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**DEPARTMENT OF TRANSPORTATION**

**Office of the Secretary**

**14 CFR Parts 382 and 399**

**49 CFR Part 27**

**[Docket No. DOT-OST-2011-0177]**

**RIN 2105-AD96**

**Nondiscrimination on the Basis of Disability in Air Travel: Accessibility of Web Sites and Automated Kiosks at U.S. Airports**

**AGENCY:** Office of the Secretary, DOT.

**ACTION:** Final rule.

**SUMMARY:** The Department of Transportation is amending its rules implementing the Air Carrier Access Act (ACAA) to require U.S. air carriers and foreign air carriers to make their Web sites that market air transportation to the general public in the United States accessible to individuals with disabilities. In addition, the Department is amending its rule that prohibits unfair and deceptive practices and unfair methods of competition to require ticket agents that are not small businesses to disclose and offer Web-based fares to passengers who indicate that they are unable to use the agents' Web sites due to a disability. DOT is also requiring U.S. and foreign air carriers to ensure that kiosks meet detailed accessibility design standards specified in this rule until a total of at least 25 percent of automated kiosks in each location at the airport meet these standards. In addition, the Department is amending its rule implementing the Rehabilitation Act to require U.S. airport operators meet the same accessibility standards.

**DATES:** This rule is effective December 12, 2013.

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**SUPPLEMENTARY INFORMATION:** The Department of Transportation is amending its rule implementing the Air Carrier Access Act (ACAA) to require U.S. air carriers and foreign air carriers to make their Web sites that market air transportation to the general public in the United States accessible to individuals with disabilities. Specifically, we are requiring U.S. and foreign air carriers that operate at least one aircraft having a seating capacity of more than 60 passengers to ensure that their primary Web sites are accessible. The requirements will be implemented in two phases. Web pages that provide core air travel services and information (e.g., booking or changing a reservation) must be accessible by December 12, 2015. All remaining pages on a carrier’s Web site must be accessible by December 12, 2016. Web sites must conform to the standard for accessibility contained in the widely accepted Website Content Accessibility Guidelines (WCAG) 2.0 and meet the Level AA Success Criteria. In addition, the Department is amending its rule that prohibits unfair and deceptive practices and unfair methods of competition to require ticket agents that are not small businesses to disclose and offer Web-based fares on or after June 10, 2014, to passengers who indicate that they are unable to use the agents’ Web sites due to a disability.

DOT is also requiring U.S. and foreign air carriers that own, lease, or control automated airport kiosks at U.S. airports with 10,000 or more annual enplanements to ensure that kiosks installed after December 12, 2016, meet detailed accessibility design standards specified in this rule until a total of at least 25 percent of automated kiosks in each location at the airport meet these standards. In addition, accessible kiosks provided in each location at the airport must provide all the same functions as the inaccessible kiosks in that location. These goals must be met by December 12, 2022. In addition, the Department is amending its rule implementing the Rehabilitation Act to require U.S. airport operators that jointly own, lease, or control automated airport kiosks with U.S. or foreign air carriers to work with the carriers to ensure that the kiosks installed after December 12, 2016, meet the same accessibility standards. The accessibility standard for automated airport kiosks set forth in this rule is based, in part, on the standard for automated teller and fare machines established by the Department of Justice in the 2010 amendment to its Americans with Disabilities Act (ADA) rules.

### **Executive Summary**

The purpose of this rulemaking is to ensure that passengers with disabilities have equal access to the same air travel-related information and services that are available to passengers without disabilities through airline Web sites and airport kiosks. In the Department's view, equal access means that passengers with disabilities can obtain the same information and services on airline Web sites and airport kiosks as conveniently and independently as passengers without disabilities. We expect this rulemaking to be a major step toward ending unequal access in air transportation for people with disabilities resulting from inaccessible carrier Web sites and airport kiosks.

Today, individuals with disabilities often cannot use an airline's website because it is not accessible. There are many disadvantages to not being able to do so even with the existing prohibition on airlines charging fees to passengers with disabilities for telephone or in-person reservations, or not making web fare discounts available to passengers with disabilities who cannot use inaccessible websites. For example, the cheapest prices for air fares and ancillary services are almost always on the airline's Web site. As a practical matter, the cheapest fares may not be made available to many consumers with disabilities who book by phone or in person as they may be unaware of their right to ask for the Web fare discounts. A few airlines also do not have telephone reservation operations or ticket offices, making it particularly difficult for passengers with disabilities to purchase tickets from them. Inaccessible Web sites also prevent persons with disabilities from checking out many airlines' fares online for the best price before making a choice, booking an online reservation any time of day or night, or avoiding long wait times associated with making telephone reservations. Many also can't always take advantage of checking-in early online to save time as passengers without disabilities can. The reality is that some people with disabilities currently lack access to most, if not all, of the information and services on certain carriers' Web sites that are available to their non-disabled counterparts.

As for airport kiosks, many passengers today use airport kiosks when arriving at the airport to finalize their travel preparations, whether scanning a passport to check in, printing a boarding pass, cancelling/rebooking a ticket, or printing baggage tags. The convenience of airport kiosks simplifies the airport experience of countless travelers as they independently conduct the necessary transactions and head to their departure gates. For many passengers with disabilities who are otherwise self-sufficient, using an airport kiosk can only be done with assistance from others. In many instances, passengers who cannot use a kiosk due to a disability

are simply directed to a line at the ticket counter where they receive expedited service from an agent. This is not a good solution as it denies travelers with disabilities their rights to function independently and excludes them from the advantages other air travelers enjoy in using kiosks.

The legal authority for the Department’s regulatory action affecting 14 CFR part 382 is 49 U.S.C. 41702, 41705, 41712, and 41310. Our legal authority for regulatory action affecting 49 CFR part 27 is Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794).

Below is a summary of the major provisions of this regulatory action.

**Summary of Major Provisions**

<b>Web Site Accessibility</b>	
<i>Scope/ Coverage</i>	<ul style="list-style-type: none"> <li>• Requires U.S. and foreign carriers that operate at least one aircraft having a seating capacity of more than 60 passengers, and own or control a primary Web site that markets air transportation to consumers in the United States to ensure that public-facing pages on their primary Web site are accessible to individuals with disabilities.</li> <li>• Requires ticket agents that are not small businesses to disclose and offer Web-based fares to passengers who indicate that they are unable to use an agent’s Web site due to a disability.</li> </ul>
<i>Web Site Accessibility Standard</i>	<ul style="list-style-type: none"> <li>• Requires carriers to ensure that Web pages on their primary Web sites associated with core travel information and services conform to all Level AA success criteria of the Web Content Accessibility Guidelines (WCAG) 2.0 within two years of the rule’s effective date and that all other Web pages on their primary Web sites are conformant within three years of the rule’s effective date.</li> </ul>
<i>Usability Testing of Web Sites</i>	<ul style="list-style-type: none"> <li>• Requires carriers to test the usability of their accessible primary Web sites in consultation with</li> </ul>

	individuals or organizations representing visual, auditory, tactile, and cognitive disabilities.
<i>Equivalent Service</i>	<ul style="list-style-type: none"> <li>• Requires carriers to provide applicable Web-based fare discounts and other Web-based amenities to customers with a disability who cannot use their Web sites due to a disability.</li> <li>• Requires ticket agents to provide applicable Web-based fare discounts on and after 180 days from the rule’s effective date to customers with a disability who cannot use an agent’s Web sites due to a disability.</li> </ul>
<i>Online Disability Accommodation Requests</i>	<ul style="list-style-type: none"> <li>• Requires carriers to make an online service request form available within two years of the rule’s effective date for passengers with disabilities to request services including, but not limited to, wheelchair assistance, seating accommodation, escort assistance for a visually impaired passenger, and stowage of an assistive device.</li> </ul>

**Automated Airport Kiosk Accessibility**

<i>Scope, Coverage, and Kiosk Accessibility</i>	<ul style="list-style-type: none"> <li>• Requires U.S. and foreign air carriers that own, lease, or control automated airport kiosks at U.S. airports with 10,000 or more annual enplanements to ensure that all new automated airport kiosks installed three or more years after the rule’s effective date meet required technical accessibility standards until at least 25 percent of automated kiosks in each location at the airport is accessible. Accessible kiosks provided in each location at the airport must provide all the same functions as the inaccessible kiosks in that location. These goals must be met within ten years after the rule’s effective date.</li> <li>• Requires airlines and airports to ensure that all shared-use automated airport kiosks installed three or more years after the rule’s effective date meet required technical accessibility standards until at</li> </ul>
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	<p>least 25 percent of automated kiosks in each location at the airport is accessible. Accessible kiosks provided in each location at the airport must provide all the same functions as the inaccessible kiosks in that location. These goals must be met within ten years after the rule's effective date.</p>
<i>Identification and Maintenance of Accessible Kiosks</i>	<ul style="list-style-type: none"> <li>• Requires carriers and airports to ensure that accessible automated airport kiosks are visually and tactilely identifiable and maintained in working condition.</li> </ul>
<i>Joint and Several Liability</i>	<ul style="list-style-type: none"> <li>• Makes carriers and airports jointly and severally liable for ensuring that shared-use automated airport kiosks meet accessibility requirements.</li> </ul>
<i>Priority Access</i>	<ul style="list-style-type: none"> <li>• Requires carriers to give passengers with a disability requesting an accessible automated kiosk priority access to any available accessible kiosk the carrier owns, leases, or controls in that location at the airport.</li> </ul>
<i>Equivalent Service</i>	<ul style="list-style-type: none"> <li>• Requires carriers to provide equivalent service upon request to passengers with a disability who cannot readily use their automated airport kiosks.</li> </ul>

### **Summary of Regulatory Analysis**

The regulatory analysis summarized in the table below shows that the estimated monetized costs of the Web site and kiosk requirements exceed their estimated monetized benefits at the 7% discount rate but the monetized benefits exceed the costs at the 3% discount rate. The present value of monetized net benefits for a 10-year analysis period is estimated to be -\$4.0 million at a 7% discount rate and \$13.7 million at a 3% discount rate. Additional benefits and costs were also identified for which quantitative estimates could not be developed. The Department believes that the qualitative and non-quantifiable benefits of the Web site and kiosk accessibility requirements combined with the quantifiable benefits justify the costs and make the total benefits of the rule exceed the total costs of the rule. A more detailed discussion of the

monetized benefits and costs for the final Web site and kiosk accessibility requirements is provided in the Regulatory Analysis and Notices section below.

**Present Value of Net Benefits for Rule Requirements (millions)\***

<b>Monetized Benefits and Costs</b>	<b>Discounting Period/Rate</b>	<b>Web Sites</b>	<b>Kiosks</b>	<b>Present value (millions)</b>
Monetized Benefits	10 Years, 7% discounting	\$75.9	\$34.8	\$110.7
	10 Years, 3% discounting	\$90.3	\$42.0	\$132.3
Monetized Costs	10 Years, 7% discounting	\$79.8	\$34.9	\$114.7
	10 Years, 3% discounting	\$82.5	\$36.1	\$118.6
Monetized Net Benefits	10 Years, 7% discounting	(\$3.9)	(\$0.1)	<b>(\$4.0)</b>
	10 Years, 3% discounting	\$7.8	\$5.9	\$13.7

\*Present value in 2016 for Web site requirements and 2017 for kiosk requirements.

**Background**

On May 13, 2008, the Department of Transportation (“Department” or “DOT,” also “we” or “us”) amended 14 CFR Part 382 (Part 382), its ACAA rule, to apply the rule to foreign carriers and to add new provisions concerning passengers who use medical oxygen and those who are deaf or hard of hearing, among other things.<sup>1</sup> The final rule consolidated and took final action on proposals from three separate notices of proposed rulemaking (NPRM).<sup>2</sup> In the preamble of the 2008 final rule, we announced that we would defer final action on certain proposals and issues set forth in the three NPRMs in order to seek further information on their cost and technical feasibility through a supplemental notice of proposed rulemaking (SNPRM). Among the issues we intended to revisit in the SNPRM was a proposal in the initial NPRM to

<sup>1</sup> 73 FR 27614-27687 (May 13, 2008), as modified by 74 FR 11469-11472 (March 18, 2009) and 75 FR 44885-44887 (July 30, 2010).

<sup>2</sup> Nondiscrimination on the Basis of Disability in Air Travel, Notice of Proposed Rulemaking, 69 FR 64364-64395 (November 4, 2004); Nondiscrimination on the Basis of Disability in Air Travel – Medical Oxygen and Portable Respiration Assistive Devices, Notice of Proposed Rulemaking, 70 FR 53108-53117 (September 7, 2005); and Accommodations for Individuals Who Are Deaf, Hard of Hearing, or Deaf-Blind, Notice of Proposed Rulemaking, 71 FR 9285-9299 (February 23, 2006).

require carriers and their agents to make their Web sites accessible to people with vision impairments and other disabilities. See 69 FR 64364, 64382-83 (November 4, 2004), hereinafter “Foreign Carrier NPRM.” We also pledged to seek further comment on kiosk accessibility, which we had discussed in the preamble of the initial NPRM. See *Id.* at 64370. In the 2008 final rule, as an interim measure, we mandated that carriers ensure passengers with disabilities who cannot use inaccessible kiosks or inaccessible websites are provided equivalent service.

On September 26, 2011, the Department published an SNPRM proposing to require U.S. and foreign air carriers to make their Web sites accessible to individuals with disabilities and to ensure that their ticket agents do the same. We also proposed to require U.S. and foreign air carriers to ensure that their proprietary and shared-use automated airport kiosks are accessible to individuals with disabilities. In addition, we proposed to revise our rule implementing Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794) to require U.S. airports to work with airlines to ensure that shared-use automated airport kiosks are accessible to individuals with disabilities. The SNPRM also set forth the technical criteria and procedures that we proposed to apply to automated airport kiosks and to Web sites on which air transportation is marketed to the general public in the United States to ensure that individuals with disabilities can readily use these technologies to obtain the same information and services as other members of the public. See 76 FR 59307 (September 26, 2011). Comments on the SNPRM were to be filed by November 25, 2011.

### **Request for Clarification and Extension of Comment Period**

In October 2011, the Department received a joint request from the Air Transport Association (now Airlines for America), the International Air Transport Association, the Air Carrier Association of America, and the Regional Airline Association for clarification of the

proposal and a 120-day extension of the comment period. The carrier associations specifically asked DOT to clarify the following with regard to our Web site accessibility proposals: 1) whether the scope of the proposed Web site accessibility requirements included the non-U.S. Web sites of U.S. carriers (e.g., country-specific Web sites maintained by U.S. carriers for the purpose of selling to consumers in countries other than the United States); 2) the meaning of the terms “primary,” “main,” and “public-facing” as used in the proposed Web site requirements; 3) whether the term “alternate conforming version” as described in the SNPRM would encompass “text-only” features offered by some carriers on their primary Web sites; 4) whether carriers would be responsible under the proposed requirement to ensure that the Web sites of large tour operators and carrier alliances are accessible; 5) the Department’s authority to regulate ticket agent Web sites directly under 49 U.S.C. 41712, rather than indirectly through the carriers under the ACAA; and 6) the basis for our estimates of the recurring costs associated with maintaining Web site accessibility. Regarding the Department’s kiosk accessibility proposals, the carrier associations asked for clarification concerning: 1) whether the Department intended to require some retrofitting of automated airport kiosks in the final rule in the absence of a specific proposal on the issue in the SNPRM; and 2) whether automated ticket scanners at U.S. airports would be covered by the proposed accessibility requirements. We received additional requests shortly thereafter from the Association of Asia Pacific Airlines (AAPA) and the Interactive Travel Services Association (ITSA) to extend the comment deadline.

By early November 2011, members of the disability community and advocacy organizations were also requesting that we delay the closing of the comment period until accessibility issues concerning the comment form available at [www.regulations.gov](http://www.regulations.gov) could be resolved. In response, we sought expedited action from the Regulations.gov workgroup to

correct the accessibility problems with the form and issued a notice in the Federal Register on November 21, 2011, outlining alternative methods for submitting comments until the comment form could be made fully accessible. See 76 FR 71914 (November 21, 2011). This notice also addressed the carrier associations' clarification requests and extended the public comment period until January 9, 2012.

We responded to the carrier associations' inquiries concerning our Web site accessibility requirements by explaining that it was our intention to exclude from the accessibility requirements both U.S. and foreign air carrier Web sites that market air transportation solely to consumers outside of the United States. We also further defined "public-facing" Web pages as those on a carrier's or agent's Web site intended for access and use by the general public rather than for limited access (e.g., by carrier employees only). For carriers that own, lease, or control multiple Web sites that market air transportation and offer related services and information, we explained that its "primary" or "main" Web site is the one accessed upon entering the uniform resource locator "[www.carriername.com](#)" in an Internet browser from a standard desktop or laptop computer. We note that some carriers use their IATA airline designator code or other convention in their primary Web site URL (e.g., [www.aa.com](#), [www.virgin-atlantic.com](#)). We further explained that a carrier's text-only Web page may only be considered a conforming alternate version if 1) it provides the same content and functionality as the corresponding non-conforming page on the carrier's primary Web site, 2) it can be reached via an accessible link from the primary Web site, 3) the content conforms with WCAG 2.0 Level A and AA success criteria, and 4) it is promptly updated to reflect all changes to content available to its non-disabled customers on the primary Web site. In response to the request for clarification regarding the applicability of the accessibility requirements to ticket agent Web sites, we also explained

that the requirements would apply to Web sites of large tour operators, since both travel agents and tour operators fall within the definition of ticket agent found in 49 U.S.C. 40102(a)(45).

Carrier alliance Web sites, on the other hand, are operated by carriers but are not primary carrier Web sites and therefore would not be covered.

Regarding the question raised about the Department's assertion of its authority to regulate ticket agents directly while proposing to regulate ticket agents indirectly through the carriers, we stated that it was our intention to gather more information from the public about the course of action that would best serve the public interest. We stated in the notice that the Department's authority under 49 U.S.C. 41712 extends to unfair practices, including discrimination against a protected class of consumers by ticket agents,<sup>3</sup> in this case discrimination against individuals with disabilities who are excluded from using the agents' inaccessible Web sites solely due to their disabilities. We acknowledged that the Department of Justice (DOJ) was also likely to mandate that ticket agents make their Web sites accessible under a future amendment to that agency's rule implementing title III of the ADA. At the same time, we stated our intention to pursue a regulatory approach vis-à-vis the accessibility of ticket agent Web sites that would best serve the goal of achieving Web site accessibility for all in the shortest reasonable time frame. Finally, we corrected the errors in the SNPRM and preliminary regulatory evaluation concerning the estimated annual cost of maintaining Web site accessibility and re-explained the basis of the cost estimate.

Regarding the carrier associations' inquiries about our proposals concerning accessible automated airport kiosks, we explained that: 1) although we did not propose to require retrofitting of existing kiosks, we were seeking information about the technical feasibility and

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<sup>3</sup> 49 U.S.C. 41712 authorizes the Secretary of Transportation to investigate and determine whether an air carrier, foreign air carrier, or ticket agent has been or is engaged in an unfair or deceptive practice or an unfair method of competition in air transportation or the sale of air transportation, and if so, to stop such practice or method.

cost impact of retrofitting some number of kiosks before the end of their life cycle if that should be necessary to ensure at least some accessible kiosks in every location at the airport within a reasonable time after the rule goes into effect; and 2) automated ticket scanners would fall within the scope of automated kiosks the Department intended to cover under the proposed requirements.

The Department received 84 comments on issues raised in the SNPRM from industry and advocacy organizations, academic institutions, and members of the public. The industry comments included: two from airline associations (the Association of Asia Pacific Airlines(AAPA), as well as a joint submission by Airlines for America (A4A), the International Air Transport Association (IATA), Regional Airline Association (RAA) and Air Carrier Association of America that also included comments from the Airports Council International-North America (ACI-NA)), two from airports (San Francisco International and Denver International), three from U.S. carriers (Spirit Airlines, Allegiant Air, LLC, and Virgin America), four from foreign air carriers (Air New Zealand Limited, All Nippon Airways, Condor Flugdienst GmbH, and El Al Israel Airlines Ltd.), four from travel agency or tour operator associations (a joint submission by the American Society of Travel Agents (ASTA) and the National Tour Association (NTA), a joint submission by NTA and Student and Youth Travel Association (SYTA), as well as separate submissions by the Interactive Travel Services Association (ITSA), and the United States Tour Operators Association (USTOA)), and one from a trade association representing leading companies in the information and communication technology sector (Information Technology Industry Council (ITI)). Advocacy organization comments included one airline passenger consumer organization (Association for Airline Passenger Rights) and 11 submissions from disability advocacy organizations (a joint submission

by the American Council of the Blind (ACB) and American Foundation of the Blind (AFB), Consortium for Citizens with Disabilities (CCD), a joint submission by the National Association of the Deaf (NAD), Deaf and Hard of Hearing Consumer Advocacy Network (DEAFCAN), Telecommunications for Deaf and Hard of Hearing, Inc. (TDHH), Association of Late-Deafened Adults, Inc. (ALDA), Hearing Loss Association of America (HLAA), and California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), and individual submissions by Disability Rights New Jersey (DRNJ), Silicon Valley Independent Living Center (SVILC), National Federation of the Blind (NFB), United Spinal Association (United Spinal), Association of Blind Citizens (ABC), National Council on Independent Living (NCIL), American Association of People with Disabilities (AAPD), Paralyzed Veterans of America (PVA), and Open Doors Organization (ODO)). Comments from academic institutes included one each from the Burton Blatt Institute (BBI) at Syracuse University, the Department of Computer and Information Sciences at Towson University, and the Trace Research and Development Center (Trace Center) at the University of Wisconsin, and two from the Cornell e-Rulemaking Initiative (CeRI) at Cornell University. There were also 22 individual and joint submissions from students at the University of Pittsburgh School of Law. Nearly 30 individual members of the public also posted comments, 21 of whom identified themselves as persons with disabilities or relatives of the same.

One submission from the Cornell e-Rulemaking Initiative consisted of summaries of the public discussion on the SNPRM proposals that occurred on its Regulation Room Web site, <http://www.regulationroom.org>. The Regulation Room Web site is a pilot project in which members of the public can learn about and discuss proposed Federal regulations and provide feedback to agency decision makers. The Department partnered with Cornell University on this

open government initiative of the Obama administration in order to discover the best ways to use Web 2.0 and social networking technologies to increase effective public involvement in the rulemaking process. During the period the SNPRM was available for comment on the Regulation Room Web site, there were nearly 8,000 unique visitors to the site. Those who registered to participate in the discussion totaled 53 and of those, 29 identified as having a disability. A total of 103 comments were posted by 31 of the 53 registered respondents, with 18 comments submitted by respondents identifying as having a disability. The Regulation Room submitted summaries to the Department of the online discussions addressing the accessibility standards, applicability, scope of the requirements, benefits and costs, and implementation approach of the proposed accessibility requirements for both Web sites and kiosks.

The Department has carefully reviewed and considered all the comments received. A summary of the proposed requirements and related questions asked in the SNPRM, the public comments responsive to those proposals, and the Department's responses are set forth in the sections that follow.

## **Summary of Comments and Responses**

### **Web Site Accessibility**

In the September 2011 SNPRM, we proposed to require that U.S. and foreign air carriers ensure that the public-facing content of a primary Web site they own or control that markets air transportation<sup>4</sup> to the general public in the United States conforms to the WCAG 2.0 Success

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<sup>4</sup> 49 U.S.C. 40102(a)(5) defines "air transportation" as foreign air transportation, interstate air transportation, or the transportation of mail by aircraft. 49 U.S.C. 40102(a)(23) defines "foreign air transportation" as the transportation of passengers or property by aircraft as a common carrier for compensation, or the transportation of mail by aircraft, between a place in the United States and a place outside of the United States when any part of the transportation is by aircraft. 49 U.S.C. 40102(a)(25) defines "interstate transportation" as the transportation of passengers or property by aircraft as a common carrier for compensation, or the transportation of mail by aircraft between a place in a State, territory, or possession of the United States and (i) a place in the District of Columbia or another State, territory, or possession of the United States; (ii) Hawaii and another place in Hawaii through the airspace over a

Criteria and all Conformance Requirements at Level A and Level AA. We explained that the proposed requirements would apply to foreign carriers only with respect to public-facing pages on Web sites they own or control that market air transportation to the general public in the United States and made clear in the November 2011 notice that this same limitation would apply to U.S. carriers as well. For both U.S. and foreign carriers, our intent was to exclude from coverage public-facing content on primary Web sites they own or control that market flights to the general public outside of the United States. We explained that the characteristics of a covered primary Web site that markets air transportation to the general public inside the United States includes, but is not limited to, a site that: 1) contains an option to view content in English, 2) advertises or sells flights operating to, from, or within the United States, and 3) displays fares in U.S. dollars. We note that non-English (e.g., Spanish) Web sites targeting a U.S. market segment would also be covered; whereas Web sites that block sales to customers with U.S. addresses or telephone numbers, even if in English, would not. We also stated our intention to continue requiring carriers to make applicable discounted Web-based fares and other Web-based amenities available to passengers who self-identify as being unable to use an inaccessible Web site due to their disability and to extend the requirement to do the same for passengers who self-identify as being unable to use the carrier's Web site that meets the WCAG 2.0 standard due to their disability.

