect to information on accessibility of aircraft lavatories. First, rather than broadly requiring airlines to provide information regarding "the accessibility of aircraft lavatories," the final rule specifies that the information must include, at a minimum, information about the accessibility features of aircraft lavatories that are set forth in section 382.63(f) (relating to lavatory interiors). This change is consistent with the proposed requirement that the information must include picture diagrams of accessibility features in the lavatory and the location and usage of all controls and dispensers.

We also note that, consistent with the current requirements of Part 382, this information must be flight-specific to the extent possible. Specifically, a different provision of Part 382 states that carriers must provide, on request, certain information "concerning the accessibility of the aircraft expected to make a particular flight," including "whether the aircraft has an accessible lavatory." Under current rules, that information "must be specific to the aircraft you [airlines] expect to use for the flight unless it is unfeasible for you to do so (e.g., because unpredictable circumstances such as weather or a mechanical problem require substitution of another aircraft that could affect the location or availability of an accommodation)." In keeping with current rules, this final rule requires airlines to provide the required information regarding the accessibility of lavatory features on a flight-specific basis. 19

We do find persuasive RAA's comment that the web site requirement should not apply to

<sup>&</sup>lt;sup>18</sup> 14 CFR 382.41(e). We have amended section 382.41(e) to add a cross-reference to the provisions of this final rule.

<sup>&</sup>lt;sup>19</sup> While the rule, as written, does not require airlines to provide information regarding the aircraft's OBW, we encourage airlines to do so.

operating carriers that do not market flights or sell tickets. In situations where the operating and marketing carrier are different entities, the operating carrier is the airline that flies the aircraft while the marketing carrier is the airline that sells the ticket and generally provides flight-specific information to the public. Under this rule, marketing carriers will have the responsibility to provide information on their web site concerning the accessibility of aircraft lavatories. We have amended the final rule accordingly.

### 5. International Symbol of Accessibility

#### NPRM and Comments

The Department proposed to require airlines to remove the International Symbol of Accessibility from new and in-service aircraft that are equipped with lavatories that are not capable of facilitating a seated independent transfer (i.e., a transfer from an OBW to the toilet seat without requiring the use of an assistant). In the Part 1 NPRM, we noted that removal of the symbol is the only proposed requirement that would apply to existing in-service lavatories, and to lavatories on aircraft with FAA-certificated maximum capacity of fewer than 125 seats. We noted that the goal is to provide greater consistency regarding the use of the symbol.

Stakeholders generally supported this provision. Airlines, while in favor of the rule, commented that DOT had not adequately considered the cost of such removal (without providing data to assist in the Department's analysis).

#### **DOT** Response

We adopt the proposal as written. In addition, we are requiring airlines to *include* the International Symbol of Accessibility if the lavatory *is* capable of facilitating a seated independent transfer. As noted above, the Department's intent is to provide greater consistency as to the meaning of the symbol as it applies to lavatories on single-aisle aircraft. Accordingly, it is appropriate to specify when the symbol must be applied, as well as when it must be removed. We

note that at present, the additional cost of this provision will be relatively low, as few lavatories on single-aisle aircraft are capable of facilitating a seated independent transfer. As fully accessible lavatories become more commonplace, we expect the proper use and application of the symbol to grow.

# 6. Procedures for Sharps and Bio-Waste

### NPRM and Comments

The Department proposed to require airlines to develop and, on request, inform passengers about their procedures for disposing of sharps and bio-waste. The Department reasoned that as lavatories on single aisle aircraft become more accessible, they may be used increasingly as a location where passengers with disabilities may perform personal functions which require the disposal of sharps and bio-waste. Like the information and training requirements, the proposed rule would apply to airlines that operate aircraft with a maximum FAA-certificated capacity of more than 60 seats.

All responses to this proposal were in support. A4A and IATA asked the Department to clarify that airlines are not required to provide special facilities or equipment for disposal.

### **DOT Response**

We adopt the proposal as written. The intent of the rule is to require airlines to develop procedures for sharps and bio-waste disposal and to inform passengers of those procedures on request. The rule does not require any specific type of disposal procedures; similarly, the rule does not require airlines to provide special facilities or equipment for disposal.

#### 7a. OBW Features

#### NPRM and Comments

As a first step in developing proposed OBW standards for the Part 1 NPRM, the

Department asked the Access Board to develop advisory guidelines for technical assistance. The Department then adapted the Access Board's design standards into more flexible performance standards. The Department proposed that airlines could use the Access Board's design standards as one method of compliance. In the Part 1 NPRM, the Department proposed that the OBW have the following features:

- (1) it must be maneuverable both forward and backward through the aircraft aisle by an attendant;
- (2) it must be maneuverable in a forward orientation partially into at least one aircraft lavatory to permit transfer from the on-board wheelchair to the toilet;<sup>20</sup>
- (3) it must be maneuverable into the aircraft lavatory in a backward orientation to permit positioning over the toilet lid without protruding into the clear space needed to completely close the lavatory door (an over-the-toilet, or "OTT" feature);
- (4) the height of the OBW seat must align with the height of the aircraft seat so as to facilitate a safe transfer between the OBW seat and the aircraft seat;
- (5) it must have wheels that lock in the direction of travel, and that lock in place so as to permit safe transfers, with any other moving parts being capable of being secured such that they do not move while the occupied OBW is being maneuvered;
- (6) when occupied for use, it shall not tip or fall in any direction under normal operating conditions; (7) it must have a padded seat and backrest, and must be free of sharp or abrasive components;
- (8) it must have arm supports that are sufficiently structurally sound to permit transfers and repositionable so as to allow for unobstructed transfers; adequate back support; torso and leg restraints that are adequate to prevent injury during transport; and a unitary foot support that provides sufficient clearance to traverse the threshold of the lavatory and is repositionable so as to

<sup>&</sup>lt;sup>20</sup> The goal of this requirement is to accommodate passengers who can enter the lavatory using a "stand-and pivot" maneuver. Specifically, the passenger would approach and partially enter the lavatory while seated on the OBW, then stand and pivot 180 degrees to the toilet, at which point OBW would be removed and the door would be closed.

allow for unobstructed transfer, with all restraints operable by the passenger; and (9) it must prominently display instructions for proper use.

As noted above, the Department then held a public meeting to solicit additional comment and data regarding OBW standards. At the meeting, a representative of PVA expressed support for the OBW provisions set forth in the Part 1 NPRM but indicated that they should be expressed as design standards rather than performance standards.

A4A and IATA expressed support for many of the Department's OBW proposals. However, they expressed significant design, cost, and safety concerns regarding the Department's proposal that the OBW be maneuverable into the lavatory in a backwards position such that it would be positioned over the closed toilet seat (the OTT feature). A representative of the Volpe Center, which performed the regulatory analysis on the Part 1 NPRM, asked questions of the meeting attendees about the feasibility and cost of manufacturing OBWs with an OTT feature. This individual noted that the OTT feature could be implemented either by (1) manufacturing different OBWs to accommodate different toilet seat heights, or (2) by manufacturing a single adjustable OBW that accommodates multiple toilet seat heights. This commenter noted that neither product exists on the market today, and that the cost and feasibility of producing either design is largely unknown. An engineer from the University of Hamburg, which developed the original prototype of the OTT design, indicated that an OBW with a height fixed to the toilet lid may be problematic in terms of transfers to and from the aircraft seat, while adjustable-height OBWs pose different design challenges.

In supplemental comments following the OBW meeting, PVA again expressed support for the proposed design features, but urged the Department to adopt design standards. A4A and IATA expressed strong support for all of the proposed OBW design features, except for element (3) (the OTT feature). They urged the Department to withdraw this proposal based on safety and feasibility concerns. Specifically, they argued that the Department lacked data from which to

standards. They expressed concerns that the design may add weight, complexity, and safety hazards to the OBW, particularly if the OTT design is adjustable to fit over toilet lids of various sizes. They also noted that the Department has limited data from which to estimate the costs of designing and manufacturing such a device. Airlines urged the Department to continue to consult with stakeholders regarding the OTT feature, but not to impose the requirement in a final rule.

Airbus commented that it generally supported the Department's performance standards. However, Airbus expressed concern that a fully compliant OBW may be too large to be transported down the aircraft aisle or into the lavatory, or stowed in existing spaces. Airbus also noted that the OTT feature would not be necessary on its accessible Airbus A220 lavatories, because that lavatory was designed to facilitate an independent transfer using the aircraft's existing OBW.

The Department proposed that these new OBW features should be required on new single-aisle aircraft with a maximum FAA-certificated capacity of 125 seats or more. In this way, the OBW provisions mirror the provisions relating to the accessible features of lavatory interiors.

Again, the Department reasoned that larger aircraft tend to conduct longer flights where the need to access the lavatory may be greatest.

PVA urged the Department to "seriously consider" expanding these OBW standards to smaller aircraft. The Ability Center of Greater Toledo agreed, noting that individuals may have the need to access lavatories on shorter flights as well. A4A urged the Department not to expand OBW standards to smaller aircraft unless the Department engaged in a full consultation process to determine feasibility, safety, and costs. A4A noted that smaller aircraft have smaller aisles, smaller lavatory entrances, smaller stowage spaces, and fewer crew resources.

#### **DOT Response**

After review of the Part 1 NPRM comments, the information gathered at the OBW public

meeting, and the post-meeting supplemental comments, we have decided to finalize these OBW provisions largely as proposed, with one important amendment. We remain of the view that performance standards provide meaningful guideposts for safety and accessibility while providing stakeholders flexibility and the opportunity to innovate in how to meet those standards. We also remain of the view that these new OBW standards should apply to new aircraft with a maximum capacity of 125 seats or more, because those aircraft tend to fly longer routes where the need for lavatory use in flight is greatest.

However, we have reconsidered the proposal to require that the OBW must be maneuverable into the aircraft lavatory in a backward orientation to permit positioning over the toilet lid without protruding into the clear space needed to completely close the lavatory door (the OTT requirement above). The purpose of the proposed OTT requirement was to assist passengers with significant mobility impairments who cannot use the "stand-and-pivot" maneuver to enter the lavatory. The OTT requirement was intended to allow such passengers full access to the lavatory space while still seated on the OBW to permit non-toileting functions such as catheterization.

We recognize that members of the ACCESS Advisory Committee saw and used a simple prototype OBW with an OTT feature developed by the University of Hamburg. On the other hand, since the development of that prototype in 2016, we have seen no evidence that it is feasible to manufacture a fully compliant OBW with an OTT feature. The costs of developing such a device remain unknown. We also share stakeholders' concerns about the complexity and safety of such a device, particularly if it is adjustable to accommodate various aircraft seat heights and toilet seat heights. Accordingly, we have eliminated this requirement.

We remain concerned, however, about lavatory accessibility for passengers who are unable to use the stand-and-pivot maneuver. We also recognize that an OTT design may not be the only method for accommodating such passengers. For example, certain Airbus SpaceFlex lavatories are large enough to accommodate an OBW inside the lavatory space without the use of an OTT

design. Accordingly, rather than specifically mandating an OTT design, we have adjusted this requirement to broadly state that the OBW must be maneuverable into the aircraft lavatory without protruding into the clear space needed to completely close the lavatory door. If the lavatory itself is not large enough to accommodate an OBW without an OTT feature, and an OBW with an OTT feature is not available, airlines must provide the use of a visual barrier on request to enable the passenger to perform lavatory functions in privacy (see section 7c, below). A visual barrier would not be an acceptable means of compliance for lavatories that are required to be expanded beyond current measurements. As for comments to expand the OBW standards to smaller aircraft, the Department plans to address this issue as part of its rulemaking on Ensuring Safe Accommodations for Air Travelers with Disabilities Using Wheelchairs.<sup>21</sup>

# **7b. OBW Stowage**

# NPRM, Public Meeting, and Comment

The Department proposed that airlines are not required to expand the existing FAA-certificated on-board wheelchair stowage space of the aircraft, or to modify the interior arrangement of the lavatory or the aircraft, in order to comply with the OBW provisions of the rule. During the OBW public meeting, Airbus and Boeing provided information regarding available stowage spaces.

In supplemental comments to the OBW public meeting, PVA commented that because OBWs serve a critical function with respect to lavatory accessibility, the final rule "should require an air carrier to use any FAA-approved OBW stowage location, not just its preferred or existing stowage location." Airlines supported DOT's proposal as written. Spirit contended that if a compliant OBW does not fit in the existing space, then airlines should not be required to provide such an OBW. Spirit also argued that airlines should not be required to stow the OBW in an

<sup>&</sup>lt;sup>21</sup> RIN 2105-AF14; https://www.reginfo.gov/public/do/28gendaViewRule?pubId=202210&RIN=2105-AF14

alternate location such as an overhead bin, this would limit bin space and raise prices for consumers. They also expressed safety concerns for flight attendants if the new OBW weighs more than 50 pounds.

The Transport Workers Union of America, AFL-CIO, expressed concerns regarding the safe operation of OBWs while in flight, noting that it would be unsafe to operate them unless the aircraft is at a safe cruising altitude. They asked DOT to provide guidance to the public about when OBWs can be used.

### DOT Response

We remain of the view that airlines should not be required to *expand* the existing FAA-certificated on-board wheelchair stowage space of the aircraft, or to *modify* the interior arrangement of the lavatory or the aircraft, in order to comply with the OBW provisions of the rule. These provisions are consistent with the overarching premise that short-term solutions should not require modification of aircraft interiors. On the other hand, we agree with PVA that we should amend the final rule relating to stowage.

We recognize the possibility that newly compliant OBWs may not fit within pre-existing OBW stowage spaces. The rule as proposed could be reasonably interpreted to read that if the new OBW does not fit within pre-existing OBW stowage spaces, then airlines would not be required to supply them at all. We agree with PVA that this is unacceptable. Compliant OBWs will include important new safety and accessibility features. Accordingly, the Department is requiring airlines to stow the OBW in any other available stowage space where it can be safely accommodated (e.g., a stowage closet or an overhead bin). Airlines are also required to seek any necessary approval from the FAA to stow the OBW in this alternate location. We also note that all ACAA requirements are subject to safety restrictions, including the use of the OBW. We have added rule text clarifying this point. Airline training should also make it clear to relevant staff that OBW stowage spaces does not affect the options for individuals with disabilities to stow personal

wheelchairs on board.

# 7c. Potential Unavailability of Fully Compliant OBWs

### NPRM, Public Meeting, and Comment

In the Part 1 NPRM, the Department recognized that airlines typically rely on third parties to develop and manufacture OBWs, and that an OBW meeting all of the Department's proposed requirements does not currently exist. Accordingly, the Department proposed that airlines would not be responsible for the failure of third parties to develop and deliver an OBW that complies with a required feature described above, so long as the airline notifies and demonstrates to the Department that an OBW meeting that requirement is unavailable despite the airline's reasonable efforts.