In addition to the content on their primary Web sites, the Department proposed to require U.S. and foreign carriers to ensure that when their ticket agents are providing schedule and fare information and marketing covered air transportation services to the general public in the United States on Web sites, that these ticket agent Web sites also meet the WCAG 2.0 standard. We

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place outside Hawaii; (iii) the District of Columbia and another place in the District of Columbia; or (iv) a territory or possession of the United States and another place in the same territory or possession; and when any part of the transportation is by aircraft.

proposed to limit the scope of the carriers' responsibility to ensure agent Web site accessibility to the Web sites of agents that are not small businesses as defined by the Small Business Administration under 13 CFR 121.201( i.e., travel agents or tour operators with annual receipts exceeding \$19million). Specifically with regard to small ticket agents, we proposed to permit carriers to market air transportation on the inaccessible Web sites of such agents but at the same time require carriers to ensure that those small agents make Web-based discount fares available and waive applicable reservation fees to a passenger who indicates that he or she is unable to use an agent's Web site and purchases tickets using another method, unless the fee would apply to other customers purchasing the same ticket online.

Finally, we proposed a tiered implementation approach in which the WCAG 2.0 standard at Level A and AA would apply to 1) a new or completely redesigned primary Web site brought online 180 or more days after the effective date of the final rule; 2) Web pages on an existing Web site associated with core air travel services and information<sup>5</sup> to be conformant either on a primary Web site or by providing accessible links from the associated pages on a primary Web site to corresponding accessible pages on a mobile Web site by one year after the final rule's effective date; and 3) all covered Web pages on a carrier's primary Web site by two years after the final rule's effective date.

#### 1. Technical Standard for Web Site Accessibility

The SNPRM: The Department proposed WCAG 2.0 at Level AA (Level AA includes all the Level A success criteria) as the required accessibility standard for all public-facing Web

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<sup>5</sup> In the September 2011 SNPRM, the Department defined core air travel services and information on Web sites as the booking and check-in functions as well as information pertaining to personal flight itinerary, flight status, frequent flyer account, flight schedules, and carrier contact information available to consumers on a carrier's primary Web site.

pages involved in marketing air transportation to the general public in the United States on primary carrier and ticket agent Web sites.

Comments: The comments submitted jointly by A4A, IATA, ACI-NA, RAA, and the Air Carrier Association of America opposed mandating a single technical standard for Web site accessibility. They supported various compliance options that, for the most part, would provide increased access for passengers with disabilities to some, but not all, of the content on primary carrier Web sites through an alternative text-only or Mobile Web site conformant with any of the following standards: WCAG 1.0, WCAG 2.0 at Level A, existing Section 508 standards, or Mobile Web Best Practices (MWBP) 1.0 (if applicable). Two of the options they proposed would allow carriers to establish an alternative Web site (i.e., text-only or mobile Web site) containing only the proposed core air travel information and essential functions to which they would apply the accessibility standard of their choice. Two other options they proposed would allow them to apply the standard of choice to limited portions of a carrier's primary Web site (i.e., either to newly designed Web pages or to Web pages associated with core air travel services and information). These compliance options proposed by the carrier associations, as well as other electronic information and communication technology issues discussed in the SNPRM, are presented in greater detail below in the section on Scope. Regarding compliance with the WCAG 2.0 standard at Level AA, the carrier associations asserted that requiring carriers to comply with WCAG 2.0 would "set a very high bar that exceeds federal government website accessibility requirements." They commented that no government agency currently is required to meet the WCAG 2.0 Level A and AA standards, maintaining that the section 508 Web site

standard agencies are required to meet is the equivalent of the WCAG 1.0 standard.<sup>6</sup> They argued that the airline industry should not be the “test case” or the first to implement WCAG 2.0.

Although the Association of Asia Pacific Airlines (AAPA) did not specifically oppose the WCAG 2.0 standard, they noted that requiring airlines to apply the standard to primary Web sites which include covered and non-covered content could result in the airlines having to revamp Web pages and shared electronic data sources outside the scope of the requirement from which the covered Web sites obtain information. This concern was echoed by foreign carriers that commented individually, although none of the comments provided any information about the amount of non-covered content they anticipated having to change. AAPA also expressed concern that foreign carriers may eventually be required by the law of their countries to meet a different Web site accessibility standard. Another carrier commenting individually supported compliance with the WCAG 2.0 Level A standard but only for those portions of its Web site involved in providing core air transportation information and functions. Other carriers objected to the Department requiring the WCAG 2.0 standard altogether, opining that it is “not widely used on commercial websites” or that the technical criteria are “highly subjective.” One U.S. carrier was unopposed to the WCAG 2.0 Level AA standard as long as the Department allowed two years to achieve compliance.

The American Aviation Institute (AAI) supported the Department’s proposal to require conformance with the WCAG 2.0 Level AA, but again, only on those pages involved with providing core information and functions. The Information Technology Industry Council (ITI), representing 50 leading companies in the information and communications technology industry, urged the Department not to require any technical standard other than WCAG 2.0, stating:

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<sup>6</sup> See 36 CFR 1194.22, Note par. 2, stating that “Web pages that conform to WCAG 1.0, level A (i.e., all priority 1 checkpoints) must also meet paragraphs (l), (m), (n), (o), and (p) of this section to comply with this section.”

“WCAG 2.0 is the most current and complete standard for web accessibility and is expected to be the basis for the updated Section 508 also. For harmonization purposes, ITI strongly recommends only accepting WCAG 2.0.”

With rare exception, individual commenters who self-identified as having a disability supported WCAG 2.0 as the applicable standard for Web site accessibility. Virtually all advocacy organizations representing individuals with disabilities across the spectrum also supported WCAG 2.0, with more than half specifically endorsing the Level AA success criteria as the appropriate standard. All of the advocacy organization commenters representing individuals who are blind, deaf, or hard of hearing specifically endorsed the Level AA success criteria. ACB and AFB also urged the Department to adopt the Authoring Tools Accessibility Guidelines (ATAG) 1.0, a World Wide Web Consortium <sup>7</sup> (W3C) guideline that defines how authoring tools should assist Web developers in producing Web content that is accessible and conforms to WCAG. (ATAG will be discussed in a later section on Implementation Approach and Schedule.) There were a few comments suggesting that all Level A success criteria and only selected criteria from Level AA be required.

The leading commenters representing ticket agents (ASTA, NTA, USTOA, and ITSA) felt strongly that the Department should refrain from requiring carriers to ensure that their agent Web sites conform to the WCAG 2.0 standard or any other specific accessibility standard at this time. ITSA, in particular, advocated that the Department allow carriers, as well as agents, to adopt any acceptable standard at any compliance level. Citing the DOJ’s concurrent rulemaking concerning Web site accessibility standards applicable to entities covered under ADA title III

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<sup>7</sup> The World Wide Web Consortium is an international community that develops open standards to ensure the long-term growth of the Web. One of its primary goals is to make the benefits that the Web enables, including human communication, commerce, and opportunities to share knowledge, available to all people.

regulations,<sup>8</sup> ticket agent commenters also urged that both agencies coordinate the technical accessibility criteria each intends to apply so that Web site accessibility requirements are consistent. A number of these commenters felt that the Department should postpone imposing a Web site accessibility standard for ticket agent Web sites until the DOJ rulemaking is completed.

DOT Decision: After considering the arguments raised by the carrier and ticket agent associations to postpone requiring any standard until after the DOJ rulemaking on Web site accessibility is complete, we have concluded that there is no compelling reason to defer promulgating a WCAG 2.0 based standard applicable to the Web sites of carriers. Since WCAG 2.0 is by far the front-runner among the existing accessibility standards world-wide, and both the Access Board and the Department of Justice have sought public comment on incorporating WCAG 2.0 technical criteria into the existing section 508 standard or directly adopting the standard,<sup>9</sup> the Department believes there is ample justification for adopting WCAG 2.0 at Level AA as the accessibility standard for carrier Web sites that market air transportation to the public in the United States.

We note that well before DOT published its SNPRM in September 2011, both DOJ and the Access Board had embarked upon rulemakings that address Web site accessibility standards. The DOJ rulemakings sought comment on the standard for Web site accessibility it should adopt for entities covered by ADA titles II and III.<sup>10</sup> Specifically, DOJ asked whether it should adopt the WCAG 2.0 Level AA success criteria, whether it should consider adopting another WCAG 2.0 success criteria level, or whether it should instead adopt the section 508 standards rather than

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<sup>8</sup> 75 FR 43460-43467 (July 26, 2010).

<sup>9</sup> See 75 FR 43452-43460 (title II) and 75 FR 43460-43467 (title III) (July 26, 2010); see also 75 FR 13457 (March 22, 2010) and 76 FR 76640 (December 8, 2011).

<sup>10</sup> See 75 FR 43460-43467 (July 26, 2010).

the WCAG 2.0 guidelines as the applicable standards for Web site accessibility. In addition, the Telecommunications and Electronic and Information Technology Advisory Committee (TEITAC) recommended to the Access Board that the Section 508 standard be harmonized with WCAG 2.0.<sup>11</sup> The Access Board, in turn, sought public comment in two successive advance notices of proposed rulemaking on adopting WCAG 2.0 as the successor to the current section 508 standards for Web content, forms and applications.<sup>12</sup>

This consensus is corroborated by many indicators that WCAG 2.0 is the most robust and well supported accessibility standard currently in use. The developers of WCAG 2.0 have made an array of technical resources available on the W3C Web site at no cost to assist companies in implementing the standard.

In addition, foreign governments increasingly are adopting WCAG 2.0 Level AA either as guidelines for evaluating nondiscrimination in providing Web site access<sup>13</sup> or as the official legal standard for accessibility on government Web sites.<sup>14</sup> Australian government agencies are currently required to be compliant at WCAG 2.0 Level A and upgrade to Level AA by December 31, 2014.<sup>15</sup> In August 2011, the Canadian government adopted a requirement for government agencies to bring most content on their public Web sites into compliance with the WCAG 2.0

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<sup>11</sup> TEITAC was established in 2006 to review the existing Section 508 standards and Telecommunications Act accessibility guidelines and advise the Access Board concerning needed changes, including the need for standardization across markets globally. Its members represented the electronic information technology industry, disability groups, standard-setting bodies in the United States and abroad, and government agencies. TEITAC recommended in its 2008 final report that the Access Board seek to harmonize the Section 508 standards with the WCAG 2.0 standards to improve accessibility and facilitate compliance.

<sup>12</sup> See 75 FR 13457 (March 22, 2010) and 76 FR 76640 (December 8, 2011).

<sup>13</sup> See 76 FR 76640, 76644, nt. 4 (December 8, 2011).

<sup>14</sup> See 76 FR 76640, 76644, nt. 5 and 6 (December 8, 2011).

<sup>15</sup> See *Australian Government Web Guide*, <http://webguide.gov.au/accessibility-usability/accessibility/> (last visited July 2, 2013).

Level AA standard by July 31, 2013.<sup>16</sup> The Canadian government also released a resource tool in March 2013, to assist air terminal operators in implementing the government's voluntary Code of Practice on accessibility of non-national airports system air terminals.<sup>17</sup> The guidance recommends that terminal operators conform their Web sites to the WCAG 2.0 standard. All official Web sites of the European Union institutions are currently expected to follow the WCAG 1.0 guidelines for accessible Web content, and the EU Commission has proposed to require 12 categories of EU public sector Web sites to meet WCAG 2.0 at Level AA by December 31, 2014.<sup>18</sup> Hong Kong government sites are currently required to meet the WCAG 2.0 at Level AA.<sup>19</sup> New Zealand government sites must meet the same standards by July 1, 2017, with some limited exceptions.<sup>20</sup> France and Germany have national standards that are based on, but not identical to, WCAG 2.0 (Level AA), while United Kingdom government Web sites are required to comply with either WCAG 1.0 or 2.0 at the AA level.<sup>21</sup> The European Telecommunications Standards Institute (ETSI) is seeking public comment on a draft proposal to adopt harmonized accessibility standards for European public information and communication technology (ICT)

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<sup>16</sup> See *Government of Canada Standard on Web Accessibility*, <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&id=23601> (last visited July 2, 2013).

<sup>17</sup> See *Accessibility of Non-National Airports System Air Terminals: Code of Practice*, <http://www.otc-cta.gc.ca/eng/publication/accessibility-non-national-airports-system-air-terminals-code-practice> (last visited August 26, 2013).

<sup>18</sup> See *Directive of the European Parliament and of the Council on the Accessibility of Public Sector Bodies' Websites*, <http://ec.europa.eu/digital-agenda/en/news/proposal-directive-european-parliament-and-council-accessibility-public-sector-bodies-websites> (last visited July 2, 2013).

<sup>19</sup> See *Guidelines on Dissemination of Information Through Government Websites*, [http://www.ogcio.gov.hk/en/community/web\\_accessibility/doc/disseminationguidelines.pdf](http://www.ogcio.gov.hk/en/community/web_accessibility/doc/disseminationguidelines.pdf) (last visited July 2, 2013).

<sup>20</sup> See New Zealand Government (Web Accessibility Standard 1.0), <https://webtoolkit.govt.nz/standards/web-accessibility-standard/> (last visited July 2, 2013).

<sup>21</sup> See Powermapper Software Blog, *Government Accessibility Standards and WCAG 2.0*, <http://blog.powermapper.com/blog/post/Government-Accessibility-Standards.aspx> (last visited July 9, 2013).

procurements that specifically proposes WCAG 2.0 Level AA as the Web content accessibility standard.<sup>22</sup>

The Department considered requiring conformance with WCAG 2.0 Level A success criteria only, which are feasible standards for Web developers and would ensure the removal of major accessibility barriers. Level AA, however, contains additional guidelines and recommendations that provide a more comprehensive level of Web site accessibility for people with various types of disabilities. Examples of Level AA success criteria that provide additional access beyond what Level A provides include minimum contrast ratios for regular and large text, capability to resize text, consistent order of the navigation links that repeat on Web pages when navigating through a site, and the availability of multiple ways for the users to find Web pages on a site. As the foregoing discussion on government Web site accessibility standards indicates, the Level AA success criteria are widely regarded as feasible for Web content developers to implement. Moreover, the Level AA success criteria appear to be most often specified when conformance with WCAG is required and are most often adopted when Web sites voluntarily use WCAG.<sup>23</sup> Level AAA success criteria, while providing a high level of accessibility, are not recommended for entire Web sites because they are much more challenging to implement and all criteria cannot be satisfied for some Web content.<sup>24</sup> For these reasons, the Department is persuaded that Level AA is the compliance level that can provide the highest practicable level of Web site accessibility.

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<sup>22</sup> See Draft EN 301 549 V1.0.0, *Human Factors (HF); Accessibility Requirements for Public Procurement of ICT products and services in Europe*, (2013-02). The public comment period on the draft closes July 28, 2013.

<sup>23</sup> See *WCAG 2.0 Overview*, <http://www.evengrounds.com/wcag-tutorial/overview> (last visited July 2, 2013).

<sup>24</sup> See Web Content Accessibility Guidelines (WCAG) 2.0, <http://www.w3.org/TR/WCAG/> (last visited August 22, 2012.)

Regarding the carrier associations' assertion that requiring airlines to comply with the WCAG 2.0 standard sets "a very high bar that exceeds federal government website accessibility requirements," we believe they overstate the actual differences between the section 508 and WCAG 2.0 standards. From a practical standpoint, WCAG 2.0 success criteria largely standardize best practices that were developed in response to the requirements of the current section 508 standards. In addition, WCAG 2.0 success criteria that do not correspond to the current section 508 standards were developed to address perceived gaps and deficiencies in the current section 508 standards. Overall, the WCAG 2.0 success criteria spell out more specific requirements for aspects of the Web site coding function than section 508 provides, such as consistent identification of functional elements that repeat across Web pages, specific standards for color contrast, multimedia player controls, and compatibility with assistive technology.

## 2. Usability and Performance Standards

The SNPRM: In the September 2011 SNPRM preamble, we asked for comment on whether we should adopt a performance standard in lieu of or in addition to the proposed technical standards in the final rule, as well as on the types and versions of assistive technologies to which performance standards should apply. We also sought comment on the feasibility and value of requiring airlines to seek feedback from the disability community on the accessibility of their Web sites through periodic monitoring and feedback on their usability. In addition, we wanted to know whether the Department should require carriers to develop guidance manuals for their Web site developers on implementing the WCAG 2.0 standard so that their Web sites are functionally usable by individuals with disabilities.

Comments: Disability advocacy organizations strongly urged the Department to adopt a set of performance standards in addition to the WCAG 2.0 Level AA technical standard. ACB

and AFB advocated the adoption of a general performance standard consistent with the broader accessibility standard of effective communication articulated in the DOJ ADA title II and III regulations.<sup>25</sup> They argued that mere compliance with the technical standards would not be enough to ensure that Web sites would be fully accessible to people with disabilities. NFB, ABC, NCIL, CCD, and BBI also supported pairing the WCAG technical standard with a performance standard to ensure accessibility and usability by a range of individuals with sensory, physical, and cognitive disabilities. Acknowledging the difficulty of measuring performance standards, NCIL suggested several possible measures, including the rate of success of users with disabilities in accomplishing various tasks on the Web site, the average time it takes for a group of users with disabilities to accomplish a task as compared to a group of non-disabled users, and required compatibility of a Web site with the most widely used accessibility software and technologies to ensure usability by as many people as possible.

While most industry commenters did not specifically address performance standards, the carrier associations opposed the adoption of any kind of prescriptive standard, including specific performance standards. ITSA noted that making Web pages accessible involves performance trade-offs and that imposing rigid performance standards would result in costs and technical challenges that may not be feasible. The Cornell e-Rulemaking Initiative (CeRI), an academic initiative working to facilitate public comment on DOT rulemakings, sought to conform its Web site to WCAG 2.0 at Level AA in preparation for soliciting public comments on DOT's rulemaking on Web site and kiosk accessibility. Their experience led them to conclude that applying performance standards broadly may have limited usefulness. They note, for example, that performance standards are typically developed based on a specific version of a specific

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<sup>25</sup> The Department of Justice requires covered entities to ensure effective communication through auxiliary aids and services that are “provided in accessible formats, in a timely manner, and in such a way as to protect the privacy and independence of the individual with a disability.” See 28 CFR 35.160 (b) and 28 CFR 36.303(c)(1)(ii).

assistive technology used to access Web sites and therefore are not useful for testing earlier versions of the technology (e.g., a Web site that meets a performance standard accessed by a user with the latest version of JAWS screen reader software may not meet the performance standard if accessed using an earlier version of the software). They also noted that with regard to specific assistive technologies, compatibility with evolving technical standards and user proficiency has an impact on whether performance standards are helpful in testing the usability of a Web site. ITI expressed concern about the many questions related to specific combinations of browsers, operating systems, assistive technologies, and disability types that would need to be considered and the cost impact of developing and testing specific performance standards. As an alternative, ITI suggested introducing a mechanism for end users of a Web site that already meets the WCAG 2.0 technical standard to be able to report on specific accessibility issues encountered on that Web site.

BBI supported a requirement for carriers to develop internal guidance manuals, pointing out that such documents are useful for training new or temporary employees on implementing the standard and preventing new accessibility barriers on the Web site. CCD stated that DOT should act now to develop guidance for carriers on how to implement technical accessibility standards so that their Web sites will be functionally usable. DRNJ, on the other hand, noted that since a substantial amount of free training and guidance materials are presently available online, a requirement for each carrier to develop its own guidance manual would appear to be unnecessary. They recommended that if there is a need for airline-specific material, the Department should contract with a university or other provider to create a national center for training and technical assistance. The carrier associations felt that requiring carriers to produce a

guidance manual would further burden staff members already busy implementing other passenger protection requirements.

DOT Decision: The Department is persuaded that adopting specific performance standards at this time is premature. We strongly believe that specific measures to ensure the usability of Web sites that meet the WCAG 2.0 standard are necessary, however. We therefore are requiring carriers to consult with members of the disability community to test and provide feedback on the usability of their Web sites before the applicable compliance deadline. A carrier is not required to pay a group or individual representing a disability type to test its Web site. Although we believe that it is very unlikely that a carrier would be completely unable to find anyone with whom to consult, if after making a reasonable effort a carrier is unable to find a person or group representing a disability type that will test the carrier's Web site at no expense to the carrier and within a reasonable time period, the carrier has fulfilled its obligation with respect to the requirement.

It is worth noting that the Department has required consultation with disability organizations in implementing certain provisions of its disability regulation (14 CFR part 382) since March 1990. In the March 1990 final rule, the Department mandated that airlines consult with organizations representing persons with disabilities in developing their employee training programs. In the preamble to this 1990 final rule, we explained that “[t]he Department continues to believe that disability groups are a major resource for carriers, to help them devise practical and comprehensive procedures for accommodating passengers with a wide variety of disabilities. Consultation basically means making reasonable efforts to obtain the views of disability organizations: there is no list of organizations or type of contacts that the rule specifically mandates.” See 55 FR 8008, 8043 (March 6, 1990).

More recently, we refined this requirement in the May 2008 final rule in response to concerns raised by foreign carriers. In their comments on the 2004 Foreign Carriers NPRM, some foreign carriers objected to consulting with disability groups, saying that the requirement should be waived if they could not find a local disability group to consult. Disability groups responded to these comments by suggesting that such a waiver was unnecessary because the U.S.-based staff of the airline could consult with U.S. groups if necessary. The following excerpt from the preamble to the 2008 final rule discusses the Department's decision regarding changes to the consultation requirement: "While U.S. disability groups can undoubtedly be a useful resource for both U.S. and foreign carriers, we do not believe it would be realistic to require foreign carriers to seek out U.S. disability groups for consultation (in many cases, U.S.-based personnel of these carriers would be operations staff, not management and training officials). Consequently, we have modified the language of this provision to refer to seeking disability groups in the home country of the airline. If home country disability groups are not available, a carrier could consult individuals with disabilities or international organizations representing individuals with disabilities. We do not believe that a waiver provision is needed, since it is unlikely that a carrier would be completely unable to find anyone—home country or international disability groups, individuals with disabilities—with whom to consult. As a matter of enforcement policy, however, the Department would take into consideration a situation in which a carrier with an otherwise satisfactory training program documented it had made good faith efforts to consult but was unable to find anyone with whom to consult." 73 FR 27614, 27643 (May 13, 2008). The Department also already requires U.S. and foreign carriers to consult with local service animal training organization(s) in providing animal relief areas for service animals at U.S. airports.

Similarly, in this final rule, the Department is requiring carriers to consult with individuals with visual, auditory, tactile, and cognitive disabilities or organizations representing these disability types (e.g., American Federation of the Blind, National Federation of the Blind, National Association of the Deaf, Arthritis Foundation, United Cerebral Palsy, The Arc, etc.) in testing the usability of their Level AA-compliant Web sites. Carriers may consult with any individuals and/or local, national, or international disability organizations whose input collectively can help them determine how effectively their accessible Web site addresses the functional limitations of people with visual, auditory, tactile, and cognitive disabilities. To the extent that individuals on a carrier's disability advisory board represent these disability types, the carrier may consult with those individuals to satisfy the requirement. For disabilities of the types listed above that are not represented on their advisory boards, carriers will be obliged to consult with outside individuals or organizations representing those disability types. We believe that it is very unlikely that a carrier would be completely unable to find anyone with whom to consult—either unaffiliated individuals with disabilities or members of a home country or international disability group—that represent these disability types and who use or want to use a carrier's Web site. As a matter of enforcement policy, however, the Department would take into consideration a situation in which a carrier documented that it had made good faith efforts but was unable to find a group or individual willing or able to consult within a reasonable time period. While the consultation requirement does not mandate that carriers modify their Web sites using all the feedback obtained from the consultations, we encourage carriers to make any changes necessary to ensure access by people with these functional limitations to the extent that such changes are not unduly burdensome to implement.

We note that although the WCAG 2.0 standard is geared to making Web sites accessible to a wide range of individuals with disabilities, the developers of WCAG 2.0 emphasize that the guidelines are not able to address the needs of people with all types, degrees, and combinations of disability. Some disability advocates have criticized WCAG 2.0 as falling short in providing equal accessibility for individuals with cognitive disabilities.<sup>26</sup> These advocates observe that certain WCAG 2.0 Level A and Level AA success criteria target certain accessibility issues such individuals face (e.g., Success Criterion 2.2.1 – Adjustable Timing, 2.4.7 – Focus Visible such that any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible, 3.3.1 - Error Identification, 3.3.3 – Error Suggestion, and 3.3.4 – Error Prevention). The advocates note, however, that the most significant issues such as difficulty comprehending text are addressed by optional Level AAA success criteria. Those criteria include Success Criterion 3.1.5 – Reading Level that requires supplementary content or a version of the content that does not require reading ability greater than lower secondary level, and Success Criterion 1.4.8 – Visual Presentation requiring unjustified text, text width no more than 80 characters, line spacing of at least one and a half lines within paragraphs, capabilities for users to select text and background colors and resize text up to 200%, and other features to assist with difficulties in tracking and comprehending text. With nearly 5% of the U.S. population reporting some kind of cognitive disability in 2011,<sup>27</sup> the Department acknowledges that even the best accessibility standards currently available fall short of providing the accessibility needed by many individuals with cognitive impairments. We are nonetheless encouraged that the WCAG

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<sup>26</sup> Richardson, Allie (November 29, 2011). *Those WCAG Forgot: Designing for the Cognitively Disabled*. Retrieved July 16, 2013 from <http://orange.eserver.org/issues/7-2/richardson.html>.