PVA generally agreed with this proposal but argued that there should be a "higher standard of proof." A4A strongly supported this provision, noting that extensive design and testing is necessary to determine whether an OBW meeting DOT's new standards can be made commercially available and safely stowable on-board the aircraft.

### **DOT** Response

After review of the comments and on further consideration, the Department has decided to amend the final rule in certain material respects. First, the final rule clarifies that airlines must acquire an OBW with as many required features as are available, even if no OBW is available that meets *all* of the required standards. Next, the final rule relieves airlines of the burden of proving a negative: i.e., *demonstrating* that an OBW with a required feature is unavailable despite the airline's reasonable efforts. The final rule still requires airlines to make reasonable efforts to purchase OBWs with all required features. If an OBW with a required feature is unavailable despite reasonable efforts, airlines must *inform* the Department of that fact.

Finally, the Department recognizes that many OBWs may not be maneuverable in the

aircraft lavatory as required without protruding into the clear space needed to completely close the lavatory door (e.g., because the OBW is not of an OTT design and/or because the lavatory itself is too small to allow full entry of the OBW). The final rule specifies that if airlines cannot provide an OBW meeting that requirement, then they must provide the use of a visual barrier on request to enable the passenger to perform lavatory functions in private. The intent of this rule is to provide an option for passengers who cannot enter the lavatory by performing a stand-and-pivot from the OBW. The Department anticipates that while such passengers may not be able to fully enter the lavatory, they may be able to perform non-toileting functions such as catheterization in the lavatory area behind a visual barrier.

### 7d. Replacement of OBWs

#### NPRM, Public Meeting, and Comment

The Department proposed that if an airline replaced an OBW on aircraft with an FAA-certificated maximum seating capacity of 125 or more on a date later than three years after the effective date of the final rule, then the airline must replace it with an on-board wheelchair that meets the new OBW standards. This proposal mirrors the requirement (described above) relating to retrofitting and replacement of aircraft lavatories themselves.

A4A commented that airlines should be permitted to replace a broken or worn-out OBW with a new OBW of the same part number, and that the new standards should be required only if airlines adopt a new OBW design. Airbus commented that relocating the OBW stowage space should not count as replacing the OBW.

#### **DOT** Response

We are adopting the proposed rule as written. As written, airlines are provided a three-year time frame to acquire compliant OBWs. If an airline replaces an OBW after that date, it is reasonable to require airlines to provide a new OBW that meets DOT's updated safety and accessibility standards, because such OBWs will presumably be available and on the market by

that time. This rule is also consistent with the general rule, found at 14 CFR 382.71(b), which states that airlines must ensure that any replacement or refurbishing of the aircraft cabin or its elements does not reduce the accessibility of that element to a level below that specified for new aircraft in Part 382.

#### 8. Prohibition on Reducing Existing Lavatory Footprint

### NPRM and Comments

In the Part 1 NPRM, the Department solicited comment on whether to prohibit airlines from reducing lavatory footprints below their current size. The Department sought comment and data on the extent to which the footprint of aircraft lavatories on single-aisle aircraft has been reduced in recent years, and the effect that any such reduction has on accessibility for passengers with disabilities.

Three disability advocacy organizations (PVA, the National Multiple Sclerosis Society and Flying Disabled) urged the Department to prohibit further reduction of lavatory footprints. PVA argued that such a provision would be consistent with the spirit of Part 382.<sup>22</sup> A4A and IATA urged the Department not to adopt such a proposal. A4A contended that the Department does not have baseline data on current lavatory footprints, and without that data, it cannot calculate the cost of the proposal (which may be significant). IATA argued that if the lavatory met performance standards, airlines should be permitted to select a footprint that is best suited to their operations. Boeing supported the Department's suggestion, reasoning that maintaining one lavatory on single aisle aircraft at current size would not further limit accessibility to the traveling public as a whole. Like A4A, Boeing noted that clarity on starting lavatory measurements would be necessary as there are a variety of different designs in the industry.

<sup>&</sup>lt;sup>22</sup> Specifically, PVA cited 14 CFR 382.71, which states, "You must ensure that any replacement or refurbishing of the aircraft cabin or its elements does not reduce the accessibility of that element to a level below that specified for new aircraft in this part."

#### **DOT** Response

After reviewing the comments on this issue, we do not have sufficient data to prohibit airlines from further reducing the footprint of lavatories at this time, though this remains an area of interest given that the small size of current lavatories is one significant reason that they are largely inaccessible today. DOT may revisit this issue in a future rulemaking.

#### 9. Effective Date

Airlines are required to comply with all of the short-term accessibility improvements discussed above three years after the effective date of this final rule. This time frame will allow airlines, aircraft manufacturers, OBW manufacturers, and other stakeholders sufficient time to develop accessible lavatory interiors, training programs, accessibility information, compliant OBWs, and appropriate OBW stowage space.

#### II. LONG-TERM IMPROVEMENTS

#### A. Overview

The Department addressed long-term improvements in the Part 2 NPRM. The Department proposed to require that airlines expand the size of at least one lavatory on new single-aisle aircraft with an FAA-certificated maximum capacity of 125 seats or more. The most significant issue in the NPRM was the time frame for implementation. The Department proposed that the rule would apply to new single-aisle aircraft ordered 18 years after the effective date of the final rule, or delivered 20 years after the effective date of the final rule (18/20).<sup>23</sup> The Department proposed

<sup>&</sup>lt;sup>23</sup> In this document, two numbers separated by a slash refers to a single implementation period. For example, "15/17" would mean that the rule applies to new single-aisle aircraft ordered 15 years after the effective date of the final rule and delivered 17 years after the effective date of the final rule.

this time frame because it tracked the ACCESS Advisory Committee's agreement from 2016.<sup>24</sup> At the same time, the Department recognized the slow pace of this proposed implementation period, particularly in light of the roughly six-year delay between the date of the Committee's agreement (in 2016) and the issuance of the Part 2 NPRM (in 2022). The Department sought comment and data on whether and how to accelerate this implementation period for the final rule.

The comment period closed on May 28, 2022. Broadly speaking, disability rights organizations supported the rule but also urged a faster implementation period. For example, PVA argued that the Department should subtract the six-year delay in issuance of the rulemaking, and therefore that the requirement for larger lavatories should apply to aircraft ordered 12 years after the effective date of the final rule or delivered 14 years after the effective date of the final rule (12/14). The MDA urged the Department to adopt a 10-year maximum implementation. United Spinal did not propose a specific time frame but urged the Department to act "with all deliberate speed." Individual commenters universally supported the rule but urged the Department for a faster implementation period. Certain advocates also urged the Department to apply the rule to smaller aircraft.

Airlines supported the proposal as written. A4A/IATA argued that if the Department reduced the implementation period, (1) it should be to 15/17, (2) DOT must fully explain the basis, data, and information that justifies its deviation from the original proposal, and (3) DOT must allow stakeholders to submit supplemental comment. Airbus and Boeing supplied technical comments, with Boeing also supporting the implementation time frame as written. DOT's responses to these and other significant issues raised by the commenters are provided below.

<sup>&</sup>lt;sup>24</sup> As noted above, during the ACCESS Advisory Committee process, the Department publicly committed that if the Committee reached consensus, the Department would prepose a rule tracking that agreement to the extent possible.

#### **B.** Section-by-Section Analysis

# 1. Applicability: Aircraft Size

#### NPRM and Comments

The Department proposed that larger lavatories would be required on new single-aisle aircraft with an FAA-certificated maximum capacity of 125 seats or more. The Department reasoned that such aircraft operate a significant percentage of longer-haul flights, where the inflight need for a lavatory would be greatest. The Department sought comment on the costs and benefits of extending the rule to smaller aircraft. The Department noted that the Committee considered, but rejected, a rule that would require accessible lavatories based on the length of the flight as opposed to the size of the aircraft. The Committee also rejected other approaches such as phased or tiered approaches to full accessibility. Nevertheless, the Department sought comment on these issues as well.

Two organizations (Open Doors and Disability Rights PA) urged the Department to apply the rule to all new aircraft. Airlines supported the proposal as written, contending that this standard captures the near-total volume of U.S. passenger traffic. A4A and IATA further stated that aircraft with fewer than 125 seats are only used on short flights, that requiring accessible lavatories on smaller aircraft would impose substantial costs that may increase fares and potentially disrupt service to smaller communities, and that there is no technical solution for accessible lavatories on these smaller aircraft.<sup>25</sup> Spirit Airlines also supported the rule as written, and further argued that it should apply on a fleet-wide basis instead of a route-by-route basis. Similarly, RAA supported the 125-seat standard and preferred the seating-capacity approach instead of a scheduled-duration approach.<sup>26</sup> Boeing commented that the proposed standard is

<sup>&</sup>lt;sup>25</sup> Comment of A4A/IATA at 16-17.

<sup>&</sup>lt;sup>26</sup> Comment of RAA at 2-3.

reasonable, noting that smaller aircraft are operated on shorter routes, there is no current technical solution for smaller aircraft, and lowering the threshold would increase compliance costs. Airbus did not comment.

#### **DOT Response**

The Department is finalizing this aspect of the proposal as written. We recognize that determining a reasonable threshold for larger accessible lavatories will always involve a measure of judgment. On balance, the Department continues to hold the view that a 125-seat threshold is reasonable because it covers a substantial portion of lengthy flights. As we explain in the RIA, we chose not to extend the rule to aircraft with 100 to 124 seats because aircraft of this size are increasingly rare, leading to uncertainty about the benefits of extending the rule to such aircraft. In contrast, flights on aircraft of 125 seats or more made up 58% of all flights and 90% of mediumand long-haul flights in 2021. We do recognize that in general, as future aircraft become more efficient, smaller aircraft may increasingly operate longer flights; if so, the Department may revisit this issue in the future. Finally, after reviewing the comments, we find essentially no support for alternative standards of applicability such as scheduled flight length, or for tiered/phased approaches to implementing fully accessible lavatories.<sup>27</sup>

# 2. Lavatory Size: Accommodation of Passenger and Attendant

#### NPRM and Comments

The Department proposed that for applicable aircraft, airlines must include at least one lavatory of sufficient size to (1) permit a qualified individual with a disability equivalent in size to

<sup>&</sup>lt;sup>27</sup> A4A and IATA stated that public comment is essential to any further adjustments to the implementation and further suggests that it would lead to a lack of consistency for no clear benefit. They specifically oppose different phases of assisted vs. unassisted transfer, a view shared by Boeing, who added that such an idea was specifically rejected in the negotiated rulemaking. Passenger-advocacy organizations also opposed additional phases or tiers, largely because they find them unnecessary. NDRN commented that the current rulemaking supports attendant-accommodating lavatories without further phases or tiers. United Spinal Association and PVA shared similar views that there should not be further tiering or phasing, but if such is implemented, it should not increase the implementation timeframe.

a 95<sup>th</sup> percentile male to approach, enter, maneuver within as necessary to use all lavatory facilities, and leave, by means of the aircraft's on-board wheelchair, in a closed space that affords privacy equivalent to that afforded to ambulatory users; and (2) permit an assistant equivalent in size to a 95<sup>th</sup> percentile male to assist a qualified individual with a disability, including assisting in transfers between the toilet and the aircraft's on-board wheelchair, within a closed space that affords privacy equivalent to that afforded to ambulatory users.

NDRN commented that the 95<sup>th</sup> percentile standard was preferable to the non-specific standard set forth in the rule for twin-aisle aircraft lavatories, which are inconsistent in terms of accessibility. A4A and IATA supported the proposal, noting that it tracked the Committee's agreement. Airbus supported the proposal, noting that the 95<sup>th</sup> percentile overweight/tall U.S. male is an appropriate reference measure for an assisted transfer within the limited space of a lavatory.<sup>28</sup> Boeing argued that the 95<sup>th</sup> percentile standard should be placed in guidance, rather than regulatory text, noting that DOT took this approach with respect to the size of twin-aisle aircraft. Boeing also urged the Department to add that airlines may use curtains to create the closed space that affords privacy equivalent to that afforded to ambulatory users.

# **DOT** Response

After reviewing the comments, the Department is finalizing the proposed rule as written. We have chosen to place size standards in the rule text, rather than in guidance, because those standards are necessary to ensure that the lavatory is of sufficient size to accommodate larger passengers and larger attendants alike. We have not adopted Boeing's suggestion that in the long term, airlines should be permitted to use curtains to help create a substantially equivalent privacy space. Such visual barriers may be necessary in the short term when lavatories are not required to

<sup>&</sup>lt;sup>28</sup> Airbus also asked if the Department truly intended to require a space that accommodates both a 95<sup>th</sup> percentile male passenger *and* a 95<sup>th</sup> percentile male attendant at the same time, noting that this "worst case scenario" would be extremely rare. We believe that the rule text is sufficiently clear regarding the intended lavatory size and agree that the scenario described by Airbus is likely to be rare.

be expanded beyond current measurements. However, such a solution would be inappropriate in the long term, given that the Department is providing airlines and aircraft manufacturers ample time to engineer and develop fully compliant solutions.

# 3. Lavatory Interiors

### NPRM and Comments

In the Part 2 NPRM, the Department included for reference its proposed rules from the Part 1 NPRM relating to lavatory interiors. The Department did not propose new rules for lavatory interiors that would apply to the larger lavatories described in the Part 2 NPRM.

PVA noted that passengers with disabilities should be able to access flush controls, call buttons, the lavatory door, the sink, paper towels, and trash dispenser from a seated position. A4A supported the proposal as written. Boeing noted that larger lavatories may produce situations where certain controls may not be reachable from a seated position (on the toilet or on the OBW).

#### **DOT** Response

The Department is adopting the provisions regarding lavatory interiors as described above in the discussion of the Part 1 NPRM. In response to PVA's comment, we anticipate that passengers with disabilities will be able to access, from a seated position, the components that they described.

# 4. Implementation: Effective Date and Retrofitting

### NPRM and Comments

In keeping with its commitment to the ACCESS Advisory Committee, the Department proposed to require accessible lavatories on new single-aisle aircraft that are: (1) ordered 18 years after the effective date of the final rule; (2) delivered 20 years after the effective date of the final rule; or (3) part of a new type-certificated design filed with the FAA or a foreign carrier's safety

authority one year after the effective date of the final rule.<sup>29</sup> The Department also proposed that airlines not be required to retrofit existing aircraft to install larger lavatories. This proposal was consistent not only with the ACCESS Advisory Committee's agreement, but also with existing Part 382.<sup>30</sup> The Department asked extensive questions regarding whether and how to accelerate this time frame for the final rule, along with the costs and benefits of doing so.