<sup>27</sup> Erickson, W., Lee, C., von Schrader, S. (2013). Disability Statistics from the 2011 American Community Survey (ACS). Ithaca, NY: Cornell University Employment and Disability Institute (EDI). Retrieved July 16, 2013 from [www.disabilitystatistics.org](http://www.disabilitystatistics.org).

developers recognize these needs and support additional measures to advance cognitive, language, and learning access that can be taken within WCAG 2.0 itself and other ways that go beyond what can go into the standard.<sup>28</sup> As efforts to improve accessibility for different kinds of disabilities continue, usability testing with individuals representing a variety of disabilities will help in the interim to improve access until measurable success criteria to address specific unmet needs can be developed. We believe that the usability testing strikes a balance between taking reasonable steps to ensure usability, while limiting the potentially significant costs of meeting performance standards having minimal usefulness to individuals with disabilities. The Department encourages disability advocacy organizations to work with carriers to provide Web site usability feedback, both during the development and testing process and after the accessible Web site has been published.

With regard to adopting a requirement for carriers to develop guidance manuals, the Department concurs that the benefits do not outweigh the costs. There is an abundance of readily available guidance on the W3C Web site with detailed information on implementing and testing each of the technical criteria for each WCAG 2.0 conformance level. In addition, consultation with members of the disability community on the usability of conformant Web sites will enhance the available technical guidance and ensure that carriers have practical feedback to guide their efforts. As Web content is updated and Web development standards evolve, we encourage carriers to continue soliciting feedback from users with disabilities as the best way to ensure the ongoing accessibility and usability of their Web sites.

### 3. Scope – Web Sites and Other Electronic Information and Communication Technologies

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<sup>28</sup> Clark, Joe (November 26, 2006). *Letter of invitation re cognitive language and learning aspects of WCAG 2.0*. Retrieved July 16, 2013 from <http://joeclark.org/access/webaccess/WCAG/cognitive/message061122.html>.

The SNPRM: Our proposal to require carrier Web site accessibility was limited to all public-facing content on a carrier's primary Web site marketing air transportation to the general public in the United States. We did not propose to apply the accessibility standard to any other Web site a carrier may own, lease, or control (e.g., a mobile Web site) or to primary carrier Web sites marketing flights exclusively to the public outside of the United States. The Department asked for comment on whether we should limit the requirement to certain portions of the primary Web site (e.g., booking function, checking flight status), whether the requirements should extend to mobile carrier Web sites and to other electronic information technologies (e.g., e-mail or text messaging) used by carriers, and whether any third-party software downloadable from a carrier's Web site should be required to be accessible.

#### Covered Content on Primary Web Sites

Comments: Regarding the scope of the Web site accessibility requirements, in general the carrier associations and several individual carriers advocated limiting the scope to pages on the primary Web site or on a mobile Web site involved in booking air transportation. The carrier associations, which strongly advocated for flexibility and alternative approaches to making Web sites accessible, urged the Department to consider four options for providing Web site accessibility from which carriers could choose. The first option was a text alternative Web site that would provide only the core air travel information and services (not all of the public-facing content) offered on the primary Web site. The second option would also provide only core air travel information and services on a mobile Web site that meets the MWBP 1.0 standard and is accessible from a link on the primary Web site or that automatically loads on a Smartphone or other mobile device. The third option would allow a carrier to make the Web pages that provide core air travel information and services on a primary Web site accessible using any Web

accessibility standard. The fourth option would only require carriers to make newly created Web pages on a primary Web site accessible using any Web accessibility standard starting two years from the final rule effective date. None of the options suggested by the carrier associations would require that all public-facing content on a primary Web site be accessible, although the fourth option might eventually lead to that result. Commenters who supported flexibility and carrier choice also expressed the view that fewer compliance options would inhibit carrier innovation and use of new technologies, limit Web site utility for all passengers, and result in an undue burden for the industry. Other industry commenters such as AAI supported the WCAG 2.0 accessibility standard, but also favored an approach that would limit the public-facing content on a primary Web site that must meet that standard. Some commenters who supported limiting the scope of covered primary Web site content argued that the cost of making large numbers of infrequently visited pages accessible will outweigh any benefit to the few people with disabilities who might visit them. Others argued that providing the core air travel functions in an accessible format on a mobile or text alternative Web site was a reasonable solution because it would be less costly than making their primary Web sites accessible and still provide passengers with disabilities essential air transportation service information. We note that carriers generally were in agreement with the core air travel information and services listed in the second tier of the phased compliance schedule proposed in the September 2011 SNPRM and to applying some accessibility standard to all associated Web pages. One carrier that did not support applying accessibility standards to carrier Web sites suggested that carriers be required to provide a phone number to an accessible phone line where equivalent information and services could be obtained. In its view, this was the best alternative because it would provide personalized service to

passengers with disabilities and avoid the imposition of high Web site conversion costs on carriers.

Disability advocacy organizations and individuals who self-identified as having a disability unanimously supported the Department's proposal to require that all public-facing content on a carrier's primary Web site be accessible. A few commenters who self-identified as having disabilities did not oppose the use of text-only Web sites for achieving accessibility, but none supported access to anything less than all public-facing content on a carrier's Web site. ITI, the association of leading information and communication technology companies, stated unequivocally that the complete Web site (all public-facing content on a carrier's primary Web site versus only portions necessary to providing core air travel services and information) should comply with the WCAG 2.0 standard at the conclusion of the implementation period. The majority of individual commenters identifying as having a disability and all commenters representing disability advocacy organizations were also adamantly against the use of text-only Web sites as an alternative to making the primary Web site accessible. Their reasons for opposing the text-only sites will be explained in the discussion on conforming alternate versions later in this preamble.

DOT Decision: The Department considered the arguments raised by carriers and carrier associations in support of compliance options that limit the scope of primary Web site content that must be accessible. While the proposed options would undoubtedly result in cost savings to carriers, they are not the only way to reduce the cost of making Web sites accessible. Moreover, and most importantly, such options are not acceptable because the purpose of requiring Web site accessibility is to attempt to ensure that passengers with disabilities have equal access to the same information and services available to passengers without disabilities. Therefore, the

Department has decided to retain in the final rule the requirement we proposed that public-facing content on a carrier's primary Web site marketing air transportation to the general public in the United States must be accessible. The statutory definition of air transportation includes interstate transportation or foreign air transportation between a place in the United States and a place outside of the United States. See 49 U.S.C. 40102 (a) (5). For a carrier whose primary Web site markets (i.e., advertises or sells) air transportation to the general public in the United States this generally means that all public-facing Web content is covered. For a carrier whose primary Web site markets air transportation as defined above and other flights to the general public in and outside of the United States, only public-facing content on the Web site marketing air transportation to the general public in the United States must be accessible. We recognize that some technical difficulty may be involved for foreign carriers applying the accessibility standard to Web sites marketing air transportation to the public in the United States that draw on data sources not required to be accessible under our rules. We are not convinced; however, that the effort to ensure the data from such sources can be used on the covered Web site will involve such significant expense as to cause an undue burden. At the same time, there is no requirement for carriers to make Web pages that market air transportation to the general public outside of the United States on a covered Web site accessible. Therefore, for covered Web sites that market both air transportation as defined above and other flights not within the scope of this rule, we expect carriers to do what is necessary to render Web pages marketing air transportation to the general public in the United States accessible. Carriers will have to decide the best approach to making the covered Web content accessible based on their business priorities and available resources. As a practical matter, we recognize that the most technically efficient and cost effective way to ensure that covered pages meet the accessibility standard may be for carriers to

make all Web pages accessible on a Web site that markets air transportation to the general public both inside and outside of the United States and/or markets flights not covered by the rule.

Therefore, we encourage carriers to bring Web pages covered by the accessibility requirements into compliance with the WCAG 2.0 Level AA standard using the technical approach that is most feasible for them given the content and infrastructure architecture of their Web sites.

#### Mobile Web Sites, Mobile Apps, and Other Electronic Communication Technology

The SNPRM: The Department sought comment on whether carriers should be required to ensure that their mobile Web sites meet the WCAG 2.0 standard at Level AA or follow the W3C's MWBP 1.0, or both. We asked whether carriers should be required to ensure that any third party software downloadable from a link on the carrier's Web site (e.g., deal finding software) is accessible and to ensure other carrier-initiated electronic communications such as reservation confirmations, flight status notifications, and special offer e-mails are accessible. We also requested input on the costs and technical feasibility of ensuring that such content is accessible.

Comments: The Department received a number of responsive comments to our questions about the accessibility of mobile Web sites and other electronic information and communication technologies. Several advocacy organizations for individuals with vision impairment were pleased that the Department had acknowledged that primary Web sites represent only a portion of the air travel-related electronic information and communication that pose barriers to people with disabilities. These organizations strongly urged the Department to go further and require carriers to ensure that their mobile Web sites and other technologies used for electronic customer interface (e.g., e-mail, text messages, and mobile applications) are accessible. Some commenters representing advocacy organizations urged the Department to require carriers to make their

mobile Web sites conform to the W3C's MWBP, while others urged us to require mobile Web sites to conform to the same WCAG 2.0 Level AA standard as primary Web sites. Regarding mobile applications (apps), while some of these commenters acknowledged that most mobile phones are not yet fully accessible to blind and other visually impaired users, they felt strongly that mobile apps may overtake Web sites and kiosks as the method of choice for looking up flight information, selecting seats, checking in, etc. within the next few years. They urged the Department to require carriers to ensure that their apps are compatible with the built-in or external assistive technologies that individuals with disabilities use. Specifically, they asked us to require carriers to meet the accessibility standards developed by operating system developers (e.g., Apple's Human Interface Guidelines for mobile apps designed for Apple's iOS mobile operating system) or another recognized standard known to be compatible with available external assistive technology. As discussed earlier, a few of these commenters also urged the Department to adopt in 14 CFR part 382 DOJ's "effective communication" standard under ADA titles II and III and require accessibility of all electronic information and communication technologies used by carriers to interface with their customers. NCIL advocated that the Department take a stronger stance in its rulemakings to reflect the broader rights of people with disabilities to technology access as described in Section 508. By way of comparison, they observed the efforts of government agencies to effectively communicate with people from diverse cultural backgrounds by making their regulations and guidance documents available in multiple languages on agency Web sites, through printed media, and via interpreters on the telephone. NCIL believes that the same concentrated and sustained effort to include people with disabilities is overdue. They further regard failure to move in the direction of greater access for people with disabilities across the spectrum of electronic information and communication technologies as

“unacceptable, unfair, and discriminatory” stating: “...mandates for accessibility of Web sites ... [are] long overdue; DOT must not make the same mistake by neglecting to address mobile apps until several years from now.”

Carrier associations and individual carriers generally supported applying an accessibility standard to mobile Web sites only when the mobile Web site is the platform for making the content of a carrier’s primary Web site accessible. They acknowledged that mobile Web sites typically do not contain all the content of primary Web sites. ITSA encouraged us to adopt a flexible standard for mobile Web sites (e.g., the W3C’s MWBP). In general, industry commenters either expressed opposition or did not comment on our questions regarding accessibility of other electronic information and communication technologies used by carriers to interface with their customers.

DOT Decision: The Department unequivocally supports full accessibility of all electronic information and communication technologies used by the air transportation industry to interface with its customers. We believe that certain factors, however, preclude introducing new accessibility requirements for electronic information and communication technologies other than Web sites at this time. Four factors weighed most heavily in our decision: 1) no accessibility standard specifically for mobile Web sites exists at this time; 2) accessibility standards such as WCAG 2.0 cannot be readily applied to mobile applications designed for mobile platforms that are not accessible; 3) most mobile devices currently on the market are not accessible to individuals who are blind or visually impaired; and 4) the need to focus carrier attention and resources on bringing existing Web sites into compliance with WCAG 2.0 Level AA. We believe the best approach to expanding accessibility of electronic information and communication technology in the air travel industry is to allow carriers to focus their resources on bringing the

covered public-facing content of their primary Web sites into full compliance with the WCAG 2.0 Level AA standard. As they do so, they will acquire expertise and develop technical efficiencies in implementing the standard. We have decided, therefore, not to require that mobile Web sites, e-mail, text messaging, mobile apps, and other electronic communication technologies be accessible at this time. Nonetheless, we encourage carriers to develop their mobile Web sites in conformance with the W3C's current MWBP until such time as a standard for mobile Web sites is developed and adopted. We also encourage carriers to immediately begin incorporating accessibility features into e-mail, text messaging, and other information and communication technologies they use to the extent feasible. Doing so will immediately and incrementally increase access to those technologies for individuals with disabilities. In addition, it may make compliance with any accessibility standard the Department may require for such technologies in the future easier and less costly.

Embedded Inaccessible Third-Party Plug-In Applications and Links to Inaccessible External Web Sites and Applications

Comments: Carrier Web sites may contain content that can only be read using a software application owned and developed by a third party. Such applications may be hosted (embedded) on the carrier's Web site, or the Web site may contain a link to an external Web site where the application resides. In the September 2011 SNPRM, the Department sought comment on whether third-party software downloadable from a carrier's Web site (embedded) should be required to be accessible. The carrier associations opposed any such requirement, reiterating their position that the Department should regulate the entities providing the software directly when it is within the scope of its authority to do so. Disability advocacy organizations

commenting on the issue urged the Department to require carriers to ensure that downloadable third-party software is accessible. These commenters pointed out that any contracts carriers have with the entities producing such software should contain a provision requiring that it meet the WCAG 2.0 standard. They specifically noted that section 382.15(b) requires carriers contracting for services that must be provided under Part 382 to ensure that the contracts stipulate that the vendor provide the service in accordance with Part 382. They reasoned that if Part 382 requires a carrier's public-facing Web content to be accessible, and the carrier contracts with a third party to provide downloadable software on its Web site, the contract must stipulate that the software meets the WCAG 2.0 standard. In addition, they urged the Department to require carriers to work proactively with the producers of inaccessible software that resides on an external Web site but can be reached from a link on the carriers' Web sites to repair any accessibility issues.

DOT Decision: The Department has considered the impact on Web site accessibility of various scenarios involving inaccessible third-party software embedded on a carrier's Web site and links to inaccessible Web sites or software that reside on an external Web site. In the case of an inaccessible third-party software, such as a deal finder software, embedded directly on a carrier's Web site, the Department believes that allowing exceptions for such software on an otherwise accessible Web site could significantly undermine the goal of equivalent access to Web site information and services for people with disabilities. Many companies today sell off-the-shelf Web software (e.g., JavaScript menus) used by Web site authors. A general exception allowing carriers to embed inaccessible plug-in software developed by third parties on an otherwise accessible Web site over time could result in significant portions of Web sites being excepted from compliance with the WCAG 2.0 standard.

The Department believes it is incumbent on carriers that intend to host third-party software of any kind on their Web sites to work with the developers to ensure that such software meets the WCAG 2.0 standard. This rule does not, however, prohibit a carrier from having links on its primary Web site to external Web sites and third-party software that are partially or entirely inaccessible. Such links are acceptable so long as there is a mechanism on the carrier's Web site informing the user that the third party software or external Web site may not follow the same accessibility policies as the primary Web site. For example, if a carrier's Web site has links to inaccessible external Web sites containing information and consumer comments about the carrier's services (e.g., social media Web sites such as Facebook, Twitter, and YouTube), the carrier must provide a disclaimer when the link is clicked informing the user that the external Web site is not within the carrier's control and may not follow the same accessibility policies (See links to Facebook, Twitter, and YouTube on the Social Security Administration home page <http://ssa.gov>). While this approach is acceptable, we urge carriers generally to avoid linking to external resources that are known to be inaccessible and to work with the authors of the external sites whenever possible to develop accessible modules. For example, Facebook, Twitter, and YouTube have collaborated successfully with the Web site developers of certain government agencies to provide an accessible interface for agency-related content (e.g., see links to Facebook, Twitter, and YouTube on the homepages of the Department of Education at <http://ed.gov> and the Department of Homeland Security at <http://dhs.gov>).

#### 4. Applicability

The SNPRM: We proposed to apply the WCAG 2.0 Web site accessibility standard to U.S. and foreign carrier primary Web sites that market (i.e., advertise or sell) air transportation to the general public in the United States. We asked whether the requirements should apply to the

Web sites of the largest U.S. and foreign air carriers only (e.g., those that operate at least one aircraft with more than 60 seats), of carriers that offer charter service only, and of carriers that advertise air transportation but do not sell airline tickets. As discussed above, the Department also proposed to require both U.S. and foreign carriers to ensure the accessibility of Web sites owned or controlled by agents that are not small business entities and to permit carriers to market on the inaccessible Web sites of small ticket agents, if they ensure that those small agents make Web-based discount fares and amenities available to passengers who indicate they are unable to use the agent's Web site. We sought comment on whether we should directly require ticket agents to ensure the accessibility of their Web sites under 49 U.S.C. 41712, rather than indirectly through the carriers. We also proposed to require that carriers disclose (and make available to sell) Web-based discounts and waive telephone or ticket counter reservation fees for customers indicating that due to a disability they are unable to use a carrier's inaccessible Web site (before the Web site conversion deadline). Finally, since individuals with certain disabilities (e.g., deaf-blind) may not be able to use a Web site that meets the WCAG 2.0 standard at Level AA without assistance, we proposed to require carriers to disclose and make available Web-based discounts and waive telephone or ticket counter reservation fees for customers indicating that due to a disability they are unable to use the carrier's accessible Web site after the Web site conversion deadline.

#### Applicability to Carrier Web Sites

Comments: Overall, the majority of commenters favored our proposal to apply the Web site accessibility requirements to primary carrier Web sites that market air transportation to the general public in the United States. Despite their disagreements with the proposed technical standard, the scope of covered Web site content, and the implementation time frame, both U.S.

and foreign carriers were nearly unanimous in supporting the concept of carrier Web site accessibility. There were some comments, particularly among industry commenters, in favor of limiting applicability of the Web site accessibility requirements based on carrier size or Web site function.

The carrier associations who commented jointly urged the Department to apply the accessibility standard only to carrier Web sites that offer and sell air transportation. In their view, carrier Web sites that advertise air transportation but do not sell airline tickets should be excluded from coverage. Condor Flugdienst noted that foreign carriers operating a small number of weekly flights to and from the United States should be permitted an alternative means of compliance rather than having to make an investment in Web site accessibility similar to that of foreign carriers that operate more frequent covered service. All Nippon (ANA) concurred with the notion that basic information on carrier Web sites should be accessible to consumers with disabilities but stated that revising its Web sites targeting only U.S. consumers is impractical because all its Web sites (e.g., targeting Japan, Asia, Europe) draw on common data sources. The Regional Airline Association asserted that compliance costs for smaller carriers operating aircraft with 60 or fewer passenger seats would far outweigh the benefits but did not explicitly support excluding Web sites based on carrier size. One industry commenter suggested that DOT should exclude small or very small carriers with inaccessible Web sites from the accessibility requirements as long as the large partner carriers handling online ticket sales, check-in, etc., on their behalf also host on their own accessible Web sites the core air travel information and services available on the smaller airlines' inaccessible Web sites. There were very few comments by individual members of the public and none by commenters representing the disability community in favor of excluding any primary carrier Web sites from coverage.

Carriers raised no objections to the provisions to require disclosure of Web-based discounts and amenities and waiver of reservation fees not applicable to other customers for individuals with disabilities who notify the carrier that they are unable to use a Web site due to their disability. Some pointed out that this service is already required by Part 382 so compliance would not pose any additional burden. Others expressed the view that this provision by itself would meet the service needs of customers with disabilities without imposing the cost of compliance with the WCAG standard.

Several disability commenters, however, expressed dissatisfaction with the disclosure and fee waiver measures currently required by the Department when a carrier's Web site is not accessible. These commenters maintained that carriers frequently do not provide the discount information or do not waive reservation fees even when the individual identifies as having a disability. In 2010, Dr. Jonathan Lazar and students at the Department of Computer and Information Sciences of Towson State University conducted a study involving test calls to major carriers to determine how consistently carriers comply with these requirements. Their findings suggested that there are compliance problems. After placing a series of 60 phone calls (15 calls to each of 4 major carriers), students who self-identified as blind and specifically stated that they were unable to access the carrier's Web site noted at least one instance per carrier of price discrimination (e.g., discounted Web-based fares offered online were not disclosed to the caller or the agent refused to waive the telephone reservation fee). The rate of compliance failure was as high as 33 percent and 40 percent respectively for two carriers.<sup>29</sup>

DOT Decision: After carefully considering the concerns and compliance alternatives proposed by commenters, the Department has decided to require U.S. and foreign carriers that

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<sup>29</sup> Lazar, Jonathan. "Up in the air: Are airlines following the new DOT rules on equal pricing for people with disabilities when websites are inaccessible?" *Government Information Quarterly*. 27.4 (October 2010): 329-336. Web. 26 June 2012 <http://www.sciencedirect.com/science/article/pii/S0740624X10000638>

operate at least one aircraft with a seating capacity of more than 60 passengers to apply the WCAG 2.0 Level AA standard to their primary Web sites that market air transportation to the general public in the United States regardless of the carrier's type of passenger operations (e.g., charter or scheduled), or in the case of foreign carriers, the frequency of covered flights. We note here that whenever we reference aircraft passenger seating capacity in this or other economic or civil rights aviation rulemakings, we are referring to an aircraft's seating capacity as originally designed by the manufacturer. This requirement includes the primary Web sites of any such carriers that advertise on that site but do not sell air transportation there. For carriers that only advertise air transportation or their role as providers of air transportation (e.g., contract carriers) on their Web sites, compliance will be less technically complex and costly than for carriers that also sell airline tickets. For foreign carriers for whom air transportation to and from the United States is a small percentage of their overall operations, some additional complexity may be involved to convert data drawn from databases that are not covered by Part 382. But as we discussed earlier, the data conversion involved does not, in our view, constitute an undue burden.

On the other hand, we have decided to exclude small carriers (defined as those exclusively operating aircraft with 60 or fewer seats) from the requirement to make their primary Web sites accessible because of concerns about cost burden. When we proposed to require all carriers, regardless of size, to make their Web sites accessible, our research indicated that the majority of small carriers operated fairly simple Web sites that do not offer online booking, check-in or flight status updates. In updating our research for the final regulatory evaluation, we found that the Web sites of many smaller carriers have added online booking engines, one of the more difficult Web site functions to make accessible. As such, we believe that the additional

cost to comply with the accessibility standard and maintain their Web site's accessibility would be substantial for small carriers. At the same time, the benefit for consumers would be small as only a few carriers exclusively operate aircraft with 60 or fewer seats. We therefore agree with the Regional Airline Association that the additional compliance costs for these small carriers are likely to outweigh the additional benefits to consumers from slightly increasing the number of carriers subject to these requirements.

To address carrier sites that are inaccessible to an individual with a disability before or after the Web site accessibility deadline, we retain the provisions requiring carriers to disclose Web-based discounts applicable to the individual's itinerary and waive fees applicable to telephone or ticket counter reservations for individuals who contact them through another avenue to make a reservation and indicate they are unable to access the Web site due to a disability. If the carrier charges a fee for Web site reservations that applies to all online reservations, the carrier may charge the same fee to a passenger with a disability requesting a reservation for a Web-based fare. We have noted earlier the commenter assertions and the Lazar study findings that some carriers do not consistently make Web-based discounts available or waive telephone or ticket counter reservation fees for those unable to use an inaccessible Web site. Therefore, we encourage carriers to ensure that their customer service staff is properly trained to comply with these requirements, as failures in this regard could result in enforcement action. We also encourage individuals with disabilities to immediately request a complaints resolution official (see 14 CFR 382.151) when they encounter any difficulties obtaining the required accommodation.

#### Ticket Agent Web Sites

Comments: All carrier associations and individual carriers commenting on the provision to require carriers to ensure the accessibility of ticket agent Web sites strenuously opposed it and most urged the Department to regulate ticket agents directly. These commenters cited significant added costs to carriers in order to monitor ticket agent Web sites and a lack of leverage on the carriers' part to make the agents comply. ANA also sought clarification of the provision that carriers must ensure compliance with the accessibility standard on ticket agent "Web pages on which [their] airline tickets are sold." They wanted to know the extent of a carrier's obligation to ensure accessibility on agent Web pages, which in addition to the carrier's fares, display special offers and advertise travel components (e.g., hotel bookings, rental cars) that are not within DOT's jurisdiction.

ANA also raised concerns about Web pages subject to oversight by more than one carrier if disagreements arise among the carriers as to whether the pages adequately meet the standard. ANA also wanted to know about Web pages that are likely to be viewed in the process of booking a carrier's fares but that do not specifically mention the carrier – such as disclosures about service fees or refund fees imposed by the agent. Finally, they raised the possibility that DOJ may subsequently adopt a Web site accessibility standard that conflicts with the DOT standard, and asked whether carriers would be obligated to put agents at risk of DOJ sanctions by insisting that they follow the DOT standard. We respond to these concerns in the section DOT Decision below.

The American Society of Travel Agents (ASTA) and National Tour Association (NTA) concurred with the view that airlines should not be quasi-enforcers of ticket agent compliance with Web site accessibility requirements, stating that the carriers' role should only be to provide notice to agents of their Web site accessibility obligations (e.g., through the Airlines Reporting

Corporation). The Interactive Travel Services Association (ITSA) was the sole commenter representing ticket agents that supported a requirement for carriers to ensure agent Web site compliance as long as the sole determinant of compliance is the accessibility standard DOT mandates and not any additional requirements that individual airlines may wish to impose.

Echoing ANA's comments about the scope of agent Web sites, other industry commenters pointed out that ticket agent Web sites contain content and functionality that go well beyond the marketing of air transportation. They observed that compliance with the accessibility standard would necessarily entail changes to many Web pages unrelated to air transportation. USTOA in particular argued that few, if any, tour operator Web sites offer customers the opportunity to purchase air transportation as a stand-alone product, which typically is offered as an add-on to supplement a cruise or land tour. They argued that Web site changes to make pages on which air transportation is marketed accessible will necessarily involve changes to the site layout and architecture affecting non-air transportation related Web pages. USTOA believes that this situation amounts to de facto regulation of travel products and services outside the scope of the ACAA and the Department's jurisdiction. Other travel industry commenters noted that only a small portion of the content on agent Web sites is air transportation-related and asserted that unless agents undertake the expense of rendering all the public-facing content on their Web sites accessible, their Web sites as a whole will not be accessible to passengers with disabilities under the proposed requirements.

Commenters representing agents also pointed out that the cost of converting existing Web sites would be especially difficult for ticket agents that have minimal in-house resources providing Web site support. These commenters observed that many travel businesses would have no choice but to purge existing content and avoid adding any advanced features on their

Web sites rather than incur the high cost of ensuring that all their covered content is accessible. As an alternative, ASTA/NTA suggested that DOT consider requiring only new content on agent Web sites to be accessible, while permitting a safe harbor for existing content. They reasoned that even with a safe harbor provision, in most cases the continuous and rapid turnover of content would result in Web sites coming into compliance over a relatively short period of time.

For the most part, disability advocacy organizations indicated their overall concurrence with the Department's proposals and few commented directly on whether the Department should require carriers to ensure the accessibility of ticket agent Web sites or ensure the compliance of ticket agent Web sites directly. Disability advocacy organizations that did comment on the ticket agent proposal remarked that carriers should be held responsible for ensuring ticket agent Web site accessibility through their contracts with the agents. They again observed that Part 382 already requires carriers to have provisions in their agreements with contractors that perform services required by Part 382 on their behalf. See section 382.15(b). A few individual members of the public who did not identify as having disabilities, however, did not support a requirement to hold carriers responsible for ensuring the compliance of ticket agent Web sites.

In connection with ensuring the accessibility of ticket agent Web sites, industry commenters and some individual commenters also raised the concurrent Department of Justice (DOJ) rulemaking to revise its ADA title III regulations concerning Web site accessibility standards. These commenters stated that both Federal agencies must coordinate to ensure that the technical Web site accessibility criteria each will require are consistent. Some of these commenters urged the Department to postpone imposing a Web site accessibility standard with regard to ticket agents until the DOJ rulemaking is completed.

Finally, the Department received a number of comments on the proposed provisions for carriers to ensure that agents that are small businesses and whose Web sites are inaccessible provide Web-based discounts, services, and amenities to individuals who indicate that they cannot use the agents' Web sites and who purchase tickets using another method. ASTA specifically supported this proposal as a viable trade-off for small entities in lieu of Web site conformance, saying that such businesses expect to have personal interaction with consumers anyway, so any additional burden of providing these services offline should be manageable. Some disability advocacy organizations took exception to the Department excluding small ticket agents from the carriers' responsibility to ensure that agent Web sites comply with the WCAG 2.0 standard. In their view, a requirement for carriers to ensure that small agents offer Web-based discounts to passengers who self-identify as having a disability is not practical. They argued that customers will not necessarily know whether the agent is a small business and whether or not the agent's Web site should be accessible. They also objected to the notion that in order to access the same service as non-disabled people, they must self-identify as having a disability.

DOT Decision: The Department has considered the viewpoints for and against requiring accessibility of ticket agent Web sites and the question of whether or not carriers should be responsible to ensure that such Web sites are accessible. After looking at all the available information, we have decided against requiring carriers to ensure the accessibility of ticket agent Web sites. We considered limiting the agent Web sites for which carriers must ensure compliance to those agents whose annual revenues related to passenger service to, within and from the United States are \$100,000,000 or more. Limiting carriers' responsibility to ensure the accessibility of ticket agent Web sites to only the few largest agent Web sites would limit the

cost burden to carriers of monitoring agent Web site compliance with this requirement while increasing the range of accessible air travel Web sites available to consumers with disabilities who would benefit from the rule.

We decided against adopting this approach for two reasons. First, the Department of Justice (DOJ) has jurisdiction to regulate travel services as service establishments that are public accommodations under title III of the ADA, and DOJ expects to issue a proposal in early 2014 on accessibility of public Web sites under ADA title III. The Department of Justice proposal would address the scope of the obligation for public accommodations to provide access to their Web sites for persons with disabilities, as well as the technical standards necessary to comply with the ADA. Ticket agents, which are public accommodations under ADA title III, would be covered entities under DOJ's rulemaking. Although in our view DOT has the rulemaking authority to require ticket agents to directly comply with the same Web site accessibility standard as carriers, we acknowledge DOJ's concurrent authority to do the same and are persuaded that a single consistent standard that applies to ticket agents for Web site accessibility will eliminate uncertainty and confusion in converting their Web sites.

Secondly, we find the carriers' arguments persuasive that a requirement to ensure that their agents implement the Web site accessibility standards will be difficult for them to monitor and enforce. Furthermore, diverting technical resources away from the development and maintenance of their own primary Web sites in order to monitor ticket agent Web sites may detract from their efforts to identify and correct problems that may emerge after the WCAG 2.0, Level AA standard is implemented on their Web sites. For these reasons, we feel it will best serve the public interest not to require carriers to ensure that their ticket agents bring their Web sites into compliance with WCAG 2.0, Level AA at this time. In the same vein, the Department

has decided not to require carriers to monitor and refrain from using ticket agents who fail to provide, either over the telephone or at an agent's places of business, Web-based fares and amenities to individuals who cannot access an agent's Web site due to their disabilities. Instead, the Department has decided to amend its rule on unfair and deceptive practices of ticket agents<sup>30</sup> to require all ticket agents that are not considered small businesses under the Small Business Administration's (SBA) size standards<sup>31</sup> to disclose and offer Web-based discount fares to prospective passengers who contact them through other channels (e.g., by telephone or at an agent's place of business) and indicate that they are unable to use an agent's Web site due to a disability.

The Department has also decided not to include an additional requirement in the rule on unfair and deceptive practices to prohibit a ticket agent from charging a fee for reservations made over the phone or at the agent's place of business to individuals who cannot use the agent's Web site due to a disability. In our view, amending the unfair and deceptive practices rule to bar fees is unnecessary since existing law already prohibits charging a fee in such circumstances. Under the "reasonable modification" provision of DOJ's current title III ADA regulation, covered entities are required to make reasonable modifications to their policies, practices, and procedures when necessary to afford the same advantages to individuals with disabilities as are available to others, unless such modification would cause a fundamental alteration of the advantage offered.<sup>32</sup> Furthermore, ADA title III prohibits covered entities from imposing charges to cover the cost of such reasonable modifications, even when a charge would normally

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<sup>30</sup> 14 CFR 399.80.

<sup>31</sup> See 13 CFR 121.201.

<sup>32</sup> See 28 CFR 36.302(a).

be assessed to all customers for the same service.<sup>33</sup> DOJ's guidance concerning this provision explains that when a service normally provided at a fee to all customers is provided to an individual with a disability as a necessary measure to ensure compliance with the ADA, no fee may be imposed on the individual with a disability for that service.<sup>34</sup> The Department believes that these title III provisions sufficiently establish the obligation of ticket agents to modify their policies to refrain from charging a fee to individuals with a disability for Web fares requested over the telephone or in-person at the agents' places of business when those individuals indicate that they are unable to access the agent's Web sites due to their disabilities.

#### Implementation Approach and Schedule

The SNPRM: The Department proposed a three-phase implementation schedule for ensuring that the carriers' primary Web sites would be fully compliant by two years after the effective date of the rule. The first phase would apply only to new or completely redesigned primary Web sites that would be required to be accessible if placed online 180 days or later after the effective date. We explained that substantial technical changes such as those affecting a Web site's visual design or site architecture would constitute a "redesign." The second phase would require all pages associated with obtaining core air travel services and information related to these core services, either to be directly conformant on the carrier's primary Web site, or have accessible links from the primary Web site to corresponding conformant pages on a mobile Web site by one year after the effective date. The third phase would require all public-facing content on the carrier's primary Web site, including core air travel services and information previously

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<sup>33</sup> See 28 CFR 36.301(c) which prohibits a public accommodation from imposing a surcharge on a particular individual with a disability or any group of individuals with disabilities to cover the costs of measures, such as the provision of auxiliary aids, barrier removal, alternatives to barrier removal, and reasonable modifications in policies, practices, or procedures, that are required to provide that individual or group with the nondiscriminatory treatment required by the ADA or its implementing regulation.

<sup>34</sup> See 28 CFR part 36, App. B, p. 223 (September 15, 2010).

made accessible on a mobile Web site, to meet the accessibility standard by two years after the effective date. We also sought comment on alternative time frames and approaches for implementation of the WCAG 2.0 standard.

Comments: Most commenters, whether representing industry or the disability community, disagreed with the proposed implementation approach and time frame. Nearly all of the industry comments, for example, favored a flat two-year implementation deadline for all Web site changes, rather than the proposed phased approach. Most of the industry comments favoring a two-year deadline also supported applying the accessibility standard to only the portion of a carrier's primary or mobile Web site involved in providing core air travel services and information. Spirit Airlines offered another option, recommending that only core air travel service and information pages be compliant with WCAG 2.0 at Level A by two years after the effective date and with Level AA by five years after the effective date. Air New Zealand, which did not object to the proposed WCAG 2.0 Level AA standard or to the scope (all public-facing Web pages on the primary Web site) argued that more than two years would be needed to render all covered content compliant. The Interactive Travel Services Association (ITSA) opposed the phased implementation timeline and urged the Department to impose a single compliance deadline of at least 18 months after the effective date for all Web content. Not all commenters rejected a phased approach, however. The American Society of Travel Agents (ASTA) opposed a flat two-year compliance period, stating that the timeline should be variable, allowing more time to convert larger Web sites. ASTA also supported a requirement for priority to be given to bringing content most likely to be used by consumers with disabilities into compliance first.

Although many individual commenters who self-identified as having a disability supported the proposed time frame, disability advocacy organizations generally considered the

time frame too generous. In their view, the technology already exists to restructure a large Web site on an accelerated schedule. ACB and AFB found the staggered implementation time frame confusing and potentially subject to litigation. They recommended that all Web site pages be compliant by six months after the effective date, except for certain legacy pages and content that would pose an undue burden to convert. CCD and NCIL advocated that at least Web pages providing the core air transportation services be compliant within six months after the effective date.

ITI offered several comments on the proposed implementation approach. They observed that while the technical challenges of Web site conversion vary greatly among the carriers, it is safe to say that when accessibility is properly integrated into the development process, technical efficiencies can be expected over time. They also observed that while new pages generally can be made accessible more easily than existing content, both share common back end infrastructure that may need to be changed. These infrastructure changes may involve additional staff training and implementation time in order to enable accessibility on new pages. They advised the Department to allow adequate time to execute all the required changes.

DOT Decision: We have considered all these comments at length and have been persuaded that the three-phase implementation schedule proposed for carriers' Web sites to be fully compliant within two years should not be adopted. However, for reasons we discussed earlier, the Department is convinced that it should require all covered public-facing content on a carrier's primary Web site to be accessible. The Department believes that reduction of compliance costs can be achieved without compromising access to all the public-facing pages on an airline's Web site content for people with disabilities by providing additional time for carriers to make their Web sites accessible. The additional time before full compliance is required will

increase the extent to which accessibility can be built into newly launched or redesigned Web pages, forms, and applications, while minimizing the amount of retrofitting required. As such, we are requiring carriers that market air transportation to the general public in the United States and operate at least one aircraft with a seating capacity of more than 60 passengers to bring all Web pages associated with obtaining core air travel services and information (i.e., booking or changing a reservation (including all flight amenities), checking-in for a flight, accessing a personal travel itinerary, accessing the status of a flight, accessing a personal frequent flyer account, accessing flight schedules, and accessing carrier contact information) into compliance with the WCAG 2.0 standard at Level AA two years after the effective date of the rule. All remaining covered public-facing content on their Web sites must meet the WCAG 2.0 standard at Level AA three years after the effective date of the rule. We believe the extended deadline will lower the overall compliance costs for carriers by allowing more time to implement the changes during scheduled Web site maintenance and updates. A more detailed discussion of issues relating to the cost of implementation will be presented in the upcoming section on Costs and Benefits.

#### 5. Conforming Alternate Versions

The SNPRM: In the September 2011 SNPRM preamble, we discussed our concerns about some methods used to provide accessible Web content to individuals with disabilities. Specifically, we discussed the method of making the content of a primary Web site or Web page available in a text-only format at a separate location rather than making it directly conformant on the primary Web site. The Department had learned from a number of sources that such alternate sites are often not well maintained, frequently lack all the functionality available on the non-

conforming Web site/page, and have content that is not up-to-date.<sup>35</sup> These deficiencies are so prevalent that many accessibility experts flatly oppose alternate text-only sites as a general accessibility solution.<sup>36</sup> WCAG 2.0, however, permits a conforming alternate version of a Web page as a way for a non-conforming page to comply with the standard. The conforming alternate version must meet the WCAG 2.0 Level AA success criteria, be up-to-date with and contain the same information and functionality in the same language as the non-conforming page, and at least one of the following must be true: 1) the conforming version can be reached from the non-conforming page via an accessibility-supported mechanism, or 2) the non-conforming version can only be reached from the conforming version, or 3) the non-conforming version can only be reached from a conforming page that also provides a mechanism to reach the conforming version.<sup>37</sup> The conforming alternate version is intended to provide people with disabilities equivalent access to the same content and functionality as a directly accessible Web page. WCAG 2.0 implementation guidance, however, notes that providing a conforming alternate version of a Web page is a fallback option for WCAG conformance and that the preferred method is to make all Web page content directly accessible.<sup>38</sup> Although the Department proposed no requirement restricting the use of conforming alternate versions, we stated our intent that Web site content be directly accessible whenever possible. See 76 FR 59307, 59313 (September 26,

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<sup>35</sup> See Disabilities, Opportunities, Internetworking, and Technology, University of Washington. *Are text-only web pages an accessible alternative?* (January 23, 2013), <http://www.washington.edu/doi/CUDE/articles?1149> (last visited July 16, 2016). See also Accessibility Hawks, *Why Text Only Alternate Web Pages Are Not Ideal For Accessibility* (March 12, 2012), <http://accessibilityhawks.com/web-accessibility-articles/why-text-only-alternate-web-pages-are-not-ideal-for-accessibility.php> (last visited July 16, 2013). See also *Should Sites Be Accessible or Provide a Text-Only Alternative*, <http://www.evengrounds.com/articles/should-sites-be-accessible-or-provide-a-text-only-alternative> (last visited July 16, 2013).

<sup>36</sup> *Id.*

<sup>37</sup> See “Understanding Conformance” at <http://www.w3.org/TR/UNDERSTANDING-WCAG20/conformance.html#uc-conforming-alt-versions-head>, June 20, 2012.

<sup>38</sup> See *Id.*

2011). We sought comment on whether we should explicitly prohibit the use of conforming alternate versions except when necessary to provide the information, services, and benefits on a specific Web page or Web site as effectively to individuals with disabilities as to those without disabilities. We also asked under what circumstances it may be necessary to use a conforming alternate version to meet that objective.

Comments: In general, as discussed earlier, industry commenters favored the use of alternate Web site versions that did not conform to the WCAG 2.0 definition of “conforming alternate version.” Although some carriers did not oppose adopting the WCAG 2.0 Level AA success criteria, nearly all preferred having the option to apply any accepted accessibility standard only to primary Web site content involving core air travel services and information and to provide such content on a separate mobile or text-only Web site. We note that this proposed alternative would result in two parallel Web sites, each with its own development and maintenance costs. ITI commented that it should be up to the carrier to decide whether to build and maintain two Web sites (one that meets the WCAG 2.0 Level AA success criteria and one that does not) or a single compliant Web site. ITI observed that even though over time the cost of maintaining two Web sites would be greater than for a single compliant Web site, carriers should determine which approach would work best for them.

Disability community commenters rejected any option involving an alternative Web site largely because of their experience with such Web sites being poorly maintained and containing outdated content. Moreover, they viewed reliance on text-only alternatives for achieving accessibility as a “fundamental mistake.” They noted that arguments for text-only Web sites carry the implicit assumption that accessibility is intended to focus on users with visual disabilities. They emphasized the importance of considering the accessibility needs of all users,

including those with hearing, cognitive, and dexterity disabilities, who benefit from accessible content that contains images, color, time-based media, and JavaScript.

DOT Decision: The Department continues to believe that conforming alternate versions, as defined by WCAG 2.0, have a role, albeit a very limited one, in achieving Web site accessibility. The alternate version promoted by the carrier associations and some individual carriers (i.e., text-only Web site containing core air travel services and information only), however, would host on the alternate Web sites only selected portions of the information available on the carriers' primary Web sites. The Department believes that permitting the use of an alternate version of any Web page that does not conform to the elements of a "conforming alternate version" as defined by WCAG 2.0 is incompatible with the goal of equal access. As discussed earlier, in order for a non-conforming Web page to be included within the scope of conformance by using a conforming alternate Web page under this rule, the alternate page must meet the WCAG 2.0 Level AA success criteria, be as up-to-date and contain the same information and functionality in the same language as the non-conforming page, and at least one of the following must be true: 1) the conforming version can be reached from the non-conforming page via an accessibility-supported mechanism, or 2) the non-conforming version can only be reached from the conforming version, or 3) the non-conforming version can only be reached from a conforming page that also provides a mechanism to reach the conforming version. We note that the use of WCAG 2.0 conforming alternate versions, if unrestricted, is likely to perpetuate the problem of unequal access as carriers allot fewer resources than needed over time to properly maintain the secondary site. Given the incentives for carriers to focus on the development and maintenance of their primary Web site and the cost inefficiencies of maintaining two separate Web sites, the Department concurs with the WAI's view that the

preferred method of conformance in most circumstances is to make all content (e.g., each page) on the primary Web site directly accessible.

Moreover, limiting the use of conforming alternate versions aligns with the well-established principle of disability nondiscrimination law that separate or different aids, benefits, or services can only be provided to individuals with disabilities (or a class of such individuals) when necessary to provide aids, benefits, or services that are as effective as those provided to others. See, e.g., the ADA implementing regulation for title II at 28 CFR 35.130(b)(1)(iii) and (iv) and 35.130(b)(8)(d), and the ADA implementing regulation for title III at 28 CFR 36.202(b) and (c), and 36.203(a). Therefore, the Department has decided to permit the use of Level AA conforming alternate versions only when making a particular public-facing Web page compliant with all WCAG 2.0 Level AA success criteria would constitute an undue burden or fundamentally alter the content on that page. Since a fundamental principle underlying the WCAG success criteria is that they be reasonable to do all of the time, most of the more difficult success criteria have explicit exceptions built-in for situations where direct compliance is not reasonable. For example, Success Criterion 1.1.1 (Level A) provides that all non-text content that is presented to the user has a text alternative that serves the equivalent purpose and lists six exceptions/alternative means of compliance for situations in which presenting non-text content as a text alternative would not be technically feasible. These include non-text content that is 1) a control or accepts user input, 2) time-based media, 3) a test or exercise, 4) designed to create a specific sensory experience, 5) a Completely Automated Public Turing test to tell Computers and Humans Apart (CAPTCHA), or 6) a decoration, formatting, or invisible. Most of these exceptions permit the text alternative to at least provide descriptive identification of the non-text content. With such broad exceptions intended to address technically challenging situations

specifically built into the success criteria, an undue burden or fundamental alteration defense for using a conforming alternate version rather than rendering a Web page directly compliant with the Level AA success criteria will be a very high bar to meet.

If, despite the exceptions built into the WCAG 2.0 standard, a carrier believes an undue burden defense is justified with respect to a particular Web page, we would emphasize that the determination must be based on an individualized assessment of a number of factors showing that directly converting the Web page would cause significant difficulty or expense to the carrier. Those factors include: the size of the carrier's primary Web site; the type of change needed to bring the particular Web page into compliance; the cost of making the change as compared to the cost of bringing the Web site as a whole into compliance; the overall financial resources of the carrier; the number of carrier employees; the effect that making the change would have on the expenses and resources of the carrier; whether the carrier is part of a larger entity and its relationship to the larger entity; and the impact of making the change on the carrier's operation.

#### 6. Compliance Monitoring

The SNPRM: In the September 2011 SNPRM, the Department discussed several issues relating to ensuring and monitoring carriers' compliance with the WCAG 2.0 accessibility standard. We discussed, but did not propose to require, that carriers post WCAG 2.0 "conformance claims" on their Web sites. (A "conformance claim" is W3C's term of art for a statement by an entity giving a brief description of one Web page, a series of pages, or multiple related pages on its Web site for which the claim is made, the date of conformance, the WCAG guidelines and conformance level satisfied, and the Web content technologies relied upon.) See Web Content Accessibility Guidelines (WCAG) 2.0: W3C Recommendation 11 December 2008, available at <http://www.w3.org/TR/WCAG/#conformance-claims> (as of November 16, 2012).

Although concerned that conformance claims may be too resource intensive for complex and dynamic carrier Web sites, we nonetheless invited public comment on effective alternative means for readily identifying compliant Web pages during the Web site conversion period and for verifying overall Web site accessibility after the compliance deadline. We asked whether the Department should initiate random “spot” investigations of carrier and online ticket agency Web sites to monitor compliance after the rule becomes effective. We also asked whether there were any specific technical barriers to maintaining Web site accessibility after full Web site compliance is initially achieved.

Comments: The Department received a fairly wide range of comments addressing our inquiries on compliance monitoring. The NFB disagreed with the Department’s view that conformance claims may be too costly to be feasible, stating that conformance claims are the “cheapest and easiest method of identifying accessible Web pages for both the carrier and the user.” If the Department does not decide to adopt conformance claims, NFB suggested that in the alternative carriers provide: 1) a mechanism for users to request accessibility information that carriers must promptly disclose in an accessible format; 2) a “how to” tutorial on using the accessible Web site; or 3) customer service assistance specifically to address accessibility questions and needs. NFB considered these suggested alternatives less effective and less feasible than conformance claims. Some commenters suggested that the Department require carriers to adopt some form of self-monitoring such as a link to a customer survey prominently displayed on the Web site, a pop-up to ask users their opinion or permission to send them a survey regarding Web site accessibility, or a feedback mechanism on the Web site specifically for reporting accessibility problems. Other suggestions were that the Department itself randomly check carrier Web sites to ensure compliance or work collaboratively with academic institutions

to carry out random monitoring. Yet another suggestion was that the Department require carriers to establish disability teams to conduct an annual or biannual assessment of their Web sites for accessibility barriers and send a report to the Department.

The carrier associations suggested that the Department employ accessibility experts and use available online tools to determine if carriers' Web sites meet the accessibility standard. They also suggested that initial "spot" investigations be used to provide constructive feedback to carriers on Web site areas that appear not to meet the required standard. Regarding specific technical barriers, they noted that Java or Flash programs used to enhance the customer Web site experience are not easily made accessible and should be exempt from the standard or a text alternative version permitted.

DOT Decision: The Department considered the value of conformance claims as a means to readily identify compliant Web pages and Web sites and weighed the expense that meeting all the required elements of conformance claims is likely to incur. We also considered the fact that W3C itself does not require entities to post conformance claims. We have decided that other methods would allow the Department to monitor Web site compliance and provide feedback to carriers without imposing any additional cost burden on them. The Department encourages carriers to adopt one or more of the suggestions above for obtaining user feedback on the accessibility of their Web sites and urges them to use the feedback to continuously improve the accessibility of their Web sites. We especially recommend, but do not require, that carriers include a feedback form on their Web sites, perhaps located on a page that can be reached from a link on the Web pages associated with disability assistance services. At the same time, we do not consider self-monitoring alone adequate for ensuring compliance. The Department intends, therefore, to engage Web site accessibility experts after the date specified in this rule for Web

site compliance to check the compliance status of carrier Web sites so that we can notify carriers of non-compliant areas for corrective action. A carrier's failure to take corrective action within a designated time frame may result in the Department taking enforcement action.