As noted above, disability advocates argued for a more accelerated implementation period. PVA and NDRN stated that the Department should deduct the 6-year gap between the Committee's agreement and the Part 2 NPRM, for a current implementation period of 12/14 rather than 18/20. They argued that this reduction would meet the parties' reasonable expectations at the time the agreement was formed. The MDA urged the Department to adopt a 10-year maximum implementation. United Spinal did not propose a specific time frame but urged the Department to act "with all deliberate speed," including a requirement for retrofitting when an aircraft is taken out of service. Similarly, advocacy organizations including AARP, FlyersRights, Disability Rights Pennsylvania, Flying Disabled, and Dementia-Friendly Airports Working Group all argued for significantly accelerated implementation. Some urged retrofitting, and others noted that DOT required accessible lavatories on twin-aisle aircraft within only two years from the date of that rule. FlyersRights argued that the larger lavatories should also be required on aircraft manufactured pursuant to *amended* type certificates filed three years after the effective date of the

<sup>&</sup>lt;sup>29</sup> Most newly manufactured aircraft are based on an *existing* type-certificated design that has already been filed with the FAA. The intent of the "*new* type-certificated design" provision is to require fully accessible lavatories as part of any newly designed aircraft, so long as the design is filed more than one year after the effective date of the rule. A4A and IATA asked the Department to clarify that this provision "is referring to a clean sheet design (i.e., new TCDS and pursuant to 14 C.F.R. § 21.19), not aircraft that are already type certificated (e.g., B737-MAX) with amended type certification programs." We believe that the rule is adequately clear that this provision refers to clean sheet designs.

<sup>&</sup>lt;sup>30</sup> See 14 CFR 382.63 ("You are not required to retrofit cabin interiors of existing aircraft to comply with the requirements of this section. However, if you replace a lavatory on an aircraft with more than one aisle, you must replace it with an accessible lavatory.")

<sup>&</sup>lt;sup>31</sup> Comment of United Spinal at 2 ("DOT should require accessible lavatories be installed in all single-aisle aircraft that are taken out of service for any other changes to the cabin.")

final rule.

Airlines supported the proposed rule as written. A4A/IATA posited that the six-year delay identified by PVA was a result of the Department's choices and not those of the stakeholders.

A4A/IATA opposed any reduction in the rule's proposed timing and asked for a full explanation of DOT's justification for any accelerated implementation, as well as additional public comment if such a reduction would occur. With those qualifications, A4A/IATA indicated that it was open to supporting a 15/17 implementation period. Spirit Airlines described the timeline as proposed by the Department as "reasonable."

As for aircraft manufacturers, Boeing asked the Department to honor the timeline of the negotiated rulemaking.<sup>32</sup> Airbus did not comment on the implementation period but noted that many of its aircraft are already accessible, with more on the way to delivery.

# **DOT Response**

After careful consideration of all of the comments, the Department concludes that a faster implementation period is both necessary and appropriate. First, in our view, requiring accessible lavatories on an 18/20 implementation period would penalize passengers with disabilities and other stakeholders who would benefit from the rule, for the Department's own delay in finalizing the rule. The Department *proposed* 18/20 years for the implementation period to honor the promise to stakeholders during the negotiated rulemaking. However, given the technical feasibility of having accessible lavatories earlier and the Department's position that accessible toileting is a basic human need and right, the Department determined that it is unacceptable to have individuals with disabilities wait another 18/20 years after the effective date of the rule. In our view, reducing the implementation period by six years would be the *minimum* that the Department could do to maintain the reasonable expectations of the stakeholders as expressed in the 2016 ACCESS

<sup>&</sup>lt;sup>32</sup> Boeing provided proprietary information regarding the options that it has explored and is currently exploring for providing accessible lavatory solutions, along with the advantages and disadvantages of those options as viewed by its airline customers.

40

Advisory Committee's Term Sheet. Given the significance of accessible lavatories to passengers with disabilities and other stakeholders, it is also appropriate to do more than the bare minimum. The Department is mandating implementation on the fastest basis that is both realistic and economically feasible. After reviewing the record of the ACCESS Advisory Committee and the comments received to the NPRM, we believe that a 10/12 implementation period for newly-manufactured aircraft is realistic from a technological, engineering, and manufacturing perspective. This is particularly true given that the core lavatory specifications found in this final rule are essentially unchanged from the 2016 Term Sheet and the 2021 NPRM. In short, we are confident that technical solutions do exist, and can be implemented within a 10/12 time frame. This time frame also allows airlines and manufacturers time to satisfy existing orders and deliveries without interruption.

So far as we can determine, the primary driver of industry's concern is cost, in the form of lost revenue from removal of seats and/or impingement of a larger lavatory into space that could be used for galleys (food and beverage service).<sup>33</sup> As we explain in our Regulatory Impact Analysis, those costs may be recoverable in the form of higher air fares. Moreover, while the Department could reduce those burdens by extending the implementation period, any such extension will necessarily impose burdens on passengers with disabilities who will be forced to wait longer to enjoy the basic human dignity of being able to use a lavatory on a long-haul flight.

Our economic analysis reflects that with a 10/12 implementation period, that net revenue impacts to airlines will range from a loss of 1.6 percent to a gain of less than one percent. Airfare increases could range from zero to 3 or 4 percent of baseline airfares, depending on the ability of

<sup>&</sup>lt;sup>33</sup> During the Access Advisory Committee proceedings, industry stakeholders expressed concern about mandating accessible lavatories in the middle of an aircraft's ordering/manufacturing cycle, and maintaining fleet commonality, (i.e., realizing the considerable cost savings that arise from having predictable features among an aircraft's fleet). *See*<a href="https://www.transportation.gov/office-general-counsel/negotiated-regulations/3rd-plenary-meeting-%E2%80%93-presentation-airplane-life-cycle">https://www.transportation.gov/office-general-counsel/negotiated-regulations/3rd-plenary-meeting-%E2%80%93-presentation-airplane-life-cycle</a>. We have not seen evidence that a 10/12 implementation period would significantly impact either of these concerns.

airlines to pass on increased costs through increases in airfare. These are relatively small impacts considering access to toilets is a basic human need and should be available to all.

We have considered the even more aggressive solution of retrofitting, but continue to hold the view that retrofitting should not be required because of cost uncertainties. Similarly, we have not required accessible lavatories on amended type-certificated aircraft earlier than 10/12 because this could again require either retrofitting or early replacement of existing aircraft, which would add significant costs or may not be technically feasible due to the production cycle of new aircraft. We will continue to require accessible lavatories on new type-certificated (clean sheet) designs filed with the FAA or a foreign safety authority more than 1 year after the effective date of the rule. 34

#### III. SEVERABILITY

The overall purpose of this rule is to improve accessibility of lavatories on single-aisle aircraft in both the short term and the long term. The short-term elements include improvements to lavatory interiors, information requirements, training requirements, required procedures for sharps and biowaste, removal of the International Symbol of Accessibility, improvements to the aircraft's OBW, and a requirement for a visual barrier under certain circumstances. All of these measures are designed to improve accessibility in the time period before the size of the lavatories themselves must be expanded. The Department finds that these short-term improvements can operate independently of the long-term measures to increase the size of the lavatory. Moreover, while the short-term measures form a suite of improvements, they can each function separately from each other. For example, the required standards for an accessible OBW can function separately from the required improvements to existing lavatory interiors.