#### 7. Online Disability Accommodation Request

The SNPRM: Following up on a similar inquiry we had made to the public in the 2004 Foreign Carrier NPRM, we asked in the September 2011 SNPRM whether the Department should require carriers and ticket agents to provide a mechanism for passengers to provide online notification of their requests for disability accommodation services (e.g., enplaning/deplaning assistance, deaf/hard of hearing communication assistance, escort to service animal relief area, etc.).

Comments: The comments the Department received on this question were starkly split. The disability advocacy community and some individual members of the public strongly favored adopting a requirement for carriers to allow passengers to submit a request online for a disability accommodation. Representatives from industry opposed any mandate for them to provide this service. Disability advocacy commenters observed that online service request notification would be advantageous for passengers with disabilities, who would have a written record of their requests and for carriers, who would have the request in writing in case there was a need for additional information. The Open Doors Organization (ODO) stated that "everyone in the industry," including travel agents, should be using special service requests uniformly. ODO observed that passengers with disabilities who book their tickets with online travel agents oftentimes must still call the carrier to set up the service request. ODO also pointed out that when the option is available to make a disability service request online when booking with an online travel agent, the service request often does not transfer to the carrier. The carrier

associations noted that several carriers already provide an online accommodation request function. They stated that carriers generally still prefer for passengers to speak with a customer service representative about their accommodation needs. The carrier associations believe that any requirement to provide an online service request function will serve to mislead passengers into believing that no other communication with the carrier about their accommodation needs is necessary, thus preventing carriers from getting all the information necessary to properly accommodate passengers.

DOT Decision: The Department believes that having online capability for requesting a disability accommodation has a number of potential benefits both to passengers with disabilities and to carriers. Aside from the advantage to a passenger of having an electronic record of providing notice to the carrier of a service request, an online service request will serve as a flag to the carrier of the passenger's accommodation needs. The Department is therefore requiring carriers to make an online service request form available for passengers with disabilities to request services including, but not limited to, wheelchair assistance, seating accommodation, escort assistance for a visually impaired passenger, and stowage of an assistive device. We also note the carrier associations' argument that simply making an online service request may not be sufficient to ensure the correct accommodation is provided. We agree with their assertion that additional information may be needed at times from the passenger. Therefore, carriers will be permitted to require that passengers with disabilities making an online service request provide information (e.g., telephone number, e-mail address) that the carrier can use to contact passengers about their accommodation needs. Carriers that market air transportation online will be required to provide the service request on their Web sites within two years after the effective date of this rule.

We view an online service request form as a useful tool to assist carriers in providing timely, appropriate assistance and reducing service failures that lead to complaints. Furthermore, aggregate data on online service requests would potentially be useful in helping carriers to understand the volume and types of service requests across time periods and routes.

### **Airport Kiosk Accessibility**

Automated airport kiosks are provided by airlines and airports to enable passengers to independently obtain flight-related services. The Department proposed provisions in the September 2011 SNPRM to require accessibility of automated airport kiosks affecting airlines under 14 CFR part 382 and U.S. airports with 10,000 or more enplanements per year under 49 CFR part 27 (Part 27). Part 27 is the regulation implementing section 504 of the Rehabilitation Act of 1973 as it applies to recipients of Federal financial assistance from the Department of Transportation. The proposed provisions of Part 382 would require carriers that own, lease, or control automated kiosks at U.S. airports with 10,000 or more annual enplanements to ensure that new kiosks ordered more than 60 days after the effective date of the rule meet the accessibility design specifications set forth in the proposal. We intended this provision to apply to kiosks for installation in new locations at the airport and as replacements for those taken out of service in the normal course of operations (e.g. end of life cycle, general equipment upgrade, and terminal renovation). The design specifications we proposed were based largely on Section 707 of the 2010 ADA Standards for Accessible Design. We also included selected specifications from the Access Board's section 508 standard for self-contained, closed products (36 CFR 1194.25). During the interim period from the effective date of the rule until all automated kiosks owned by a carrier are accessible, the Department proposed to require that each accessible kiosk be visually and tactilely identifiable to users as accessible (e.g., an international symbol of

accessibility affixed to the device) and be maintained in proper working condition. We specifically proposed not to require retrofitting of existing kiosks.

We intended the requirements proposed above also to apply to shared-use kiosks that are jointly owned by one or more carriers and the airport operator or a third-party vendor. Therefore, provisions to amend 49 CFR part 27 were proposed to apply nearly identical requirements to U.S. airports. We also proposed to require that carriers and airport operators enter into written, signed agreements allocating responsibility for ensuring that shared-use equipment meets the design specifications and other requirements by 60 days after the final rule's effective date. We included a provision proposing to make all parties jointly and severally responsible for the timely and complete implementation of the agreement provisions. Again, nearly identical requirements for entering a written agreement and making the parties jointly and severally liable for implementing the agreement were proposed for both Part 382 and Part 27.

In addition, we proposed to amend Part 382 to require each carrier to provide equivalent service upon request to any passenger with a disability who cannot readily use its automated airport kiosks. Such assistance might include assisting a passenger who is blind in using an inaccessible automated kiosk or assisting a passenger who has total loss of the use of his/her limbs in using an accessible automated kiosk. We proposed to require carriers to provide equivalent service upon request to passengers with a disability who cannot readily use their accessible automated kiosks, because even accessible automated kiosks cannot accommodate every type of disability.

Finally, we proposed the same effective date for all requirements applying to the carriers under 14 CFR part 382 and to the airport operators under 49 CFR part 27 to avoid any delays in implementing accessibility for shared-use automated kiosks.

## 1. Covered Equipment and Locations

### **Automated Airport Kiosk Definition and Applicability Based on Function/Location**

The SNPRM: The ownership of automated kiosks varies from airport to airport. In some airports, automated kiosks are airline proprietary equipment (i.e., owned, leased, or controlled by each individual airline). In other airports, kiosk ownership is shared jointly by the airport operator and airlines serving the airport and are often referred to as common use self-service (CUSS) machines. In the September 2011 SNPRM, the Department proposed to define an airline-owned automated airport kiosk covered by this rule as “a self-service transaction machine that a carrier owns, leases, or controls and makes available at a U.S. airport to enable customers to independently obtain flight-related services.” For CUSS machines, we proposed the term “shared-use automated airport kiosk” defined as “a self-service transaction machine provided by an airport, a carrier, or an independent service provider with which any carrier having a compliant data set can collaborate to enable its customers to independently access the flight-related services it offers.” We proposed to apply the accessibility design specifications to all proprietary and shared-use automated kiosks that provide flight-related services (including, but not limited to, ticket purchase, rebooking cancelled flights, seat selection, and obtaining boarding passes or bag tags) to customers at U.S. airports with 10,000 or more enplanements per year. We asked in the preamble whether we had adequately described automated airport kiosks in the rule text.

Comments: In their joint request of October 7, 2011, to clarify the scope of the proposed requirement, A4A, IATA, the Air Carrier Association of America, and RAA asked the Department whether automated ticket scanners for rebooking flights during irregular operations were included in the definition of automated kiosks we intended to cover in the rulemaking.

After our clarification notice of November 21, 2011, addressing ticket scanners, ITI sought further clarification of how accessibility requirements apply to kiosks based on their functionality and location at the airport (e.g., check-in or baggage tagging kiosks located near the ticket counter, boarding or rebooking kiosks near the gate areas). The Trace Center commented that check-in and other kiosks at airports such as ticket scanners for rebooking, self-tagging baggage kiosks, etc. should all be covered. They emphasized that no exceptions should be made for particular types of airport kiosks, but if needed due to technology shortcomings, should only apply to a particular kiosk functions, not to an entire kiosk or category of kiosks. The Trace Center also suggested that any exceptions based on function should be reviewed every five years in light of advances in technology.

DOT Decision: In our notice of November 21, 2011, the Department clarified our position that a kiosk that allows passengers to rebook their flights independently provides a flight-related service and therefore is within the intended scope of the proposed rule. Although following the notice we received additional comments suggesting that certain types of automated airport kiosks be excluded from coverage based on function or location at the airport, the Department finds no reasonable basis for such exclusions. Despite the trend toward fewer consumers using an airport kiosk than a home computer or Smartphone to check in and download their boarding passes, we expect airlines to continue expanding the menu of new flight-related services available on kiosks at various locations throughout the airport (e.g., rebooking, ticketing, and flight information). It continues to be the Department's intention that all flight-related services offered to passengers through airport kiosks in any location at the airport be accessible to passengers with disabilities. Therefore, the accessibility requirements will apply to all new automated airport kiosks and shared-use automated airport kiosks installed

more than three years after the effective date of this rule until at least 25 percent of automated kiosks in each location at the airport are accessible. By “location at the airport” we mean every place at a U.S. airport where there is a cluster of kiosks or a stand-alone kiosk (e.g., in a location where five kiosks are situated in close proximity to one another, such as near a ticket counter, at least two of those kiosks must be accessible; in all locations where a single kiosk is provided which is not in close proximity to another kiosk, the single kiosk must be accessible). When the kiosks provided in a location at the airport perform more than one function (e.g., print boarding passes/bag tags, accept payment for flight amenities such as seating upgrades/meals/ WiFi access, rebook tickets, etc.), the accessible kiosks must also provide all the same functions as the inaccessible kiosks. (See section below on Implementation Approach and Schedule.)

#### **Kiosk at Non-Airport Locations**

The SNPRM: Although we proposed to apply the accessibility standard only to automated airport kiosks, we noted in the preamble that airlines may also own, lease, or control kiosks that provide flight-related services in non-airport venues (e.g., hotel lobbies) covered by ADA title III rules. We asked for public comment on whether kiosks that carriers provide in non-airport venues should also be covered by this rulemaking.

Comments: Six disability advocacy organizations (ACB, AFB, NFB, NCIL, PVA, and BBI) strongly urged the Department to apply the accessibility requirements to kiosks in non-airport locations. PVA argued that airlines should be required to ensure that kiosks providing flight-related services are accessible wherever they are located. ACB, AFB, NFB, NCIL and BBI all noted that both DOT and DOJ potentially have jurisdiction over kiosks in non-airport locations. ACB and AFB acknowledged that there may be differences between the DOT and DOJ requirements for kiosk accessibility given that DOJ is currently working on a rulemaking to

apply accessibility standards to kiosks other than ATMs and fare machines provided by entities covered under ADA title III. NFB, NCIL and BBI all supported DOT's initiative to cover non-airport kiosks under the ACAA but expressed concern that the ACAA regulations not impede or interfere with rights and remedies available under the ADA or other laws. The ACAA, for example, lacks a private right of action like that provided by the ADA against entities that violate the law. NFB, ACB, and AFB specifically urged the Department to cover non-airport kiosks in the final rule and to state in the preamble that ADA provisions prevail when there is an overlap with the ACAA provisions. Among individual commenters, there was a mix of responses for and against applying the accessibility standard in DOT's final rule to airline kiosks in non-airport venues. Individual members of the public who did not identify themselves as having a disability tended to oppose applying the standard to kiosks located outside airports due to concerns about possible conflicts between the applicable DOT and DOJ standards.

On the industry side, only the carrier associations commented, stating that they were opposed to applying the DOT standard to airline kiosks located in places of public accommodation where ADA title III already applies.

DOT Decision: Although a case can be made to support covering airline-owned kiosks located in non-airport venues under the ACAA regulations, the Department believes there are compelling reasons for not doing so at this time. A primary goal of this ACAA rulemaking is to apply an accessibility standard to new automated airport kiosks installed after a certain date. To achieve this, airlines must work with the airports and their own technical teams, as well as with the hardware designers and software developers of their suppliers, to design, develop, test, and install accessible kiosks at airports with 10,000 or more annual enplanements where they own, lease, or control kiosks. Each carrier may have several different kiosk suppliers with whom they

must work, depending on the airports they serve. We believe requiring airlines to meet the accessibility standard for kiosks located in non-airport venues would add significantly to their compliance burden and divert resources needed to meet their primary goal of compliance at U.S. airports. In our view, airline compliance with respect to airport kiosks is a technically complex and resource intensive undertaking that must take priority over making kiosks located in other places accessible. Within the next few years, kiosks in non-airport locations will be subject to DOJ's accessibility design standard under its revised ADA title II and III regulations. This means that at most there will be a lag of a few years from the time airline kiosks at airport locations and those at non-airport locations are required to be accessible. We believe this time lag is an acceptable trade off to support proper implementation of the fundamental goal of airport kiosk accessibility.

#### **Allocation of Responsibilities for Shared-Use Kiosks**

The SNPRM: The Department proposed that carriers and airports be required to enter into written, signed agreements concerning shared-use kiosks that they jointly own, lease, or control. The purpose of the agreements is to allocate responsibilities among the parties for ensuring that new shared-use kiosks ordered after the effective date meet the design specifications, are identified as accessible, and are maintained in working condition. We asked a number of questions about the allocation of responsibilities and cost-sharing between airport operators and airlines for the procurement, operation, and maintenance of shared-use kiosks. We asked about potential difficulties carriers and airport operators would have in meeting the written agreement requirement or in implementing the agreements. We also asked whether there were any shared-use kiosk ownership arrangements involving airlines only or between airlines and outside vendors that would require additional time to implement.

Comments: The Department received very few comments directly responsive to the questions we asked about allocation of responsibilities and costs between carriers and airport operators on shared-used automated kiosks. Regarding the proposed written agreements, the carrier associations asserted that it would take 24 months to enter into them, presumably due to the time necessary to revise the IATA kiosk standards. Denver International Airport did not comment specifically on the deadline for compliance with the agreement provision. San Francisco International Airport indicated that six months would be needed to comply with the agreement provision. They also objected to the provision holding airports and carriers jointly and severally responsible for compliance with the accessibility standard for new kiosk orders and other provisions applicable to shared-use automated kiosks. Their concern was that airlines and airports have separate responsibilities for ensuring that shared-use kiosks are accessible and would have no control over the other party meeting its responsibilities under the agreement. They argued that airports should not be held responsible for airlines failing to do their part as provided in the joint agreement. In their view, the provision for both parties to be jointly and severally liable is not practical and they asked the Department to delete it.

DOT Decision: The Department has considered the merits of the arguments against the proposed provision to hold carriers and airport operators jointly and severally liable for compliance of shared-use kiosks with the accessibility requirements. We continue to believe, however, that joint accountability is essential to ensuring that shared-use kiosks comply with the design specifications set forth in the final rule. Moreover, there is precedent for holding carriers and airport operators jointly and severally liable under Part 382 (see 14 CFR 382.99(f)) and under Part 27 (see 49 CFR 27.72(c)(2) and (d)(2)) for the provision and maintenance of lifts and accessibility equipment for boarding and deplaning at airports. Therefore, we have retained in

the final rule provisions stating that carriers and airports are jointly and severally liable for ensuring that shared-use automated airport kiosks are compliant with the requirements, including the maintenance provisions. We have accepted, however, the recommendation to drop the requirement for a written, signed agreement. Both parties nevertheless will be responsible for jointly planning and coordinating to ensure that shared-use kiosks are accessible and will be held jointly and severally liable if compliance is not achieved. We believe the liability provision will be an incentive for airports and airlines to work together to carry out requirements that cannot be successfully implemented without their mutual cooperation.

## 2. Accessibility Technical Standard

The SNPRM: The Department proposed and sought public comment on design specifications based on section 707 of the ADA and ABA Accessibility Guidelines (now codified in the Department of Justice's 2010 ADA Standards)<sup>39</sup> that apply to automated teller machines (ATM) and fare machines and on selected specifications from the section 508 standard for self-contained closed products (see 36 CFR 1194.25). Below we have summarized the questions we posed along with the responses we received.

Comments: The consensus among most commenters was that the Department's proposed design specifications adequately covered all the functions automated airport kiosks presently offer, as well as some functions that may be added in the future. The Trace Center, however, urged the Department to look beyond the 2010 ADA Standards for Accessible Design and provisions of the section 508 regulation dating from 1998 as the basis for the design

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<sup>39</sup> See 28 CFR 35.104 (defining the "2010 Standards" for title II as the requirements set forth in appendices B and D to 36 CFR part 1191 and the requirements contained in § 35.151); *see also* 28 CFR 36.104 (defining the "2010 Standards" for title III as the requirements set forth in appendices B and D to 36 CFR part 1191 and the requirements contained in subpart D of 28 CFR part 36). Appendices B and D to 36 CFR part 1191 contain the Access Board's 2004 ADA Accessibility Guidelines (2004 ADAAG), consolidating both the ADA Accessibility Guidelines and Architectural Barriers Accessibility Act Guidelines (*see*, 69 FR 44084 (July 23, 2004)).

specifications. Many of their comments for additions and revised wording were based on the Access Board's advance notices of proposed rulemaking for the Section 508 update<sup>40</sup> and on success criteria from WCAG 2.0.<sup>41</sup> Two individual commenters suggested that the Department consider incorporating parts of the U.S. Election Assistance Commission's Voluntary Voting System Guidelines (VVSG).<sup>42</sup>

DOT Decision: In collaboration with the Access Board and the Department of Justice, the Department reviewed and considered the VVSG guidelines and certain WCAG 2.0 success criteria in developing the proposed standard. We also considered each of the specific suggestions for modifying our proposed design specifications offered by the commenters and have adopted a number of them after weighing the cost and benefit as well as the present need based on functions automated airport kiosks currently perform.

In deciding whether or not to accept a suggested change, we also considered the fact that the Access Board is now engaged in rulemakings to revise the guidelines and standards on which our proposed kiosk standard is based and is expected to issue updated guidelines within the next few years. We did not accept some recommended changes for functions typically not performed by airport kiosks or that the Access Board is studying for possible inclusion in their revised standard (e.g., control of animation and seizure flash threshold for visual outputs).

Regarding the flight-related services automated airport kiosks currently make available, the Department believes that the standard we are now adopting is entirely adequate to ensure independent access and use by the vast majority of individuals with disabilities. The standard

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<sup>40</sup> See <http://www.accessboard.gov/sec508/refresh/draft-rule2010.htm> (preamble at 75 FR 13457, 13468 (March 22, 2010)) and <http://www.access-board.gov/sec508/refresh/draft-rule.htm> (preamble at 76 FR 76640, 76646 (December 8, 2011)).

<sup>41</sup> See <http://www.w3.org/TR/WCAG20/>.

<sup>42</sup> See Voluntary Voting System Guidelines, [http://www.eac.gov/testing\\_and\\_certification/voluntary\\_voting\\_system\\_guidelines.aspx](http://www.eac.gov/testing_and_certification/voluntary_voting_system_guidelines.aspx).

will apply to new kiosks installed three years or more after the effective date and will not apply to any kiosks installed prior to that date. We will continue to monitor automated airport kiosks and the accessibility of any new functions not currently available as the technology of self-service transaction machines evolves. We will also review the new guidelines and standards issued by the Access Board and the Department of Justice to determine whether improvements to the section 707 and section 508 specifications warrant further change to the DOT airport kiosk standard in the future. Insofar as the Department modifies its standard in the future to address new developments in kiosk technology, the revised standard will apply to new or replacement kiosk orders only and will not apply retroactively to any equipment that complies with this standard.

### ***Operable Parts***

The Department sought comment on certain characteristics of operable parts, including the following:

Identification – The Department proposed to require that the operable parts on new automated airport kiosks be tactilely discernible by users to avoid unintentional activation and requested comment regarding the cost of meeting the requirement.

Timing – We proposed that when a timed response is required, the user be alerted by sound or touch to indicate that more time is needed. We also wanted to know whether timeouts present barriers to using automated airport kiosks as well as the costs and potential difficulties associated with meeting the requirement.

Status Indicators – We asked whether locking or toggle controls should be discernible visually as well as by touch or sound.

Comments: The Trace Center offered a number of comments for substantially reorganizing and expanding the scope of this section so that the provisions apply to the overall operation of the kiosk rather than to its operable parts alone. They also suggested incorporating the provisions of section 309 of the 2010 ADA standards word for word rather than by reference, as well as new requirements to allow at least one mode of operation that is usable without body contact, without speech, or without gestures. Regarding the timing provision, they requested that a visual alert be added and that the time limit be extendable at least ten times. In addition, they proposed to include a new “key repeat” provision, modify the color provision to further accommodate individuals with color blindness, and expand the scope of the operable parts provisions to include the provision of touch screen controls as well as tactilely discernible controls. The carrier associations suggested that making operable parts tactilely discernible and integrating a user prompt for timeouts would require substantial time to design and test and thus would require a compliance date of 36 months after the rule’s effective date. ITI indicated that timeouts, whether in voice or visual mode, are a standard feature of applications today. They also stated that there should be no requirement for the status of locking or toggle controls to be discernible visually, or by sound or touch. In their view, such a requirement would be unnecessary since most host system applications are not case sensitive or middle layer applications convert and send inputs to the host in the appropriate format.

DOT Decision: The Department has accepted the suggestion to add a visual alert requirement to the timing provision and a requirement for visually discernible status indicators on all locking or toggle controls or keys. We have included as examples of toggle controls the Caps Lock and Num Lock keys. In light of current automated airport kiosk functions and operation, the Department has decided that the provisions of the operable parts section as we

proposed them are adequate without further change. After the Access Board finalizes its rulemakings revising the section 508 rules and the ADA and ABA Accessibility Guidelines to address kiosks other than ATMs and fare machines, the Department will consider whether further changes addressing the issues raised by the Trace Center should be incorporated in the operable parts provisions for future orders.

### ***Privacy***

The Department proposed that automated airport kiosks must provide the same degree of privacy to all individuals for inputs and outputs.

Comments: The Trace Center suggested that we add an advisory to provide users of speech output the option to blank the screen for enhanced privacy. They explained that the screen should not blank automatically when the speech output mode is activated since many users may want to use both speech and visual interfaces simultaneously. NFB suggested that the screen blank out automatically upon activation of speech output.

DOT Decision: The Department has modified the proposal in line with the Trace Center suggestion to require that when an option is provided to blank the screen in the speech output mode, the screen must blank when activated by the user, not automatically.

### ***Outputs***

The Department sought comment on certain characteristics of outputs, including the following:

Speech Output – The Department proposed to require that speech output be delivered through an industry-standard connector or a handset and asked whether delivering speech output through either of these means should be required. We wanted to know whether it would be sufficient to require volume control for the automated airport kiosk’s speaker only without

requiring any other mode of voice output and about any privacy concerns with a speaker-only arrangement. We also asked about the costs associated with providing a handset or industry standard connector and about the costs/benefits of requiring a speaker only, without a handset or headset output capability. We inquired about wireless technology to allow people with disabilities to use their own Bluetooth enabled devices in lieu of requiring the kiosk itself to have a handset or headset connector, and if so, whether it should be required.

Volume Control – We asked whether the dB amplification gain specified for speakers was sufficient and about the need for volume control capability for outputs going to headphones or other assistive hearing devices.

Tickets and Boarding Passes – Regarding transactional outputs (e.g., receipts, tickets), we proposed to require that the speech output must include all information necessary to complete or verify the transaction. We listed certain types of information accompanying transactions that must be provided in audible format, as well as certain supplemental information that need not be, and whether any other information should be required to be audible.

Comments:

Speech Output – In descending order of preference, commenters supported supplying standard headset connectors, handsets, or speakers as the method for delivering speech output. In response to our question whether requiring volume control for the automated airport kiosk's speaker alone without requiring any other mode of voice output, ITI stated that it would not recommend working with a speaker-only solution. They observed that along with privacy concerns, the ambient noise levels in airports would present difficulties. The Trace Center, ITI, and a number of individual commenters supported a private listening option and recommended that a standard connector be provided for greater privacy during transactions and to allow

individuals with hearing impairments the use of assistive listening technologies (e.g., audio loops). The carrier associations said all three methods should be allowed, in addition to any other equivalent alternative a carrier or vendor identifies. The Trace Center commented that handsets should be in addition to, not instead of, a headphone connector and should be hearing aid compatible if included. Regarding the cost of providing headset connectors and handsets, ITI said the costs will depend on whether volume control can be implemented via software or hardware, whether a physical volume control is required, and whether volume will need to be at distinct levels or at a continuous level. Carrier associations cited various reasons for believing that there would be high costs associated with providing either handsets or headset connectors, (e.g., need to keep a large supply of handsets on hand for sanitary reasons or to provide handsets for passengers who forgot their own).

Regarding wireless technologies for receiving speech outputs, the Trace Center supported the wireless concept as an alternative output method, but noted that a Bluetooth device must be “paired” with the kiosk to ensure user privacy, a process that is too complicated for many users and usually requires sight. ITI observed that Bluetooth technology is not widely used in public spaces and that it would not advocate a requirement for the use of Bluetooth at airport kiosks.

Regarding speech outputs associated with characters such as personal identification numbers, both the Trace Center and NFB suggested that rather than providing a beep tone, which typically indicates an input error, it would be better to provide the masking characters as speech (e.g., read the word “asterisk” when the character “\*” is displayed onscreen).

Volume Control – In response to our question about the adequacy of the proposed dB amplification levels, the Trace Center indicated that the specified volumes for external speakers

was sufficient and noted that absolute volume for headphones cannot be specified due to differences in headphone equipment.

Receipts, Tickets, and Boarding Passes – The Trace Center advocated for requiring speech output upon request for certain types of legally binding supplemental information (e.g., contracts of carriage, applicable fare rules) accompanying a transaction, unless the information was available to the user in an accessible format at an earlier time (e.g., when the ticket was purchased online).

Other Suggested Changes – The Trace Center also proposed changes to require automatic cutoff of an external speaker when a plug is inserted into the headset connector. There were two new requirements proposed by the Trace Center related to outputs: one dealing with control over animation (i.e., a mode of operation to pause, stop, or hide moving, blinking, or scrolling if information starts automatically, lasts for more than five seconds, and is presented in parallel with other content) and one to prohibit lights and displays from flashing more than three times in any one second period, unless the flashing does not violate the general flash or red flash thresholds. The latter proposed requirement is derived from a WCAG 2.0 success criterion on seizure flash thresholds.<sup>43</sup>

DOT Decision:

Speech Output – The Department concurs that a headset jack potentially offers more flexibility to users in accessing a kiosk, as well as greater privacy. At the same time, the volume control requirements for both private listening and external speaker will allow adequate access to speech outputs without limiting the design options and cost flexibility. Therefore, this rule allows carriers to choose whether their accessible automated kiosks will deliver speech outputs via a

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<sup>43</sup> For further explanation of general flash and red flash thresholds, see <http://www.w3.org/TR/UNDERSTANDING-WCAG20/seizure-does-not-violate.html>.

headset jack, a handset, or a speaker. We have also decided not to add a provision to require Bluetooth technology at this time due to security concerns regarding its use in public spaces and usability issues associated with pairing Bluetooth devices with airport kiosks.

Regarding the speech output for masking characters, the Department is requiring that the masking characters be spoken (“\*” spoken as “asterisk”) rather than presented as beep tones or speech representing the concealed information.

Receipts, Tickets, and Boarding Passes – The Department has not accepted the suggestion to require that legally binding information be provided in audio format upon request because in our view the cost outweighs the benefit. We do not believe the burden to carriers of providing complex and lengthy documentation in speech format at an automated kiosk would be balanced by a corresponding benefit to people with disabilities, particularly when the information is supplemental (not essential to the transaction itself) and can be obtained by requesting it from an agent at the airport or online.

Other Suggested Changes – The Department has not accepted the suggested provision to require automatic cut-off of the external speaker when a headset is plugged into the connector. It is our understanding that this automatic cut-off is already a standard feature of devices equipped with connectors. While we believe that equipping handsets with magnetic coupling to hearing aids may be desirable, the volume control requirements for both handsets and headset connector will still provide access and allow greater design flexibility. Regarding the recommended provisions for animation control and seizure flash thresholds, we believe they have merit but are premature at this time. These provisions are appropriate and necessary for video clips and other animated material that typically are not available on today’s automated airport kiosks.

Therefore, the Department has decided that it will reconsider the need for such provisions, if airport kiosk functionality evolves to include animated content in the future.

### ***Inputs***

The Department sought public comment on whether there was a need to revise the proposed requirement for tactilely discernible input controls to allow for accessible touch screen technology such as that used by Apple's iPhone and Google's Android products. We asked how familiar the community of individuals with visual impairments is with accessible touch screen technology. We also asked about alphabetic and numeric keypad arrangements and whether the specified function keys and identification symbols were sufficient for the types of operations typically performed on airport kiosks functions.

### **Comments:**

Tactilely Discernible Input Controls – The carrier associations and ITI support allowing either tactilely discernible controls or accessible touch screen navigation as methods of input. The Trace Center believes that both methods should be allowed, but that if gestures on a surface or in three-dimensional space are allowed there also must be some other method involving tactilely locatable controls. The Trace Center observed that gestures can work well for people who are technically savvy but are not easy to use for many people with disabilities – especially those with manual dexterity disabilities.

Keypad Controls – The Trace Center made a number of suggestions to improve tactile controls, the layout of alpha and numeric keys on key pads (use of QWERTY arrangement), and the use of tactile symbols for distinguishing function keys on non-ATM style keypads. They also suggested adding a provision to specify the arrangement of a virtual onscreen keyboard alphabetically in one mode to facilitate navigation using arrow keys and voice output. ITI

pointed out that airport kiosks are not usually equipped with keypads and the new standard should not assume their presence on an accessible kiosk. They further indicated that keypad arrangements, whether onscreen or external, should not be specified due to text-to-speech software that reads out each screen element.

DOT Decision: The Department has accepted the Trace Center’s suggestion to modify the provision on tactile controls to state that “at least one input control that is *tactilely discernible without activation* shall be provided for each function. We also accepted their suggestions to require that alphabetic keys on a keypad to be arranged in a QWERTY keyboard layout with the “F” and “J” keys tactilely distinct from the other keys, as well as an option for numeric keys to be arranged in a row above the alphabetic keys on a QWERTY keyboard. We did not add any new provisions for enhancing the onscreen navigation of virtual keyboards for those with visual impairments but will consider doing so in the future if virtual keyboards are integrated into automated airport kiosks and there is a need to address their usability by people with disabilities.

### ***Display Screens***

The Department did not ask specific questions but received a few comments about the proposed specifications for display screens.

Comments: The Trace Center suggested that we change the requirement for display screens such that they must not only be visible, but also readable, from a point located 40 inches (1015 mm) above the center of the clear floor space in front of the automated kiosk. Several commenters requested that the language concerning the required contrast of characters with their background on visual displays be changed from “either light characters on a dark background or dark characters on a light background” to “with a minimum luminosity-contrast-ratio of 3:1.”

Trace Center requested that we require a higher contrast ratio of 4.5:1 for characters that are less than 14-point.

DOT Decision: We have accepted the suggestion to require display screen characters and background to have a minimum luminosity-contrast-ratio of 3:1. This ratio is consistent with that specified in the WCAG 2.0 Success Criteria 1.4.3 on minimum contrast. Combined with the requirement for characters on the display screen to be in sans serif font and at least 3/16 inch (4.8 mm) high (based on the uppercase letter “I”), the 3:1 contrast ratio will satisfy the success criterion at Level AA. (For further clarification of this requirement see the WCAG 2.0 definitions for “contrast ratio” and “relative luminance” found at:

<http://www.w3.org/TR/WCAG20/#contrast-ratiodef> and  
<http://www.w3.org/TR/WCAG20/#relativeluminancedef>.)

Regarding display screen visibility, we have not accepted the suggestion to require display screens to be *readable* from a point located 40 inches above the center of the clear floor space in front of the kiosk. The proposed requirement that the display screen be *visible* from a point located 40 inches above the center of the clear floor space essentially means that the display screen must not be obscured from view at that height. A requirement that the display screen be readable from that height would not be practicable since “readability” is a function of many factors, including screen characteristics (e.g., font size), ambient conditions (e.g., lighting), and each potential reader’s visual acuity when viewing the screen at a given distance from the eye.

### ***Biometrics***

In the SNPRM, we included a provision stating that biometrics may be used as the only means for user identification or control where at least two options using different biological

characteristics are provided. We requested comment on this provision as well as the costs associated with implementing it.

Comments: ITI opposed any requirement for more than one biometric option, saying the cost of more than one biometric device per kiosk would be prohibitive. They recommended an alternative identification method be used such as a personal identification number (PIN) for those who cannot use the biometric option provided.

DOT Decision: The final provision does not require that more than one biometric identification option be used unless the only method of identification the kiosk provides is biometric. The kiosk provider may also use a non-biometric alternative such as a PIN in lieu of a second biometric identifier using a different biological characteristic. Our proposed provision provided alternatives that are accessible for virtually all individuals with a disability without imposing unreasonable cost on kiosk providers; therefore, we are finalizing the proposed requirement.

#### ***Other Comments on the Technical Standard***

Several disability organizations' comments urged the Department to require carriers and airports to consult with individuals with disabilities on the design and usability of their kiosks that meet the technical standard. Although the standard we are adopting consists of well-established and tested design specifications, the Department nonetheless encourages carriers and airports to consult with disability advocacy organizations on the usability of their accessible kiosk during the test phase and to consider adopting any feasible suggestions for improving its usability and accessibility.

### 3. Implementation Schedule and Alternatives

#### **Compliance Dates for New Kiosk Orders and Airline/Airport Agreements**

The SNPRM: The Department proposed to require carriers that own, lease, or control automated airport kiosks or jointly own, lease, or control shared-use automated kiosks with an airport operator at U.S. airports with 10,000 or more annual enplanements to ensure that new kiosks ordered more than 60 days after the effective date of the rule meet the proposed accessibility standard. We proposed to require the same of operators of U.S. airports having 10,000 or more annual enplanements that jointly own, lease, or control shared-use automated kiosks with airlines. The Department asked whether setting the effective date to begin ordering accessible kiosks starting 60 days after the effective date of the rule was too long or too short and what would be a reasonable amount of implementation time for the ordering provision. Important to our decision about the compliance time frame is the ability of the manufacturing sector to meet the demand for accessible automated airport kiosks. Consequently, we asked a number of questions about the capabilities of airport kiosk manufacturers to market accessible models in time to meet the proposed time frame. We asked about the number of large and small manufacturers that currently make automated airport kiosks and whether any currently market accessible models. Assuming that some lead-time would be needed to develop and start manufacturing an accessible model that meets the required standard, we asked whether carriers could meet the 60-day ordering deadline, and if not, how much time would be needed to have a product ready to market. We also asked about the competitive impact of the ordering deadline on small manufacturers given the resources of larger manufacturers to meet demand more quickly.

We explicitly proposed not to require retrofitting kiosks. For both carriers and airports that jointly own, lease, or control shared-use automated kiosks, we proposed to require that they enter into written, signed agreements allocating their respective responsibilities for ensuring

compliance with the kiosk accessibility requirements. We asked whether carriers and airport operators should have more than 60 days after the effective date of the rule to enter into agreements with airport operators concerning compliance with the kiosk accessibility requirements, and if so, what would be a reasonable amount of time.

Comments: The carrier associations recommended a delay of up to 36 months after the rule's effective date to implement the ordering provision for new accessible kiosks. The carrier associations that commented jointly estimated it would take as long as one year for manufacturers to develop compliant prototype kiosks, an additional four to six months to procure the kiosk hardware, up to one year for carriers to develop compliant software applications, and six months to install and test the software. Individual carriers recommended lesser delays of one to two years for implementing the ordering provision. The American Aviation Institute (AAI) recommended at least two years from the rule's effective date to begin implementing the ordering provision.

In addition to a longer delay in the effective date of the ordering provision, most industry commenters recommended that only a percentage of new kiosks ordered be required to comply with the accessibility standard. The IATA Common Use Working Group stated that the majority of shared-use airport kiosks follow the international IATA (RP1706c) and ATA (30.100) Common Use Self-Service (CUSS) Standards. They suggested that at least one year would be needed to modify and test the standards for new accessible hardware, updated platform software, and new software interfaces required to support airline software applications. Development of airline application software and pilot testing with integration software could require up to another year. ITI recommended a delay of 18 – 36 months from the rule's effective date, which from their perspective would allow a reasonable amount of time for product development and

manufacturing. They emphasized the importance of adequate time to design, engineer, and test the accessibility features to ensure they function effectively, noting that once product development is completed, inventory and delivery should take 90 – 120 days. ITI also cautioned that certification, field trials, and controlled pilots could extend the timeline further, if issues arise with third parties that are out of the kiosk manufacturer's control. They did not support recommendations that the Department require only a portion of new kiosks ordered to be accessible.

Disability community commenters called for reducing the delay after the rule's effective date for the new order requirement. United Spinal and CCD both recommended 30 days after the rule's effective date; BBI recommended no delay in the effective date of new order provision and that it coincide with the rule's effective date. The Trace Center, recognizing that a longer lead time would likely be needed, suggested that the Department finalize the technical standard and provide it to interested parties while the final rule is still under review by the Office of Management and Budget (OMB). In effect, the Trace Center recommended that the Department give vendors and other organizations advance notice of the technical standard before the final rule is published so that they could develop and test an accessible kiosk prototype before the actual effective date of the rule. They further recommended that the final rule require that accessible kiosks begin to be installed in airports shortly after the final rule is published. As for airports, Denver International Airport concurred with the Department's proposed effective date of 60 days for new kiosk orders while San Francisco International Airport suggested extending the compliance date to six months after the rule's effective date to allow enough time to complete the airport/airline agreements for shared-use automated kiosks and prepare the technical specifications.

We received very few public comments addressing our questions about the capabilities of the manufacturing sector, none of which came from manufacturers of airport kiosks. However, our contractor preparing the regulatory evaluation contacted a number of manufacturers who confirmed in part what the industry commenters had told us about the longer lead-time required to develop and produce compliant hardware and software applications. They explained that airlines with proprietary kiosks and the in-house capability to program their own software applications would need less time to comply than airlines that contract out software development. Manufacturers that produce shared-use kiosks confirmed the complex development scenario described by the carrier associations, including an initial phase to revise and test the international technical standard that applies to such kiosks. They confirmed that for shared-use kiosks, airports typically procure the hardware and platform software while the airlines must each develop and certify their own compliant software application, which then must be integrated and tested on the hardware – steps that could extend the compliance time frame. The manufacturers also corroborated ITI’s observations that requiring only a portion of new kiosks to be accessible would not substantially reduce the development costs for accessible kiosks.

DOT Decision: The Department has weighed all the available information and is persuaded that a compliance deadline of 60 days from the effective date of the final rule for new kiosk orders is not feasible. Under this rule, airlines and airports have 36 months after the rule’s effective date to begin installing accessible kiosks at U.S. airports. There are no automated airport kiosks presently on the market that meet entire set of the accessibility requirements mandated by this rule, and discussions with kiosk manufacturers confirm airline assertions that it could take a substantial amount of time to have kiosks with fully compliant hardware and

platform software developed, tested, and ready to market for sale. Research conducted by our contractor indicates that the amount of lead time required to develop and produce compliant hardware and software applications will vary significantly depending on whether the kiosks are proprietary or shared-use and whether their capabilities for software application development are in-house or contracted. Airlines with proprietary kiosks and immediate access to applications programming capabilities may be able to develop and deploy compliant kiosks within 18 to 24 months. For carriers that use shared-use kiosks, however, it may take more than two years for accessible kiosks to be ready for installation.

The IATA Common Use Working Group indicated that it would take up to one year to revise the applicable standards for shared use airport kiosks, with additional time needed to develop and test the kiosk hardware and software components for shared-use automated kiosks. ITI and several other sources have indicated that the current marketplace for developers of shared-use kiosk software is limited to a few firms. This suggests that carriers and airports could also face delays in securing the requisite technical resources. In addition, software applications for shared-use kiosks must be certified, which the IATA Working Group indicates can add another 3 months to the time required to prepare the product for deployment. Apart from the above technical considerations, a compliance time frame of less than three years could also result in above-market pricing, since fewer vendors will be able to develop and test compliant kiosks in less time.

The Trace Center's recommendation that the Department "finalize[], publish[] and provide[] to all interested parties [the accessibility standard] in advance while the provisions make their way through the Office of Management and Budget ..." might accelerate the availability of accessible kiosks, but would not be consistent with the requirements of Executive

Order 12866 and the Administrative Procedure Act. Executive Order 12866 requires Federal agencies to submit the final rule of any significant agency rulemaking to OMB prior to its publication in the Federal Register, unless OMB waives its review.<sup>44</sup> It also prohibits agencies from otherwise issuing to the public any regulatory action subject to OMB review prior to OMB completing or waiving its review.<sup>45</sup> The Administrative Procedure Act specifically provides that individuals “may not in any manner be required to resort to, or be adversely affected by, a matter required to be published in the Federal Register and not so published.”<sup>46</sup> This means the Department can neither finalize the accessibility standard prior to OMB’s completion of its review nor compel carriers or airports to begin implementing the standard prior to publication of the final rule in the Federal Register.

In light of these factors, the Department has decided to extend the compliance time frame for installing new kiosks at U.S. airports to three years after the rule’s effective date. Meeting this deadline will require some concurrent effort in the development of compliant hardware and software applications. Carriers and airports will need to be active participants in the IATA standards development and approval process to finalize a standard within a time frame that supports the development, prototyping, and marketing of accessible kiosks and software applications by the compliance deadline. At the same time, the three-year lead time before the provision on new kiosk installations becomes effective will give manufacturers and programmers not presently engaged in developing accessible kiosks enough time to gear up to participate in the market. We believe this broadening of the supplier base can be expected to mitigate the incremental costs of acquiring and installing accessible kiosks. Based on the input our

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<sup>44</sup> See Exec. Order 12,866, 58 FR 51735, 51741 (October 4, 1993).

<sup>45</sup> See Exec. Order 12,866, 58 FR No. 140 51735, 51743 (October 4, 1993).

<sup>46</sup> See 5 U.S.C. 552(a)(1).

contractors received from manufacturers, shortening the compliance deadline may limit the number of firms that would develop and market compliant hardware and software applications. In addition, due to the amount of technical coordination between airlines and airports necessary to develop accessible shared-use kiosks and their reliance on third-party contractors to develop and test compliant platform and application software, many airports and carriers would not be able to meet a shorter compliance deadline. Ultimately, the Department believes that passengers with disabilities will benefit significantly from providing kiosk manufacturers and application developers with a longer period to develop, prototype, test, and deploy kiosks that effectively meet the required accessibility standard.

### **Implementation Alternatives**

The SNPRM: The Department proposed that all new kiosks ordered after the order deadline must be accessible. We asked for comment on whether a phasing in period over 10 years, gradually increasing the percentage of automated airport kiosk orders required to be accessible, would meaningfully reduce the cost of implementing the accessibility standard. We also asked whether we should require less than 100 percent of new airport kiosks to be accessible, and if so, what percentage of accessible kiosks we should require in each location at the airport. We noted that if only a percentage of kiosks were required to be accessible, the wait time for passengers who need an accessible automated kiosk could be significantly longer than for non-disabled passengers unless they were given some kind of priority access to those machines. We observed that any mandate for priority access to accessible kiosks could also carry the potential of stigmatizing and segregating those passengers.

Comments: ITI commented that from a development and manufacturing perspective, the timelines and resources needed to develop and incorporate “new accessibility solutions will be

the same, regardless of whether all, or a percentage of, kiosks are required to comply with the new rules.” They added that from their perspective there also would be no meaningful cost reduction from a gradual phasing in of accessible kiosks. The carrier associations nonetheless opposed a requirement for all airport kiosks to be accessible, arguing that this approach is inconsistent with other Part 382 requirements (e.g., movable armrests are only required on fifty percent of aircraft aisle seats, one accessible lavatory on a twin aisle aircraft) and costly. They urged the Department to consider two compliance alternatives, each having a compliance date of 36 months after the effective date of the final rule: (1) require ten percent of future kiosks ordered to include accessible features or, in the alternative, (2) require one accessible kiosk per passenger check in area at an airport. From their point of view, a reduced number of accessible kiosks will have no significant impact on passenger wait times since passengers with a disability who self-identify would be given priority to use an accessible kiosk, reducing their wait to the time it would take for someone already using the accessible kiosk to finish their transaction. In the event more than one passenger needs to use the accessible kiosk at the same time, agents will be available to assist. The carrier associations believe this approach will provide accessible kiosks to those who need and will use them, while better balancing the costs with the benefits. Air New Zealand made a similar argument, suggesting that requiring only 25 percent of airport kiosks to be accessible, in combination with priority access for passengers with disabilities, will provide passengers with disabilities the independent access they want and limit the additional financial burden to carriers. Spirit Airlines proposed that the Department require only 50 percent of new kiosks ordered to be accessible, until a total of 25 percent of airport kiosks are accessible. The San Francisco International Airport, on the other hand, took the position that the Department should require 100 percent of kiosks to be accessible by a date to be determined after taking

manufacturing capabilities and other factors into consideration. They saw this approach as the best way to avoid potential problems for airports having to maintain both accessible and inaccessible kiosk models.

DOT Decision: We are requiring that all new kiosks installed at U.S. airports three years or more after the effective date of the rule be accessible until at least 25 percent of kiosks in each location at the airport are accessible. We agree with the comments of Air New Zealand that having 25 percent of airport kiosks accessible (as opposed to more than 25 percent), in combination with priority access for passengers with disabilities to those kiosks, will enable passengers with disabilities to independently use airport kiosks and limit the additional costs to carriers and airports associated with acquiring and installing accessible kiosks. Nonetheless, the Department intends to monitor implementation of this rule to determine whether delay in obtaining access to an accessible kiosk is a significant problem for passengers with disabilities, despite the priority access provision, especially during peak demand times. If so, we may issue further regulations to address the matter. Of course, airlines and airports may always choose to make more than 25 percent of airport kiosks accessible. As noted by San Francisco International Airport, one advantage of making 100 percent of airport kiosks accessible is avoidance of the potential costs associated with maintaining and supporting both accessible and inaccessible kiosk models.

As we stated earlier, the requirement for at least 25 percent of accessible automated airport kiosks at each location in U.S. airports with 10,000 or more enplanements means that at least 25 percent of kiosks provided in each cluster of kiosks and all stand-alone kiosks at the airport must be accessible. For example, in a location where five kiosks are situated in close proximity to one another, such as near a ticket counter, at least two of those kiosks must be

accessible; in locations where a single kiosk is provided which is not in close proximity to another kiosk, the single kiosk must be accessible. In addition, when the kiosks provided in a location at the airport perform more than one function (e.g., print boarding passes/bag tags, accept payment for flight amenities such as seating upgrades/meals/WiFi access, rebook tickets, etc.), the accessible kiosks must provide all the same functions as the inaccessible kiosks in that location. These days many kiosks provide a broad range of functionality beyond simple check-in. Kiosks that perform different functions are considered to be of different types. Accessible automated airport kiosks must provide all the functions provided to customers at that location at all times. For example, it is unacceptable for the accessible automated airport kiosks at a particular location to only enable passengers to check-in and print out boarding passes while the inaccessible automated airport kiosks at that location also enable passengers to select or change seating, upgrade class of travel, change to an earlier or later flight, generate baggage tags and purchase inflight Wi-Fi sessions or other ancillary services. Whatever functions are available on inaccessible automated airport kiosks must also be available to customers using accessible airport kiosks at the same location. As noted above, the 25 percent requirement also applies to each location at the airport where kiosks are installed. It is not sufficient for a carrier or an airport to merely comply with the percentage for the airport as a whole, or even for a given terminal building if there are kiosks in more than one location in the terminal.

Based on data from commenters who estimated airport kiosk life spans, we estimate that the typical kiosk life span is no more than five to seven years. We believe it is reasonable to conclude that well before the end of the 10-year period after the effective date of this rule virtually all airport kiosks will have reached the end of their life span. As such, a total of at least 25 percent of airport kiosks in each location at a U.S. airport should have been replaced with an

accessible kiosk by then. To ensure this outcome, we have added requirements that both carriers and airport operators must ensure that at least 25 percent of automated kiosk provided in each location at the airport must be accessible by ten years after the effective date of the rule.

Accessible kiosks provided in each location at the airport must provide all the same functions as the inaccessible kiosks in that location.

### **Retrofitting Kiosks**

The SNPRM: In proposing to require that only new kiosks ordered after a certain date be accessible, we had also considered proposing to require carriers to either retrofit or replace a certain percentage or number of airport kiosks (e.g., retrofit 25 percent of existing kiosks or replace at least one kiosk) in each location at the airport by a certain date. We ultimately decided against proposing either option, as the available information suggests that these approaches would significantly increase the cost to carriers. Nonetheless, we also had concerns that the transition time for an accessible kiosk to become available at each location in an airport could be more than a decade. The best life cycle estimates for airport kiosks available to us when the September 2011 SNPRM was published ranged from seven to ten years. We therefore asked for comment on the accuracy of our life cycle estimate and whether the Department should require carriers to retrofit or replace a certain portion of their kiosks to meet the accessibility standards until all automated airport kiosks are accessible.

Comments: Most disability advocacy organizations, individual commenters who self-identified as having a disability, and some commenters from the general public supported an interim requirement to retrofit some percentage of existing kiosks to accelerate the availability of accessible kiosks at all locations in an airport. The Trace Center, NFB, and BBI supported a phased retrofit schedule such that 25 percent of all deployed kiosks must be accessible by 1 year,

50 percent by 3 years, 75 percent by 5 years, and 100 percent by 7 years after the effective date. NCIL advocated a more accelerated approach for retrofitting that would have 100 percent of deployed kiosks accessible by five years after the effective date. PVA urged the Department to require that any existing kiosk that is altered (voluntarily modified or refurbished, including any software modification or upgrade) must be retrofitted to meet the accessibility standard. The Trace Center conceded that retrofitting “can be significantly more expensive than deploying new accessible kiosks” due to loss of the lower cost production environment and economies of scale, as well as the additional costs of taking kiosks out of service and the actual cost to modify the kiosk. They acknowledged that even activating dormant accessibility features (e.g., headset connector) can be a significant undertaking that would take some lead-time to complete.

The San Francisco International Airport also recommended retrofitting some existing kiosks as a reasonable alternative to requiring only that new kiosks ordered after the effective date be accessible. They reasoned that if only new kiosks must meet the accessibility requirements, it would create an adverse incentive for airlines to maintain older kiosks beyond their useful life and delay full accessibility for many years. They thought it likely that the airport industry would be ready to support immediate retrofits.