<sup>&</sup>lt;sup>34</sup> During the Access Advisory Committee proceedings, stakeholders learned that it took Bombardier approximately 20 years to manufacture its C-series aircraft from a clean-sheet design that included an accessible lavatory. It does not logically follow, that it necessarily takes 20 years to implement accessibly lavatory solutions on existing type-certificated aircraft. As we also explained in the NPRM, airline customers largely chose *not* to select the accessible-lavatory option on the C-Series (now Airbus A220) aircraft that they order 42.

The long-term improvements include a lavatory size requirement for the passenger onboard an OBW, a lavatory size requirement for the passenger's attendant, and a requirement that airlines provide such lavatories on new single-aisle aircraft within a 10/12 time frame as discussed above. These measures can function separately from each other and are intended to operate as such. In the event that a court were to invalidate one or more of this final rules unique provisions, the Department's intent is that the remaining provisions should remain in effect to the greatest extent possible.

#### REGULATORY ANALYSES AND NOTICES

A. Executive Order 12866 (Regulatory Planning and Review), Executive Order 13563 (Improving Regulation and Regulatory Review), Executive Order 14094 (Modernizing Regulatory Review) and DOT Regulatory Policies and Procedures

This final rule has been determined to be significant under section 3(f)(1) of Executive Order 12866 ("Regulatory Planning and Review"), as amended by Executive Order 14094, ("Modernizing Regulatory Review"), 35 and under the Department of Transportation's Regulatory Policies and Procedures because of its considerable interest to the disability community and the aviation industry. It has been reviewed by the Office of Management and Budget (OMB) under Executive Order 12866. A summary of the Department's economic analysis is provided in the paragraphs to follow, and the complete Regulatory Impact Analysis is available in the docket for this rulemaking.

The objective of the rule is to ensure that passengers with disabilities not only can access lavatories on single-aisle aircraft, but also have privacy and dignity while using the lavatory during air travel. As such, this final rule addresses a human rights issue and promotes freedom to travel for people with disabilities. The lack of accessible lavatories on single-aisle aircraft makes air travel difficult for passengers with disabilities, especially if they use wheelchairs and need help transferring to a lavatory toilet. Some of the passengers, knowing that they will not be able to use

<sup>&</sup>lt;sup>35</sup> 88 FR 21879 (Apr. 11, 2023).

the lavatory during a flight, may dehydrate themselves or even withhold bodily functions so that they do not need to urinate. These actions can cause adverse health effects, including increased chances of urinary tract infections. Other passengers may use adult diapers or catheters, which they may find degrading and uncomfortable. Some wheelchair users avoid flying altogether.

The Department has determined that regulation is necessary because society cannot count on the private market to provide accessible lavatories reliably. The provision of accessible lavatories involves resource costs, as evident in the airlines' comments on the proposed rule and their reluctance to comply with the terms they agreed to during a negotiated rulemaking.

Moreover, the lack of reliable information on accessibility means that consumers do not have an adequate mechanism for expressing their preferences when they have a choice between flights with or without accessible lavatories. This final rule includes requirements that airlines provide accurate and consistent accessibility information under a more immediate timeframe to address the information problem. Accurate information benefits passengers with disabilities as well as those who simply would prefer additional space to perform routine lavatory functions if presented with the option.

The primary benefits of the rule are due to expected improvements in the quality of travel experience for persons with disabilities who currently participate in the market for air travel. In addition, greater convenience and accessibility could lead passengers with disabilities to increase their use of air travel, either by switching from slower modes of travel or by making more long-distance trips. Assigning monetary values to such basic human rights as the ability to relieve oneself involves intangible dimensions that are inherently difficult to quantify. These values are not necessarily observed in the market. Nevertheless, the Department gives full consideration to such unquantified and non-monetized benefits in its evaluation of this this rule. These attributes interact with and can be difficult to empirically distinguish from other aspects, including convenience or reductions in the amount of time needed for travel planning or for travel itself, that

are easier to value. Using an estimate of passengers' willingness to pay to avoid inconvenience, the benefits analysis applies a value of \$194 one-way trip to monetize benefits of accessible lavatories to passengers with disabilities.

The cost analysis is premised on the assumption that installing an accessible lavatory will require airlines, on average, to eliminate three passenger seats per aircraft. The three-seat loss assumption originated from airline industry analysis presented early in the rulemaking proceedings, and the Department recognizes that there will be variation in impacts across airlines. The Department lacks sufficient data to support an alternative assumption.

Table 1 summarizes the results of the analysis and the potential economic effects of the rule over the analysis timeframe, 2023-2067. Benefits analyzed over 2023-2067 are \$1 billion at a 3% discount rate or \$571 million at a 7% discount rate. The loss of three passenger seats per aircraft results in societal costs that include lost producer surplus due to the reduction in the number of passengers transported and the value of lost consumption. There also are resource costs due to manufacturing and designing improved lavatories and on-board wheelchairs as well as for flight attendant training. The cost analyzed over 2023 through 2067, are \$459 million at a 3% discount rate or \$228 million at a 7% discount rate. The rule also could result in a transfer from passengers to airlines due to airlines increasing airfares in response to the reduced supply of seats. The annualized transfers estimated for the primary analysis are \$2.2 billion at a 3% discount rate or \$1.1 billion at a 7% discount rate.

Passengers might experience economic effects in the form of increased airfares. The primary analysis estimates that in 2060 when all aircraft have accessible lavatories, domestic passengers would pay an additional \$2.54 per ticket on average and international passengers would pay an additional \$12.28. Passengers flying in earlier years, when some aircraft would not have accessible lavatories and reduced seating, would experience smaller airfare increases. The increase in ticket prices and resulting transfer from passengers offsets the direct revenue loss to

airlines. Analysis of potential revenue and price effects suggests that relative to the baseline, net revenue impacts to airlines will range from a loss of 1.6 percent loss to a gain of less than one percent. Airfare increases could range from zero to 3 or 4 percent of baseline airfares, depending on the ability of airlines to pass on increased costs through increases in airfare. Segments of the market characterized by a low price elasticity of demand will experience the largest potential fare increases, while the most price sensitive passengers will likely experience little to no airfare increases. In any case, the Department does not view compromises in accessibility as an acceptable mechanism for airlines to achieve or maintain lower prices in the market for air travel when the solution is technically and economically feasible.

Based upon the economic analysis and other information received from stakeholders throughout the rulemaking, the Department finds that the benefits of the final rule justify its costs. While the benefits of the rule have not been monetized, the available information sufficiently demonstrates that the status quo is untenable for passengers with disabilities who want or need to travel by air. In the context of the market for air travel and the airline industry, the estimated costs and expected impacts to airfares and industry revenues are reasonable, especially when viewed against the lengthy lead time for compliance and that industry agreed to make the accessibility improvements reflected in the final rule in 2016. These facts considered as a whole provide the basis for the Department's reasoned determination that the benefits of the rule justify its costs.