Carriers and the carrier associations opposed any kind of retrofitting. They added that many kiosk models could not be retrofitted because they are near the end of their life cycle and are no longer supported by the manufacturer. The IATA CUSS working group estimated incremental costs of at least \$3,000 per kiosk to retrofit to the DOT standard. ITI said that the costs of retrofitting an existing kiosk would be difficult to quantify—particularly older kiosks with operating systems that are not compatible with text-to-speech technology and may not support software needed for speech output. They noted that in addition to hardware costs, there would

also be software certification costs. Several manufacturer representatives echoed these concerns, indicating that there are significant technical feasibility issues associated with retrofitting.

DOT Decision: The Department acknowledges that a requirement to retrofit some percentage of kiosks to meet the accessibility standard would accelerate the near-term availability of accessible machines at airports. While more rapid near-term availability of accessible machines is an important objective, retrofitting is clearly an expensive, and in some cases, technically infeasible means to accomplish it. A shortened compliance timeline also runs the risk of insufficient testing to ensure the successful integration and error-free operation of all the hardware and software components of accessible kiosks. In lieu of requiring retrofitting of existing kiosks, carriers and airports will be required to ensure that at least 25 percent of automated kiosks in each location at an airport are accessible and that accessible kiosks provided in each location at the airport provide all the same functions as the inaccessible kiosks at that location by ten years after the rule's effective date. As mentioned earlier, with data from carriers and industry experts confirming that the typical kiosk life cycle is between five and seven years, we anticipate that 25 percent of kiosks in all locations at an airport will have been replaced with accessible models well before this ten-year deadline. Compliant kiosks will begin to be installed in locations at airports no later than 3 years after the effective date of this rule.

#### 4. Identification and Maintenance

The SNPRM: The Department proposed to require carriers and airports to ensure that each accessible automated kiosk they own, lease, or control in a location at an airport is visually and tactilely identifiable as such to users (e.g., an international symbol of accessibility affixed to the front of the device) and is maintained in proper working condition, until all automated kiosks

in a location at the airport are accessible. We proposed to apply these requirements to airlines under Part 382 and to airports under Part 27.

Comments: The Department received a very small number of comments on these provisions. Two disability organizations supported the requirement for affixing an international accessibility symbol. Some commenters who did not identify as having disabilities noted that a requirement to affix a symbol or a sign indicating that a particular kiosk is accessible may be helpful to some individuals with disabilities, such as those with mobility or cognitive impairments. As a practical matter, these same commenters noted that for users with visual impairments, receiving guidance from airline personnel to an accessible kiosk made more sense than affixing an accessibility symbol they cannot see and which they could not touch until physically in front of the machine. Despite such observations, there were no comments opposing these specific provisions.

DOT Decision: The Department views the need for accessible automated kiosks to be identifiable and maintained in working condition to be of great importance particularly since this rule does not require 100 percent of kiosks to be accessible. Passengers with disabilities will experience a greater impact than other passengers when accessible kiosk equipment is out of order since only a portion of them will be required to be accessible. In assessing carrier/airport responsibility for accessible kiosks that are down for repair periodically during their service life, the Department will examine several factors on a case-by-case basis, including whether maintenance schedules are in place and followed for all kiosks owned by the carrier/airport and whether the maintenance schedules and policies followed for both accessible and inaccessible kiosks are similar. Also, kiosk locations at the airport will have a mix of accessible and inaccessible machines so there is value in requiring that accessible kiosk models carry the

international accessibility symbol to allow passengers with a variety of disabilities maximum independence in locating and using an accessible kiosk. This requirement will help ensure that adequate resources are allocated to maintaining accessible kiosks, particularly during the first few years when there are fewer accessible models at an airport, for parts and technical training that may otherwise be given low priority. Since we received no comments opposing the provisions as proposed and for the other reasons mentioned above, the Department is retaining these provisions in the final rule.

#### 5. Other Issues – Federal Preemption

The SNPRM: In the preamble of the September 2011 SNPRM, we stated that States are already preempted from regulating in the area of disability civil rights in air transportation under the Airline Deregulation Act, 49 U.S.C. 41713 and the ACAA, 49 U.S.C. 41705.

Comments: In their comments on this rulemaking, NFB and NCIL both urged the Department to rectify what they viewed as erroneous holdings in two recent court cases alleging that inaccessible airline kiosks and Web sites constitute disability discrimination under State law.<sup>47</sup> In both cases, the court granted the defendant airlines' motions to dismiss, concluding that Plaintiffs' State-based claims alleging disability discrimination in air transportation were preempted by the ACAA and the Airline Deregulation Act.<sup>48</sup> Specifically NFB and NCIL asked the Department to use agency discretion to grant passengers with disabilities, who are protected against disability discrimination under the ACAA regulations, additional protection under other laws, such as the State laws at issue in the litigation, by including a saving clause in Part 382.<sup>49</sup>

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<sup>47</sup> See *Nat'l Fed'n of the Blind v. United Airlines, Inc.*, No. C 10-04816, p. 3 WHA, 2011 WL 1544524 (N.D. Cal. April 25, 2011) and *Foley et al v. JetBlue Airways Corp.*, No. C 10-3882, p. 3 (N.D. Cal. August 3, 2011).

<sup>48</sup> See *Id.*

<sup>49</sup> NFB and NCIL recommended identical language for this provision: "Nothing in these regulations shall be construed to invalidate or limit the remedies, rights, and procedures of any federal law or law of any state or political

As background, we note that in the case filed by NFB in the United States District Court for the Northern District of California, the Department of Justice filed a *Statement of Interest By the United States* reflecting the views of the Department of Transportation in support of United's motion to dismiss. The statement made three central arguments supporting Federal preemption of NFB's state claims: 1) airline kiosks constitute a service that falls within the preemption provision of the Airline Deregulation Act; 2) the ACAA rules apply pervasively not only to disability discrimination in aviation generally, but also to the accessibility of airline kiosks specifically; and 3) applying a State remedy to NFB's discrimination claims would have the broad effect of undermining the purpose behind the ACAA regulations. The court agreed with the views of the United States, finding that NFB's claims were preempted under both the Airline Deregulation Act and the ACAA.<sup>50</sup>

JetBlue's dismissal motion subsequently adopted the preemption arguments made in the *Statement of Interest By the United States* submitted in the United case, asserting that these views represented the agency judgment of the Department of Transportation.<sup>51</sup> The court did not agree with JetBlue's argument that Web sites and kiosks are "services" affecting economic deregulation or competition intended to fall within the scope of the Airline Deregulation Act and found that the plaintiffs' State law claims were not preempted by the Act. The court agreed, however, with JetBlue's arguments that DOT's ACAA regulations occupy the field of disability non-discrimination in aviation and preempt State law. Citing provisions in DOT's 2008 final ACAA rule requiring airlines to provide interim accommodations and its intent stated in the

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subdivision of any state or jurisdiction that provides greater or equal protection for the rights of individuals with disabilities than are afforded by these regulations."

<sup>50</sup> *Nat'l Fed'n of the Blind v. United Airlines, Inc.*, No. C 10-04816, p. 2-3 WHA, 2011 WL 1544524 (N.D. Cal. April 25, 2011).

<sup>51</sup> *Thomas Foley et al. v. JetBlue Airways Corp.*, No. C 10-3882, p. 4 (N.D. Cal. August 3, 2011).

rule's preamble for further rulemaking on inaccessible kiosks and Web sites, the court held that the ACAA regulations specifically preempt the field of airline kiosk and Web site accessibility "so as to justify the inference that Congress intended to exclude state law discrimination claims relating to these amenities."<sup>52</sup>

The Plaintiffs in both cases appealed the decisions to the Court of Appeals for the Ninth Circuit. In the NFB case, the United States filed an *amicus curiae* brief and reiterated its arguments that NFB's claims were both field and conflict preempted by the ACAA and expressly preempted by the Airline Deregulation Act.<sup>53</sup> The case was argued on November 8, 2012. However, the Court vacated submission of the case and will delay its decision pending a decision by the Supreme Court in *Northwest, Inc. et al. v. Ginsberg*, 695 F.3d 873 (9th Cir. 2012), *cert. granted*, -- S. Ct. --, 2013 WL 2149802 (May 20, 2013)(No. 12-462).<sup>54</sup> The parties in the JetBlue case filed an unopposed motion to stay proceedings pending the court's decision in the NFB case, and the Court granted that motion on September 22, 2011.<sup>55</sup>

Notwithstanding the United States' position and the district courts' holdings of Federal field preemption under the ACAA in both cases, in its comments on this rulemaking, NCIL pointed to statements in the Congressional record that the ACAA was enacted to ensure that airlines eliminate all discriminatory restrictions on air travel by persons with disabilities not related to safety.<sup>56</sup> They asserted that these statements concerning the ACAA are evidence that

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<sup>52</sup> *Id.* at 18-20.

<sup>53</sup> Brief for the United States as *Amicus Curiae* Supporting Affirmance of the District Court's Judgment, *Nat'l Fed'n of the Blind v. United Airlines, Inc.*, No. 11-16240 (9th Cir. Oct. 18, 2011).

<sup>54</sup> Order, *Nat'l Fed'n of the Blind v. United Airlines*, No. 11-16240 (9th Cir. May 22, 2013).

<sup>55</sup> Order, *Foley, et al., v. JetBlue Airways Corp.* No. 11-17128 (9th Cir. Sept. 22, 2011).

<sup>56</sup> See 132 Cong. Rec. S11, 784-08 (daily ed. Aug. 15, 1986) (statement of Sen. Dole). See also S. Rep. No. 99-400, at 2, 4 (1986), reprinted in 1986 U.S.C.C.A.N. 2328, 2329, 2331; 132 Cong. Rec. S11784-08 (daily ed. Aug. 15,

“...a saving[s] clause permitting the operation of more protective state laws [was] squarely contemplated by Congress and should be preserved with a saving[s] clause.”

DOT Decision: The Department fully concurs with NCIL and NFB that the ACAA was enacted to eliminate discriminatory restrictions by airlines on air transportation for people with disabilities. We continue to strongly disagree, however, with the notions that Congress intended State and local disability non-discrimination laws applied to aviation to be exempt from preemption under the Airline Deregulation Act or to operate concurrently with the ACAA. As we outlined in the Statement of Interest discussed above, the Department believes that the concurrent operation of State and local laws would undermine certain central goals of both the ACAA and the Airline Deregulation Act.

We believe that the detrimental impacts resulting from the concurrent operation of State/local disability non-discrimination laws on passengers with disabilities and on air transportation overall are serious and foreseeable. The saving clause advocated by NCIL and NFB would subject airlines to non-discrimination requirements in scores of State and local jurisdictions. Aside from the burden of complying with a patchwork of State and local disability regulations on airline economic activity and competition, passengers with disabilities would again be subject to inconsistency and uncertainty regarding the accommodations they can expect in air travel. Congress intended that the ACAA regulations apply accessibility requirements and compliance deadlines to covered airlines uniformly. The goal was to ensure that passengers with disabilities would consistently receive the same accommodations wherever their air transportation is subject to U.S. law. This outcome has largely come about today due to airlines throughout the U.S. market being freed to focus their resources on meeting a single regulatory

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1986); 132 Cong. Rec. H7057-01 (daily ed. Sept. 17, 1986) (statement of Rep. Sundquist); S. Rep. No. 99-400, at 2 (1986), reprinted in 1986 U.S.C.C.A.N. 2328, 2329-30.

and enforcement scheme for ensuring accessibility. Carriers have not had to scatter their resources training employees to meet varying regulatory requirements for each State in which the carrier operates. It is our view that Congress sought to avoid these foreseeable adverse effects and intended the ACAA regulation to occupy the legal field in this area in order to maximize accessibility across the entire air transportation market to which the ACAA applies. Therefore, we believe the public interest will be best served by not adding a saving provision to Part 382.

### **Regulatory Analysis and Notices**

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

This action has been determined to be significant under Executive Order 12866 and the Department of Transportation's Regulatory Policies and Procedures. It has been reviewed by the Office of Management and Budget in accordance with Executive Order 12866 (Regulatory Planning and Review) and Executive Order 13563 (Improving Regulation and Regulatory Review) and is consistent with the requirements in both orders. Executive Order 13563 directs agencies to propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs, tailor the regulation to impose the least burden on society consistent with obtaining the regulatory objectives, and in choosing among alternative regulatory approaches, select those approaches that maximize net benefits. Executive Order 13563 recognizes that some benefits and costs are difficult to quantify and provides that, where appropriate and permitted by law, agencies may consider and discuss qualitatively values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts. This rule promotes

such values by requiring the removal of barriers to equal access to air transportation information and services for passengers with disabilities.

In the Department's view, the non-quantifiable benefits of kiosk accessibility, which the tables below do not reflect, are wholly consistent with the ACAA's mandate to eliminate discrimination against individuals with disabilities in air transportation. They include the increased ability of individuals with disabilities to independently access and use with equal convenience and privacy, and without stigmatization, the same air transportation information and services available to individuals without disabilities. Specific non-quantifiable benefits associated with the kiosk accessibility requirements also include an enhanced sense of inclusion for travelers with vision or mobility disabilities, as well as a decrease in the stigma of special treatment at the ticket counter and in their overall waiting time to check-in. Having a choice of check-in options (e.g., either the automated kiosk or the check-in counter), depending on their anticipated transaction time or personal preference also has value to many travelers with disabilities, even if its monetary value cannot be quantified. The availability of accessible kiosks will also reduce waiting times at ticket counters for travelers without disabilities who are required to or choose to use the airline ticket counters for ticket purchase or check-in and free customer service agents from routine check-in and seat assignments tasks to focus on individual ticketing and baggage issues. Travelers with and without disabilities will also benefit from the design features of accessible kiosks (e.g., travelers who have difficulty reading English may benefit from having the ability to hear the kiosk instructions). We note that some of the non-quantifiable costs include the sunk costs of inaccessible kiosk models currently under development and occasional increases in kiosk waiting times that may result for other travelers initially as new users become familiar with kiosk features and applications.

Regarding the Web site accessibility requirements, we anticipate both non-quantifiable and intrinsically qualitative benefits. Web sites that meet the WCAG 2.0 Level AA standards will have a cleaner layout and less content per page, resulting in improved accessibility not only for people with severe vision impairments, but also for those with less severe disabilities such as low vision, developmental delays, or epilepsy. Web site accessibility will also remove a barrier to travel for independent people with severe vision impairments, making it more likely they will travel and increasing the number of trips they purchase. For carriers, we expect the process of making their Web sites accessible (e.g., developing a detailed Web site inventory) to result in an improved ability to identify and clean up existing errors and performance issues (e.g., broken links and circular references).

There are also potentially important categories of costs associated with the Web site accessibility requirements that are intrinsically qualitative or for which monetary values cannot be estimated from the available data. Bringing an entire air travel Web site into compliance with WCAG 2.0 Level AA, for example, may reduce options for innovation and creative presentation of Web content. Carriers will also need to allocate programming resources for creating and updating Web pages to ensure regulatory compliance that could be used to otherwise improve or increase functionality on their primary Web sites. Also unknown are the costs the Department will have to incur to enforce these rules by acquiring and maintaining the ability to monitor covered air travel Web sites, conduct periodic testing and verification, and work with carriers to understand and remedy identified Web site noncompliance.

The Department believes that the qualitative and non-quantifiable benefits of the Web site and kiosk accessibility requirements nonetheless justify the costs and make the rule cost beneficial, even without the economic benefits displayed in the tables below. The non-

quantifiable benefits to individuals with disabilities, in particular, are integral to achieving full inclusion and access to the entire spectrum of air transportation services, which is the overarching goal of the ACAA.

The final Regulatory Evaluation established that the monetized benefits of the final rule exceed its monetized costs by \$13.5 million using a 3-percent discount rate. The benefits and costs were estimated for the 10-year period beginning two years after the effective date (which was assumed to be January 1, 2014) for the Web site accessibility requirements and three years after the effective date for kiosk accessibility requirements. The upfront compliance costs incurred for Web sites in 2014 and 2015 and for kiosks in 2015 and 2016 were rolled forward and included in the 10-year analysis period results cited in the final regulatory evaluation. The expected present value of monetized benefits from the final rule over a 10 year period using a 7-percent discount rate is estimated at \$110.7million, and the expected present value of monetized costs to comply with the final rule over a 10-year period using a 7-percent discount rate is estimated at \$114.7 million. The present value of monetized net benefits over a 10 year period at a 7-percent discount rate is -\$4.0 million. The table below, taken from the final Regulatory Evaluation, summarizes the monetized costs and benefits of the rule.

**Present Value of Net Benefits for Rule Requirement (millions)**

<b>Monetized Benefits and Costs</b>	<b>Discounting Period/Rate</b>	<b>Web Sites</b>	<b>Kiosks</b>	<b>Present value (millions)</b>
<b>Monetized Benefits</b>	<b>10 Years, 7% discounting</b>	<b>\$75.9</b>	<b>\$34.8</b>	<b>\$110.7</b>
	<b>10 Years, 3% discounting</b>	<b>\$90.3</b>	<b>\$42.0</b>	<b>\$132.3</b>
<b>Monetized Costs</b>	<b>10 Years, 7% discounting</b>	<b>\$79.8</b>	<b>\$34.9</b>	<b>\$114.7</b>
	<b>10 Years, 3% discounting</b>	<b>\$82.5</b>	<b>\$36.1</b>	<b>\$118.6</b>
<b>Monetized Net Benefits</b>	<b>10 Years, 7% discounting</b>	<b>(\$3.9)</b>	<b>(\$0.1)</b>	<b>(\$4.0)</b>
	<b>10 Years, 3% discounting</b>	<b>\$7.8</b>	<b>\$5.9</b>	<b>\$13.7</b>

\*Present value in 2016 for Web site requirements and 2017 for kiosk requirements.

B. 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) has substantial direct effects 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; or (2) imposes substantial direct compliance costs on State and local governments. With regard to preemption, this final rule preempts State law in the area of disability civil rights in air transportation. However, State regulation in this area is already expressly preempted by the Airline Deregulation Act, which prohibits States from enacting or enforcing a law “related to

a price, route, or service of an air carrier.”<sup>57</sup> Furthermore, the ACAA occupies the field in the area of nondiscrimination in air travel on the basis of disability. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

C. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”). Because this final rule 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 13175 do not apply.

D. 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. We note that while the Regulatory Flexibility Act does not apply to foreign entities, we have examined the effects of this rule not only on U.S. airports and air carriers that are small entities under applicable regulatory provisions, but on small foreign carriers as well. The Web site accessibility requirements do not impact small U.S. and foreign carriers. Only carriers that operate at least one aircraft having a seating capacity of more than 60 passengers are required to make their Web sites accessible to passengers with disabilities and ensure that they provide Web-based discounts and waive any telephone or walk-in reservation fees for individuals unable to use their Web site due to a disability.

This final rule also requires small U.S. and foreign carriers that own, lease, or operate proprietary or shared-use automated kiosks at U.S. airports with 10,000 or more annual

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<sup>57</sup> 49 U.S.C. 41713(b)(1).

enplanements to install accessible models at each U.S. airport kiosk location starting three years after the rule's effective date until at least 25 percent of automated kiosks provided at each location are accessible and provide all the same functions as the inaccessible kiosks at each location. The same requirement applies to operators of U.S. airports with 10,000 or more annual enplanements that own, lease, or operate shared-use automated kiosks. Research for our initial regulatory flexibility analysis identified no small carriers or small airport authorities covered by the proposed accessibility requirements that owned or operated kiosks. Moreover, we received no comments on the proposed requirements during the SNPRM public comment period from small carriers (those exclusively operating aircraft with 60 or fewer seats), small airport authorities (those publicly owned by jurisdictions with fewer than 50,000 inhabitants or privately owned by small entities with annual revenues of \$30 million or less under the Small Business Administration (SBA) size standard), or other stakeholders that are small entities. For this final rule, therefore, we conducted no further analysis on the impact of the kiosk accessibility requirements on small entities.

On the basis of the examination discussed above, the Department certifies that this rule will not have a significant economic impact on a substantial number of small entities. A copy of the Final Regulatory Flexibility Analysis has been placed in docket.

#### E. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA), a Federal agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid control number assigned by the Office of Management and Budget (OMB) (Pub. L. 104-13, 49 U.S.C. 3501 et seq.). The Department may not impose a penalty on persons

for violating information collection requirements when an information collection required to have a current OMB control number does not have one.

The final rule contains two new information collection requirements that require approval by OMB under the PRA. Specifically, section 382.43 requires carriers to provide a mechanism on their Web sites for passengers to provide online notification of their requests for disability accommodation services (e.g., enplaning/deplaning assistance, deaf/hard of hearing communication assistance, escort to service animal relief area, etc.) within two years after the effective date of this final rule. Section 382.43 also requires carriers to ensure that a disclaimer is activated when a user clicks a link on a primary Web site to embedded third-party software or an external Web site. The disclaimer must inform the user that the software/Web site is not within the carrier's control and may not follow the same accessibility policies.

As required by the PRA, the Department invites interested persons to submit comments on any aspect of these information collections for 60 days, including the following: (1) the necessity and utility of the information collection, (2) the accuracy of the estimate of the burden, (3) ways to enhance the quality, utility, and clarity of the information to be collected, and (4) ways to minimize the burden of collection without reducing the quality of the collected information. Organizations and individuals desiring to submit comments on these information collection requirements should direct them to the Office of Management and Budget, Attention: Desk Officer for the Office of the Secretary of Transportation, Office of Information and Regulatory Affairs, 725 17th Street N.W., Washington, DC 20503, and should also send a copy of their comments to: Department of Transportation, Office of Aviation Enforcement and Proceedings, Office of the General Counsel, 1200 New Jersey Avenue, S.E., Washington, DC 20590.

As noted above, the first of these two new information collections is mandated by the requirement that carriers that market air transportation online to customers in the U.S. make a disability accommodation service request function available on their primary Web site within two years after the effective date of this rule. The types of accommodations a passenger with a disability may request through the function would most often include, but are not limited to, wheelchair assistance, seating accommodation, escort assistance for a visually impaired passenger, and stowage of an assistive device. Carriers are permitted to require that a passenger with a disability provides his/her contact information (e.g., telephone number, e-mail address) when making an online service request.

The Department anticipates that carriers will create a form that contains 1) check boxes corresponding to a listing of the current IATA disability-related Special Service Request (SSR) codes currently used to flag electronic ticket records of passengers requesting assistance, 2) fields for passenger contact information to verify requested services, and 3) an open text box to describe the specific needs and the services being requested. We anticipate that each covered U.S. and foreign carrier that markets scheduled air transportation to the general public in the United States would incur initial costs associated with developing and reviewing the design and implementation plan for the request form, developing, coding, and integrating the form into the Web site, as well as testing, debugging, and connecting the form with a backend database to store the information. None of these initial costs involve recordkeeping or reporting activities under the meaning of the PRA. The revised final regulatory analysis (FRA) estimates that it will take an average of 32 labor hours per carrier to develop, implement, integrate, connect, and test the online request form. Up to 28 additional hours eventually may be needed to revise request-handling procedures and to train staff in the changes resulting from the new form. Should carrier

associations or some other entity develop a common request form that all carriers could adapt and incorporate to their Web sites, the initial costs per carrier would be reduced.

The second information collection is a requirement for carriers to provide a disclaimer notice for each link on its primary Web site that enables a user to access software or an external Web site that may not follow the same accessibility policies as the primary Web site. The disclaimer notice must be activated the first time a user clicks such a link before beginning the software download or transferring the user to the external Web site. We anticipate that each covered U.S. and foreign carrier that markets scheduled air transportation to the general public in the United States will incur initial costs associated with identifying all links on the Web site that may require a disclaimer, developing and reviewing the design and language for the disclaimer notice, as well as developing, testing, and deploying the code that provides this notice to Web site visitors. However, none of these initial costs involves recordkeeping or reporting activities under the meaning of the PRA. The incremental labor hours associated with providing the required disclaimer may vary depending on the number of links on the Web site to which this requirement applies. The revised FRA estimates that it will take an average of 6 labor hours per carrier to develop, test, and deploy the disclaimer notice.

The title, a description of the respondents, and an estimate of the annual recordkeeping and periodic reporting burden are set forth below for each of these information collections:

1. Requirement to make a disability accommodation service request function available on the primary Web site.

*Respondents:* U.S. and foreign air carriers that own or control a primary Web site that markets air transportation within, to, or from the United States, or a tour (i.e., a combination of air transportation and ground or cruise accommodations), or a tour component (e.g., a hotel stay

of a tour) that includes air transportation within, to, or from the United States, and that operate at least one aircraft with a seating capacity of more than 60 passengers.

*Estimated Annual Burden on Respondents:* 32 hours.

*Estimated Total Annual Burden:* 3,552 hours.

*Frequency:* One time.

2. Requirement to provide a disclaimer notice to users when clicking a link on a primary Web site to embedded third-party software or an external Web site.

*Respondents:* U.S. and foreign air carriers that own or control a primary Web site that markets air transportation within, to, or from the United States, or a tour (i.e., a combination of air transportation and ground or cruise accommodations), or a tour component (e.g., a hotel stay of a tour) that includes air transportation within, to, or from the United States, and that operate at least one aircraft with a seating capacity of more than 60 passengers.

*Estimated Annual Burden on Respondents:* 6 hours.

*Estimated Total Annual Burden:* 666 hours.

*Frequency:* One time.

#### F. Unfunded Mandates Reform Act

The requirements of Title II of the Unfunded Mandates Reform Act of 1995 do not apply to civil rights requirements mandating nondiscrimination; therefore, the Department has determined that the Act does not apply to this final rule.

Issued this November 1, 2013, at Washington, DC.

Anthony R. Foxx,  
Secretary of Transportation.

## **List of Subjects**

### *14 CFR Part 382*

Air carriers, Civil rights, Individuals with disabilities, Reporting and recordkeeping requirements.

### *14 CFR Part 399*

Administrative practice and procedure, Air carriers, Air rates and fares, Air taxis, Consumer protection, Small businesses

### *49 CFR Part 27*

Airports, Civil rights, Individuals with disabilities, Reporting and recordkeeping requirements

For the reasons set forth in the preamble, the Department amends 14 CFR parts 382 and 399 and 49 CFR part 27 as follows:

## **Title 14 – Aeronautics and Space**

### **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.

2. Section 382.3 is amended by revising the definition of “air transportation” and adding definitions for “automated airport kiosk,” “conforming alternate version,” “flight-related services,” “primary (or main) Web site,” and “shared-use automated airport kiosk” in alphabetical order to read as follows:

### §382.3 What do the terms in this rule mean?

\* \* \* \* \*

*Air Transportation* means interstate or foreign air transportation or the transportation of mail by aircraft, as defined in 49 U.S.C. 40102. Generally this refers to transportation by aircraft within, to or from the United States.

\* \* \* \* \*

*Automated airport kiosk* means a self-service transaction machine that a carrier owns, leases, or controls and makes available at a U.S. airport to enable customers to independently obtain flight-related services.

\* \* \* \* \*

*Conforming alternate version* means a Web page that allows a corresponding non-conforming Web page on the primary Web site to be included within the scope of conformance as long as it meets the WCAG 2.0 Level AA success criteria, is up-to-date and contains the same information and functionality in the same language as the non-conforming page. At least one of the following applies to a conforming alternative version:

- (1) The conforming version can be reached from the non-conforming page via an accessibility-supported mechanism; or
- (2) The non-conforming version can only be reached from the conforming version; or
- (3) The non-conforming version can only be reached from a conforming page that also provides a mechanism to reach the conforming version.

\* \* \* \* \*

*Flight-related services* mean functions related to air travel including, but not limited to, ticket purchase, rebooking cancelled flights, seat selection, and obtaining boarding passes or bag tags.

\* \* \* \* \*

*Primary (or Main) Web site* means the Web site that is accessed upon entering the uniform resource locator (e.g., [www.carriername.com](http://www.carriername.com), [www.airline.designatorcode.com](http://www.airline.designatorcode.com)) in an Internet browser from a standard desktop or laptop computer where the carrier advertises or sells air transportation to the public.

\* \* \* \* \*

*Shared-use automated airport kiosk* means a self-service transaction machine that is jointly owned, controlled or leased by an airport operator and carriers and/or an independent service provider and that provides carrier software applications which enable customers to independently access flight-related services.

\* \* \* \* \*

**§ 382.31 [Amended]**

3. In § 382.31, paragraph (c) is removed.
4. Section 382.43 is amended by revising the section heading and adding paragraphs (c)

through (e) to read as follows:

**§ 382.43 Must information and reservation services of carriers be accessible to individuals with visual, hearing, and other disabilities?**

\* \* \* \* \*

(c) If you are a U.S. or foreign air carrier that operates at least one aircraft having a designed seating capacity of more than 60 passengers and owns or controls a primary Web site that markets passenger air transportation, or a tour (i.e., a combination of air transportation and ground or cruise accommodations), or tour component (e.g., a hotel stay) that must be purchased with air transportation, you must ensure the public-facing Web pages on your primary Web site are accessible to individuals with disabilities as provided in paragraphs (c)(1) through (4) of this

section. Only Web sites that market air transportation to the general public in the United States must be accessible to individuals with disabilities. The following are among the characteristics of a primary Web site that markets to the general public in the U.S.: the content can be viewed in English, the site advertises or sells flights operating to, from, or within the United States, and the site displays fares in U.S. dollars.

(1) Your primary Web site must conform to all Success Criteria and all Conformance Requirements from the World Wide Web Consortium (W3C) Recommendation 11 December 2008, Website Content Accessibility Guidelines (WCAG) 2.0 for Level AA as follows:

(i) Web pages associated with obtaining the following core air travel services and information that are offered on your primary Web site are conformant by December 12, 2015:

(A) Booking or changing a reservation, including all flight amenities;

(B) Checking in for a flight;

(C) Accessing a personal travel itinerary;

(D) Accessing the status of a flight;

(E) Accessing a personal frequent flyer account;

(F) Accessing flight schedules; and

(G) Accessing carrier contact information.

(ii) All remaining Web pages on your primary Web site are conformant by December 12, 2016.

(2) Your primary Web site must be tested in consultation with individuals with disabilities or members of disability organization(s) who use or want to use carrier Web sites to research or book air transportation in order to obtain their feedback on the Web site's accessibility and usability before the dates specified in paragraph (c)(1) of this section. Collectively, such

individuals must be able to provide feedback on the usability of the Web site by individuals with visual, auditory, tactile, and cognitive disabilities. Consultation is required to ensure that your Web site is usable by individuals with disabilities by the date specified in paragraph (c)(1).

(3) You are permitted to use a Level AA conforming alternate version only when conforming a public-facing Web page to all WCAG 2.0 Level AA success criteria would constitute an undue burden or fundamentally alter the information or functionality provided by that page.

(4) You must assist prospective passengers who indicate that they are unable to use your Web site due to a disability and contact you through other channels (e.g., by telephone or at the ticket counter) as follows:

(i) Disclose Web-based discount fares to the passenger if his or her itinerary qualifies for the discounted fare.

(ii) Provide Web-based amenities to the passenger, such as waiving any fee applicable to making a reservation or purchasing a ticket using a method other than your Web site (e.g., by telephone), unless the fee applies to other customers purchasing the same fare online.

(d) As a carrier covered under paragraph (c) of this section, you must provide a mechanism on your primary Web site for persons with disabilities to request disability accommodation services for future flights, including but not limited to wheelchair assistance, seating accommodation, escort assistance for a visually impaired passenger, and stowage of an assistive device no later than December 12, 2015. You may require individuals who request accommodations using this mechanism to provide contact information (e.g., name, daytime phone, evening phone, and e-mail address) for follow-up by your customer service department or medical desk.

(e) As a carrier covered under paragraph (c) of this section, you must provide a disclaimer activated when a user clicks a link on your primary Web site to an external Web site or to third-party software informing the user that the Web site or software may not follow the same accessibility policies no later than December 12, 2016.

5. Section 382.57 is revised to read as follows:

**§382.57 What accessibility requirements apply to automated airport kiosks?**

(a) As a carrier, you must comply with the following requirements with respect to any automated airport kiosk you own, lease, or control at a U.S. airport with 10,000 or more enplanements per year.

(1) You must ensure that all automated airport kiosks installed on or after December 12, 2016, are models that meet the design specifications set forth in paragraph (c) of this section until at least 25 percent of automated kiosks provided in each location at the airport (i.e., each cluster of kiosks and all stand-alone kiosks at the airport) meets this specification.

(2) You must ensure that at least 25 percent of automated kiosks you own, lease, or control in each location at a U.S. airport meet the design specifications in paragraph (c) of this section by December 12, 2022.

(3) When the kiosks provided in a location at the airport perform more than one function (e.g., print boarding passes/bag tags, accept payment for flight amenities such as seating upgrades/meals/WiFi access, rebook tickets, etc.), you must ensure that the accessible kiosks provide all the same functions as the inaccessible kiosks in that location.

(4) You must ensure that a passenger with a disability who requests an accessible automated kiosk is given priority access to any available accessible kiosk you own, lease, or control in that location at the airport.

(5) You must ensure that each automated airport kiosk that meets the design specifications in paragraph (c) of this section is:

(i) Visually and tactilely identifiable to users as accessible (e.g., an international symbol of accessibility affixed to the front of the device).

(ii) Maintained in proper working condition.

(b) As a carrier, you must comply with the following requirements for any shared-use automated airport kiosks you jointly own, lease, or control at a U.S. airport with 10,000 or more enplanements per year.

(1) You must ensure that all shared-use automated airport kiosks you jointly own, lease, or control installed on or after December 12, 2016, meet the design specifications in paragraph (c) of this section until at least 25 percent of automated kiosks provided in each location at the airport (i.e., each cluster of kiosks and all stand-alone kiosks at an airport) meet this specification.

(2) You must ensure that at least 25 percent of shared-use automated kiosks you own, lease, or control in each location at the airport meet the design specifications in paragraph (c) of this section by December 12, 2022.

(3) When shared-use automated kiosks provided in a location at the airport perform more than one function (e.g., print boarding passes/bag tags, accept payment for flight amenities such as seating upgrades/meals/WiFi access, rebook tickets, etc.), you must ensure that the accessible kiosks provide all the same functions as the inaccessible kiosks in that location.

(4) You must ensure that each automated airport kiosk that meets the design specifications set forth in paragraph (c) of this section is:

(i) Visually and tactilely identifiable to users as accessible (e.g., an international symbol of accessibility affixed to the front of the device; and

(ii) Maintained in proper working condition.

(5) As a carrier, you are jointly and severally liable with airport operators and/or other participating carriers for ensuring that shared-use automated airport kiosks are compliant with the requirements of paragraphs (b) and (c) of this section.

(c) You must ensure that the automated airport kiosks provided in accordance with this section conform to the following technical accessibility standards with respect to their physical design and the functions they perform:

(1) *Self contained.* Except for personal headsets and audio loops, automated kiosks must be operable without requiring the user to attach assistive technology.

(2) *Clear floor or ground space.* A clear floor or ground space complying with section 305 of the U.S. Department of Justice's 2010 ADA Standards for Accessible Design, 28 CFR 35.104 (defining the "2010 Standards" for title II as the requirements set forth in appendices B and D to 36 CFR part 1191 and the requirements contained in 28 CFR 35.151) (hereinafter 2010 ADA Standards) must be provided.

(3) *Operable parts.* Operable parts must comply with section 309 of the 2010 ADA Standards, and the following requirements:

(i) *Identification.* Operable parts must be tactilely discernible without activation;

(ii) *Timing.* Where a timed response is required, the user must be alerted visually and by touch or sound and must be given the opportunity to indicate that more time is required;

(iii) *Status indicators.* Status indicators, including all locking or toggle controls or keys (e.g., Caps Lock and Num Lock keys), must be discernible visually and by touch or sound; and

(iv) *Color*. Color coding must not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

(4) *Privacy*. Automated airport kiosks must provide the opportunity for the same degree of privacy of input and output available to all individuals. However, if an option is provided to blank the screen in the speech output mode, the screen must blank when activated by the user, not automatically.

(5) *Output*. Automated airport kiosks must comply with this paragraphs (c)(5)(i) through (iv) of this section.

(i) *Speech output enabled*. Automated airport kiosks must provide an option for speech output. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all other visual information for full use must be accessible to and independently usable by individuals with vision impairments. Speech output must be delivered through a mechanism that is readily available to all users, including but not limited to, an industry standard connector or a telephone handset. Speech output must be recorded or digitized human, or synthesized. Speech output must be coordinated with information displayed on the screen. Speech output must comply with paragraphs (c)(5)(i)(A) through (F) of this section.

(A) When asterisks or other masking characters are used to represent personal identification numbers or other visual output that is not displayed for security purposes, the masking characters must be spoken (“\*” spoken as “asterisk”) rather than presented as beep tones or speech representing the concealed information.

(B) Advertisements and other similar information are not required to be audible unless they convey information that can be used in the transaction being conducted.

(C) Speech for any single function must be automatically interrupted when a transaction is selected or navigation controls are used. Speech must be capable of being repeated and paused by the user.

(D) Where receipts, tickets, or other outputs are provided as a result of a transaction, speech output must include all information necessary to complete or verify the transaction, except that -

(1) Automated airport kiosk location, date and time of transaction, customer account numbers, and the kiosk identifier are not required to be audible;

(2) Information that duplicates information available on-screen and already presented audibly is not required to be repeated; and

(3) Printed copies of a carrier's contract of carriage, applicable fare rules, itineraries and other similar supplemental information that may be included with a boarding pass are not required to be audible.

(ii) *Volume control.* Automated kiosks must provide volume control complying with paragraphs (c)(5)(ii)(A) and (B) of this section.

(A) *Private listening.* Where speech required by paragraph (c)(5)(i) of this section is delivered through a mechanism for private listening, the automated kiosk must provide a means for the user to control the volume. A function must be provided to automatically reset the volume to the default level after every use.

(B) *Speaker volume.* Where sound is delivered through speakers on the automated kiosk, incremental volume control must be provided with output amplification up to a level of at least 65 dB SPL. Where the ambient noise level of the environment is above 45 dB SPL, a volume gain of at least 20 dB above the ambient level must be user selectable. A function must be provided to automatically reset the volume to the default level after every use.

(iii) *Captioning*. Multimedia content that contains speech or other audio information necessary for the comprehension of the content must be open or closed captioned.

Advertisements and other similar information are not required to be captioned unless they convey information that can be used in the transaction being conducted.

(iv) *Tickets and boarding passes*. Where tickets or boarding passes are provided, tickets and boarding passes must have an orientation that is tactilely discernible if orientation is important to further use of the ticket or boarding pass.

(6) *Input*. Input devices must comply with paragraphs (c)(6)(i) through (iv) of this section.

(i) *Input controls*. At least one input control that is tactilely discernible without activation must be provided for each function. Where provided, key surfaces not on active areas of display screens, must be raised above surrounding surfaces. Where touch or membrane keys are the only method of input, each must be tactilely discernible from surrounding surfaces and adjacent keys.

(ii) *Alphabetic keys*. Alphabetic keys must be arranged in a QWERTY keyboard layout. The “F” and “J” keys must be tactilely distinct from the other keys.

(iii) *Numeric keys*. Numeric keys must be arranged in a 12-key ascending or descending keypad layout or must be arranged in a row above the alphabetic keys on a QWERTY keyboard. The “5” key must be tactilely distinct from the other keys.

(iv) *Function keys*. Function keys must comply with paragraphs (c)(6)(iv)(A) and (B) of this section.

(A) *Contrast*. Function keys must contrast visually from background surfaces. Characters and symbols on key surfaces must contrast visually from key surfaces. Visual contrast must be either light-on-dark or dark-on-light. However, tactile symbols required by (c)(6)(iv)(B) are not required to comply with (c)(6)(iv)(A) of this section.

(B) *Tactile symbols*. Function key surfaces must have tactile symbols as follows: Enter or Proceed key: raised circle; Clear or Correct key: raised left arrow; Cancel key: raised letter ex; Add Value key: raised plus sign; Decrease Value key: raised minus sign.

(7) *Display screen*. The display screen must comply with paragraphs (c)(7)(i) and (ii) of this section.

(i) *Visibility*. The display screen must be visible from a point located 40 inches (1015 mm) above the center of the clear floor space in front of the automated kiosk.

(ii) *Characters*. Characters displayed on the screen must be in a sans serif font. Characters must be 3/16 inch (4.8 mm) high minimum based on the uppercase letter “I.” Characters must contrast with their background with a minimum luminosity contrast ratio of 3:1.

(8) *Braille instructions*. Braille instructions for initiating the speech mode must be provided. Braille must comply with section 703.3 of the 2010 ADA Standards.

(9) *Biometrics*. Biometrics must not be the only means for user identification or control, unless at least two biometric options that use different biological characteristics are provided.

(d) You must provide equivalent service upon request to passengers with a disability who cannot readily use your automated airport kiosks (e.g., by directing a passenger who is blind to an accessible automated kiosk, assisting a passenger in using an inaccessible automated kiosk, assisting a passenger who due to his or her disability cannot use an accessible automated kiosk by allowing the passenger to come to the front of the line at the check-in counter).

#### **PART 399 – STATEMENTS OF GENERAL POLICY [AMENDED]**

4. The authority citation for part 399 is revised to read as follows:

**Authority:** 49 U.S.C. 41712

5. Section 399.80 is amended by revising the introductory text, adding reserved paragraphs (o) through (r), and adding paragraph (s) to read as follows:

**§ 399.80 Unfair and deceptive practices of ticket agents.**

It is the policy of the Department to regard as an unfair or deceptive practice or unfair method of competition the practices enumerated in paragraphs (a) through (m) of this section by a ticket agent of any size and the practice enumerated in paragraph (s) by a ticket agent that sells air transportation online and is not considered a small business under the Small Business Administration's size standards set forth in 13 CFR 121.201:

\* \* \* \* \*

(o)-(r) [Reserved]

(s) Failing to disclose and offer Web-based discount fares on or after June 10, 2014, to prospective passengers who contact the agent through other channels (e.g., by telephone or in the agent's place of business) and indicate they are unable to use the agent's Web site due to a disability.

**Title 49 - Transportation**

**PART 27—NONDISCRIMINATION ON THE BASIS OF DISABILITY IN PROGRAMS OR ACTIVITIES RECEIVING FEDERAL FINANCIAL ASSISTANCE**

6. The authority citation for part 27 continues to read as follows:

**Authority:** Sec. 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794); sec. 16 (a) and (d) of the Federal Transit Act of 1964, as amended (49 U.S.C. 5310 (a) and (f)); sec. 165 (b) of the Federal-Aid Highway Act of 1973, as amended (23 U.S.C. 142 nt.).

7. Section 27.71 is amended by adding reserved paragraphs (h) and (i) and paragraphs (j) and (k) to read as follows:

**§27.71 Airport facilities.**

\* \* \* \* \*

(h) [Reserved]

(i) [Reserved]

(j) Shared-use automated airport kiosks. This paragraph applies to U.S. airports with 10,000 or more annual enplanements.

(1) Airport operators that jointly own, lease, or control automated airport kiosks with carriers at U.S. airports must ensure that all shared-use automated kiosks installed on or after December 12, 2016 meet the design specifications set forth in paragraph (k) of this section until at least 25 percent of kiosks provided in each location at the airport (i.e., each cluster of kiosks and all stand-alone kiosks at the airport) meet this specification.

(2) Airport operators must ensure that at least 25 percent of shared-use automated airport kiosks they jointly own, lease, or control with carriers in each location at the airport meet the design specifications in paragraph (k) of this section by December 12, 2022.

(3) When shared-use kiosks provided in a location at the airport perform more than one function (e.g., print boarding passes/bag tags, accept payment for flight amenities such as seating upgrades/meals/WiFi access, rebook tickets, etc.), the accessible kiosks must provide all the same functions as the inaccessible kiosks in that location.

(4) Each shared-use automated kiosk that meets the design specifications in paragraph (k) of this section must be visually and tactilely identifiable to users as accessible (e.g., an international symbol of accessibility affixed to the front of the device) and maintained in proper working condition.

(5) Airport operators are jointly and severally liable with carriers for ensuring that shared-use automated airport kiosks are compliant with the requirements of paragraphs (j) and (k) of this section.

(k) Shared-use automated airport kiosks provided in accordance with paragraph (j) of this section must conform to the following technical accessibility standards with respect to their physical design and the functions they perform:

(1) *Self contained.* Except for personal headsets and audio loops, automated kiosks must be operable without requiring the user to attach assistive technology.

(2) *Clear floor or ground space.* A clear floor or ground space complying with section 305 of the U.S. Department of Justice's 2010 ADA Standards for Accessible Design, 28 CFR 35.104 (defining the "2010 Standards" for title II as the requirements set forth in appendices B and D to 36 CFR part 1191 and the requirements contained in 28 CFR 35.151) (hereinafter 2010 ADA Standards) must be provided.

(3) *Operable parts.* Operable parts must comply with section 309 of the 2010 ADA Standards, and the following requirements:

(i) *Identification.* Operable parts must be tactilely discernible without activation;

(ii) *Timing.* Where a timed response is required, the user must be alerted visually and by touch or sound and must be given the opportunity to indicate that more time is required;

(iii) *Status indicators.* Status indicators, including all locking or toggle controls or keys (e.g., Caps Lock and Num Lock keys), must be discernible visually and by touch or sound; and

(iv) *Color.* Color coding must not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

(4) *Privacy*. Automated airport kiosks must provide the opportunity for the same degree of privacy of input and output available to all individuals. However, if an option is provided to blank the screen in the speech output mode, the screen must blank when activated by the user, not automatically.

(5) *Output*. Automated airport kiosks must comply with paragraphs (k)(5)(i) through (iv) of this section.

(i) *Speech output enabled*. Automated airport kiosks must provide an option for speech output. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all other visual information for full use must be accessible to and independently usable by individuals with vision impairments. Speech output must be delivered through a mechanism that is readily available to all users, including but not limited to, an industry standard connector or a telephone handset. Speech output must be recorded or digitized human, or synthesized. Speech output must be coordinated with information displayed on the screen. Speech output must comply with paragraphs (k)(5)(i)(A) through (D) of this section.

(A) When asterisks or other masking characters are used to represent personal identification numbers or other visual output that is not displayed for security purposes, the masking characters must be spoken (“\*” spoken as “asterisk”) rather than presented as beep tones or speech representing the concealed information.

(B) Advertisements and other similar information are not required to be audible unless they convey information that can be used in the transaction being conducted.

(C) Speech for any single function must be automatically interrupted when a transaction is selected or navigation controls are used. Speech must be capable of being repeated and paused by the user.

(D) Where receipts, tickets, or other outputs are provided as a result of a transaction, speech output must include all information necessary to complete or verify the transaction, except that -

(1) Automated airport kiosk location, date and time of transaction, customer account numbers, and the kiosk identifier are not required to be audible;

(2) Information that duplicates information available on-screen and already presented audibly is not required to be repeated; and

(3) Printed copies of a carrier's contract of carriage, applicable fare rules, itineraries and other similar supplemental information that may be included with a boarding pass are not required to be audible.

(ii) *Volume control.* Automated kiosks must provide volume control complying with paragraphs (k)(5)(ii)(A) and (B) of this section.

(A) *Private listening.* Where speech required by paragraph (k)(5)(i) is delivered through a mechanism for private listening, the automated kiosk must provide a means for the user to control the volume. A function must be provided to automatically reset the volume to the default level after every use.

(B) *Speaker volume.* Where sound is delivered through speakers on the automated kiosk, incremental volume control must be provided with output amplification up to a level of at least 65 dB SPL. Where the ambient noise level of the environment is above 45 dB SPL, a volume gain of at least 20 dB above the ambient level must be user selectable. A function must be provided to automatically reset the volume to the default level after every use.

(iii) *Captioning*. Multimedia content that contains speech or other audio information necessary for the comprehension of the content must be open or closed captioned.

Advertisements and other similar information are not required to be captioned unless they convey information that can be used in the transaction being conducted.

(iv) *Tickets and boarding passes*. Where tickets or boarding passes are provided, tickets and boarding passes must have an orientation that is tactilely discernible if orientation is important to further use of the ticket or boarding pass.

(6) *Input*. Input devices must comply with paragraphs (k)(6)(i) through (iv) of this section.

(i) *Input controls*. At least one input control that is tactilely discernible without activation must be provided for each function. Where provided, key surfaces not on active areas of display screens, must be raised above surrounding surfaces. Where touch or membrane keys are the only method of input, each must be tactilely discernible from surrounding surfaces and adjacent keys.

(ii) *Alphabetic keys*. Alphabetic keys must be arranged in a QWERTY keyboard layout. The “F” and “J” keys must be tactilely distinct from the other keys.

(iii) *Numeric keys*. Numeric keys must be arranged in a 12-key ascending or descending keypad layout or must be arranged in a row above the alphabetic keys on a QWERTY keyboard. The “5” key must be tactilely distinct from the other keys.

(iv) *Function keys*. Function keys must comply with paragraphs (k)(6)(iv)(A) and (B) of this section.

(A) *Contrast*. Function keys must contrast visually from background surfaces. Characters and symbols on key surfaces must contrast visually from key surfaces. Visual contrast must be either light-on-dark or dark-on-light. However, tactile symbols required by (k)(6)(iv)(B) are not required to comply with paragraph (k)(6)(iv)(A) of this section.

(B) *Tactile symbols*. Function key surfaces must have tactile symbols as follows: Enter or Proceed key: raised circle; Clear or Correct key: raised left arrow; Cancel key: raised letter ex; Add Value key: raised plus sign; Decrease Value key: raised minus sign.

(7) *Display screen*. The display screen must comply with paragraphs (k)(7)(i) and (ii) of this section.

(i) *Visibility*. The display screen must be visible from a point located 40 inches (1015 mm) above the center of the clear floor space in front of the automated kiosk.

(ii) *Characters*. Characters displayed on the screen must be in a sans serif font. Characters must be 3/16 inch (4.8 mm) high minimum based on the uppercase letter “I.” Characters must contrast with their background with a minimum luminosity contrast ratio of 3:1.

(8) *Braille instructions*. Braille instructions for initiating the speech mode must be provided. Braille must comply with section 703.3 of the 2010 ADA Standards.

(9) *Biometrics*. Biometrics must not be the only means for user identification or control, unless at least two biometric options that use different biological characteristics are provided.

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