Table 1: Summary of economic impacts, 2023-2067 (2021 dollars, millions)

Item	Total present value (3% discount)	Annualized (3% discount)	Total present value (7% discount)	Annualized (7% discount)	
Benefits	\$21,166	\$1,019	\$7,282	\$571	
Costs					
Lost producer surplus	\$8,997	\$433	\$2,733	\$214	
Value of lost consumption (deadweight loss)	\$459	\$22	\$127	\$10	
Resource costs for lavatories, onboard wheelchairs, and flight attendant training	\$94	\$4	\$48	\$4	
Total societal costs	\$9,549	\$459	\$2,908	\$228	
Net benefits	\$11,616	\$560	\$4,374	\$343	
Other economic effects					
Transfers from passengers to airlines	\$44,785	\$2,157	\$13,562	\$1,063	

# B. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. § 601 et seq.) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant economic impact on a substantial number of small entities. A direct air carrier or foreign air carrier is a small business if it provides air transportation only with small aircraft (i.e., aircraft with up to 60 seats/18,000-pound payload capacity). Relative to typical airlines' operating costs and revenues, the impact is expected to be nonsignificant. We received no comment on the preliminary finding of nonsignificance or, more generally, the potential impact of this rulemaking on small entities. Therefore, the Department certifies that this final rule will not have a significant impact on a substantial number of small entities.

### C. Executive Order 13132 (Federalism)

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 ("Federalism"). This final rule does not include any provision that: (1) on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government; (2) imposes substantial direct compliance costs on State and local governments; or (3) preempts State law. States are already preempted from regulating in this area by the Airline Deregulation Act, 49 USC 41713. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

### D. Executive Order 13084

This rulemaking has been analyzed in accordance with the principles and criteria contained in Executive Order 13084 ("Consultation and Coordination with Indian Tribal Governments").

Because this rulemaking does not significantly or uniquely affect the communities of the Indian Tribal governments or impose substantial direct compliance costs on them, the funding and consultation requirements of Executive Order 13084 do not apply.

#### E. Paperwork Reduction Act

This final rule adds two new collections of information that would require approval OMB under the Paperwork Reduction Act of 1995 (Pub. L. 104-13, 44 U.S.C. 3501 et seq.). The rule requires carriers operating at least one aircraft with an FAA-certificated maximum seating capacity of 60 or more to provide information, on request, to qualified individuals with a disability or persons making inquiries on their behalf concerning, at a minimum, the accessibility features of aircraft lavatories set forth in the rule. A "carrier" is defined as a U.S. citizen or foreign citizen that undertakes, directly or indirectly, or by a lease or any other arrangement, to engage in air transportation.

This information must be available on the carrier's web site (if the carrier markets tickets to

the public). The information must also be provided in printed or electronic form on the aircraft, including picture diagrams of accessibility features in the lavatory and the location and usage of all controls and dispensers. Carriers must provide the information required by this rule three years after the effective date of the rule.

Under the Paperwork Reduction Act, before an agency submits a proposed collection of information to OMB for approval, it must first publish a document in the Federal Register providing notice of the proposed information collection and a 60-day comment period, and otherwise consult with members of the public and affected agencies concerning each proposed collection of information. The Department has not yet published a notice of the proposed information collection because the information will not be required until three years after the effective date of the final rule.

#### F. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act (UMRA) of 1995, 2 U.S.C. 1501, requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditures by States, local or tribal governments, or by the private sector, of \$100 million or more (adjusted annually for inflation with base year of 1995) in any one year. The 2021 threshold after adjustment for inflation is \$165 million, using the Implicit Price Deflator for the Gross Domestic Product. The assessment may be included in conjunction with other assessments, as it is here.

The final rule is unlikely to result in expenditures by State, local, or Tribal governments of more than \$100 million annually. However, it is estimated to result costs to the airline industry that may exceed \$165 million annually. The estimated costs are discussed in the Department's Regulatory Impact Analysis.

### G. National Environmental Policy Act

The Department has analyzed the envirgnmental impacts of this action pursuant to the

National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. § 4321 et seq.) and has determined that it is categorically excluded pursuant to DOT Order 5610.1C, Procedures for Considering Environmental Impacts (44 FR 56420, Oct. 1, 1979). Categorical exclusions are actions identified in an agency's NEPA implementing procedures that do not normally have a significant impact on the environment and therefore do not require either an environmental assessment (EA) or environmental impact statement (EIS). In analyzing the applicability of a categorical exclusion, the agency must also consider whether extraordinary circumstances are present that would warrant the preparation of an EA or EIS. Paragraph 4.c.6.i of DOT Order 5610.1C categorically excludes "[a]ctions relating to consumer protection, including regulations." Because this rulemaking relates to ensuring both the nondiscriminatory access to air transportation for consumers with disabilities, as well as the safe transport of the traveling public, this rulemaking is a consumer protection rulemaking. The Department does not anticipate any environmental impacts, and there are no extraordinary circumstances present in connection with this rulemaking.

### H. Congressional Review Act

Pursuant to Subtitle E of the Small Business Regulatory Enforcement Fairness Act of 1996 (the Congressional Review Act), OMB's Office of Information and Regulatory Affairs has found that this rule falls within the scope of 5 U.S.C. 804(2).

#### **List of Subjects**

14 CFR Part 382

Air Carriers, Civil rights, Consumer protection, Individuals with Disabilities, Reporting and recordkeeping requirements

For the reasons set forth in the preamble, the Department of Transportation amends 14 CFR part

<sup>37</sup> Id. 50

<sup>&</sup>lt;sup>36</sup> See 40 CFR 1508.4.

382 to read as follows:

PART 382 – NONDISCRIMINATION ON THE BASIS OF DISABILITY IN AIR

**TRAVEL** 

1. The authority citation for part 382 continues to read as follows:

**Authority:** 49 U.S.C. §§ 41702, 41705, 41712, and 41310.

**SUBPART C – Information for Passengers** 

2. In § 382.41, replace paragraph (e) with: "Information regarding accessibility of lavatories (see

§ 382.63(h)); and".

**SUBPART E – Accessibility of Aircraft** 

3. In § 382.63, add the phrase "not covered in paragraph (f) of this section" after the word

"aircraft" in paragraph (b), and add paragraphs (f), (g), and (h) to read as follows:

§ 382.63 What are the requirements for accessible lavatories?

\* \* \* \* \*

(f) As a carrier, you must ensure that all new single-aisle aircraft that you operate with an

FAA-certificated maximum seating capacity of 125 or more that are delivered on or after [DATE

THREE YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE] and on which

lavatories are provided shall include at least one lavatory that meets the following specifications:

(1) Grab bars must be provided and positioned as required to meet the needs of individuals

with disabilities.

(2) Lavatory faucets must have controls with tactile information concerning temperature.

Alternatively, carriers may comply with this requirement by ensuring that lavatory water

temperature is adjusted to eliminate the risk of scalding for all passengers. Automatic or hand-

51

operated faucets shall dispense water for a minimum of five seconds for each application or while the hand is below the faucet.

- (3) Attendant call buttons and door locks must be accessible to an individual seated within the lavatory.
- (4) Lavatory controls and dispensers must be discernible through the sense of touch. Operable parts within the lavatory must be operable with one hand and must not require tight grasping, pinching, or twisting of the wrist. You must comply with these requirements to the extent that such accessible components are reasonably available and certificated for the applicable aircraft type.

You are not responsible for acquiring lavatory controls and dispensers with an accessible feature described above so long as you inform the Department of their unavailability despite your reasonable efforts.

- (5) The lavatory door sill must provide minimum obstruction to the passage of the on-board wheelchair across the sill while preventing the leakage of fluids from the lavatory floor and trip hazards during an emergency evacuation.
- (6) Toe clearance must not be reduced from current measurements.
- (7) The aircraft must include a visual barrier that must be provided upon request of a passenger with a disability. The barrier must provide passengers with disabilities using the lavatory (with the lavatory door open) a level of privacy substantially equivalent to that provided to ambulatory users. Visual barriers are not an acceptable method of providing privacy with respect to lavatories covered in section 382.64.
- (g) You are not required to retrofit cabin interiors of existing single-aisle aircraft to comply with the requirements of paragraph (f) of this section. However, if you replace a lavatory on a single-aisle aircraft after [DATE THREE YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE], you must replace it with a lavatory complying with the requirements of paragraph

- (f) of this section. Under this paragraph (g), a lavatory is not considered replaced if it is removed for specified maintenance, safety checks, or any other action that results in returning the same lavatory into service. For retrofit lavatories, there shall be no requirement to install a visual barrier if doing so will obstruct the visibility of exit signs.
- (h) As a carrier operating at least one aircraft with an FAA-certificated maximum seating capacity of 60 or more, you must comply with the following requirements:
- (1) You must train flight attendants to proficiency on an annual basis to provide assistance in transporting qualified individuals with disabilities to and from the lavatory from the aircraft seat. Such training shall include hands-on training on the retrieval, assembly, stowage, transfer features, and use of the aircraft's on-board wheelchair, and regarding the accessibility features of the lavatory, including any assembly or modifications to accessibility features.
- (2) You must provide information, on request, to qualified individuals with a disability or persons making inquiries on their behalf concerning, at a minimum, the accessibility features of aircraft lavatories set forth in section 382.63(f). This information must also be available on the carrier's web site (if the carrier markets tickets to the public), and in printed or electronic form on the aircraft, including picture diagrams of accessibility features in the lavatory and the location and usage of all controls and dispensers.
- (3) You must remove or conceal the International Symbol of Accessibility from new and inservice aircraft equipped with lavatories that are not capable of facilitating a seated independent transfer (i.e., a transfer from an on-board wheelchair to the toilet seat without requiring the use of an assistant). You must include the International Symbol of Accessibility if the lavatory is capable of providing a seated independent transfer.
- (4) You must develop and, upon request, inform passengers of trash disposal procedures and processes for sharps and bio-waste.

- (5) You must comply with the provisions of this paragraph (h) by [DATE THREE YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE].
- 4. Section 382.64 is added to read as follows:

## § 382.64 What are the requirements for large accessible lavatories on single-aisle aircraft?

- (a) As a carrier, you must ensure that all new single-aisle aircraft that you operate with an FAA-certificated maximum seating capacity of 125 seats or more in which lavatories are provided, shall include at least one lavatory of sufficient size to:
- (1) Permit a qualified individual with a disability equivalent in size to a 95<sup>th</sup> percentile male to approach, enter, maneuver within as necessary to use all lavatory facilities, and leave, by means of the aircraft's on-board wheelchair, in a closed space that affords privacy equivalent to that afforded to ambulatory users; and
- (2) Permit an assistant equivalent in size to a 95<sup>th</sup> percentile male to assist a qualified individual with a disability, including assisting in transfers between the toilet and the aircraft's on-board wheelchair, within a closed space that affords privacy equivalent to that afforded to ambulatory users.
- (b) You are not required to retrofit cabin interiors of existing single-aisle aircraft to comply with the requirements of paragraph (a) of this section.
- (c) As a carrier, you must comply with the requirements of this section with respect to new aircraft that you operate that were originally ordered after [DATE 10 YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE] or delivered after [DATE 12 YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE] or are part of a new type-certificated design filed with the FAA or a foreign carrier's safety authority after [DATE ONE YEAR AFTER THE EFFECTIVE DATE OF THE FINAL RULE].

5. In § 382.65, add paragraphs (e), (f), (g), and (h) as follows:

# § 382.65 What are the requirements concerning on-board wheelchairs?

\* \* \* \* \*

- (e) As a carrier, you must ensure that all new single-aisle aircraft that you operate with an FAA-certificated maximum seating capacity of 125 or more that are delivered on or after [DATE THREE YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE] and on which lavatories are provided include an on-board wheelchair meeting the requirements of this section. The Access Board's published nonbinding technical assistance on aircraft on-board wheelchairs may be relied upon for compliance with these requirements.
- **(1)** The on-board wheelchair must be maneuverable both forward and backward through the aircraft aisle by an attendant.
- (2)The height of the on-board wheelchair seat must align with the height of the aircraft seat so as to facilitate a safe transfer between the on-board wheelchair seat and the aircraft seat.
- (3) The on-board wheelchair must have wheels that lock in the direction of travel, and that lock in place so as to permit safe transfers. Any other moving parts of the on-board wheelchair must be capable of being secured such that they do not move while the occupied on-board wheelchair is being maneuvered.
- (4) The on-board wheelchair shall be designed not to tip or fall in any direction under normal operating conditions when occupied for use.
- (5)The on-board wheelchair must have a padded seat and backrest and must be free of sharp or abrasive components.
- (6) The on-board wheelchair must have arm supports that are sufficiently structurally sound to permit transfers and repositionable so as to allow for unobstructed transfers; adequate back support; torso and leg restraints that are adequate to prevent injury during transport; and a unitary 55

foot support that provides sufficient clearance to traverse the threshold of the lavatory and is repositionable so as to allow for unobstructed transfer. All restraints must be operable by the passenger.

- (7) The on-board wheelchair must be maneuverable in a forward orientation partially into at least one aircraft lavatory to permit transfer from the on-board wheelchair to the toilet.
- (8) The on-board wheelchair must be maneuverable into the aircraft lavatory without protruding into the clear space needed to completely close the lavatory door.
- (9) The on-board wheelchair must prominently display instructions for proper use.
- You are not required to expand the existing FAA-certificated on-board wheelchair stowage space of the aircraft, or modify the interior arrangement of the lavatory or the aircraft, in order to comply with this section. However, if the on-board wheelchair that you obtain does not fit within the original stowage space, and another space exists (e.g., an overhead compartment) where the on-board wheelchair could fit consistent with FAA safety standards, then you must stow the on-board wheelchair in that space and must request any necessary FAA approval to do so. You are not required to make the on-board wheelchair available if the pilot-in-command determines that safety or security considerations preclude its use.
- (g) You must acquire an OBW that complies with as many requirements set forth in section (e) as are available. You are not responsible for the failure of third parties to develop and deliver an on-board wheelchair that complies with a requirement set forth in paragraph (e) of this section so long as you make reasonable efforts to purchase such an OBW and inform the Department at the address cited in § 382.159 that an on-board wheelchair meeting that requirement is unavailable despite your reasonable efforts. If you cannot provide a wheelchair meeting requirement (e)(8) despite your reasonable efforts, then you must provide, on request, the use of the visual barrier (e.g. a curtain) described in § 382.63(f)(7) to enable the passenger to perform lavatory functions in privacy.

(h) If you replace an on-board wheelchair on aircraft with an FAA-certificated maximum seating capacity of 125 or more after [DATE THREE YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE], then you must replace it with an on-board wheelchair that meets the standards set forth in paragraph (e) of this section.

Issued this 25th day of July, 2023, in Washington, D.C.

-Original Signed-

Peter Paul Montgomery Buttigieg, Secretary.