U.S. DEPARTMENT OF TRANSPORATION
OFFICE OF THE SECRETARY

Accommodations for Individuals Who are Deaf, Hard of Hearing, or Deaf-Blind	)))	Docket No. OST-2006-23999

COMMENTS OF THE AIR TRANSPORT ASSOCIATION OF AMERICA, INC.

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I. INTRODUCTION

The Air Transport Association of America, Inc.,[1] the principal trade and service association of the U.S. airline industry, submits these comments on behalf of its passenger-carrying members, which account for more than ninety percent of all passenger traffic carried annually by U.S. airlines. ATA appreciates this opportunity to share its members' views on the Department's Notice of Proposed Rulemaking (NPRM, proposal, or proposed rule) concerning accommodations for individuals who are deaf, hard of hearing, or deaf-blind (herein, "passengers with hearing disabilities").[2]

The NPRM would amend the Department's rules that implement the Air Carrier Access Act (ACAA or Act)[3] to require additional accommodations for passengers with hearing disabilities. Among other things, the proposal seeks to require airlines to provide captioning on audio-video displays and to provide prompt access to the same information provided to other passengers at U.S. airports and on-board aircraft. The proposal also seeks to require airlines to provide captioned in-flight safety, information, and entertainment content. The Department's proposal would have a direct and substantial impact on ATA's passenger-carrying members.

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[1] ATA's members are: ABX Air, Inc., Alaska Airlines, Inc., Aloha Airlines, Inc., American Airlines, Inc., ASTAR Air Cargo, Inc., ATA Airlines, Inc., Atlas Air, Inc., Continental Airlines, Inc., Delta Air Lines, Inc., Evergreen International Airlines, Inc., FedEx Corporation, Hawaiian Airlines, JetBlue Airways Corp., Midwest Airlines, Inc., Northwest Airlines, Inc., Southwest Airlines Co., United Airlines, UPS Airlines, and US Airways, Inc. ATA's associate members are: Aeromexico, Air Canada, Air Jamaica, and Mexicana.

[2] Accommodations for Individuals Who are Deaf, Hard of Hearing, or Deaf-Blind, 71 Fed. Reg. 9,285 (Feb. 23, 2006).

[3] The current version of the Air Carrier Access Act (ACAA) states: "In providing air transportation, an air carrier, including (subject to section 40105(b)) any foreign air carrier, may not discriminate against an otherwise qualified individual on the following grounds: (1) the individual has a physical or mental impairment that substantially limits one or more major life activities[;] (2) the individual has a record of such an impairment[; or] (3) the individual is regarded as having such an impairment. 49 U.S.C. § 41705.

The NPRM was preceded by an informal effort to develop non-regulatory means of enhancing accommodations for passengers with hearing disabilities. ATA and several of its members, as well as other aviation industry associations, participated in the Deaf, Hard of Hearing and Deaf-Blind Workgroup (DHHB Workgroup or Workgroup), which the National Council on Disability (NCD) convened pursuant to a contract with the Department. Unfortunately, while agreement was reached on a few points, there was fundamental disagreement about the non-regulatory purpose of this exercise and several issues proved to be contentious. ATA's members were not aware that NCD intended to submit the final report of the Workgroup as a petition for rulemaking. The Department should not construe our active participation in the Workgroup as an endorsement of the petition. Indeed, the "Comments Guide" of the Petition makes clear that the airline parties did not agree with the majority of the Petition's proposals.

II. EXECUTIVE SUMMARY

ATA cannot support the NPRM. The NPRM, and its accompanying Initial Regulatory Evaluation (IRE), mistakenly characterize the applicable substantive legal standard under the ACAA to be equal access. As we discussed at length in our medical oxygen comments, however, the ACAA is not a guarantee of equal access to each and every aspect of air travel; it requires nondiscriminatory *access* to air travel.[4] Thus, it requires only that airlines make reasonable accommodations that do not pose undue burdens on airlines in order to permit access to air transportation.[5] Indeed, consistent with this standard, Part 382 states that airlines are "not

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[4] *Id.*

[5] For the substantive requirements of the ACAA, the Department has looked to applicable standards under the Americans with Disabilities Act (ADA) (42 U.S.C. §§ 12101 *et seq.*). *See* Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance; Nondiscrimination on the Basis of Handicap in Air Travel, 61 Fed. Reg. 56,409, 56,417 (Nov. 1, 1996). Courts have also looked to the ADA for applicable ACAA standards. *See, e.g.*, Love v. Delta Air Lines, 179 F. Supp.2d 1313, 1322 (D. Ala. 2001),

required to make [reasonable accommodations] that would constitute an undue burden or would fundamentally alter their program."[6] Because the NPRM would apply a different standard, it is not in accordance with applicable law. DOT has conflated civil rights with customer service matters that it should leave to the competitive marketplace to address.

Moreover, the IRE suffers from a number of flaws that cause it to understate the proposal's costs and overstate its benefits. For example:

- The IRE confuses revenue and profit and thereby fails to account for the costs of transporting the additional passengers DOT contends the NPRM would generate.

- The IRE both inflates and fails to establish a basis for the additional passenger enplanements that the NPRM claims will be generated.

- In calculating the expected benefits from captioning in-flight entertainment content, the IRE fails to take into account that video services are not available on every flight.

- The IRE fails to account for fuel costs associated with any requirements to carry additional or heavier equipment or video programming onboard aircraft.

In fact, the NPRM's actual costs outweigh its anticipated benefits. Because the IRE has miscalculated and overstated the NPRM's anticipated benefits, the NPRM imposes an undue burden on airlines in contravention of the ACAA. For these reasons, the proposed rule also is arbitrary and capricious.

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overruled on other grounds by Love v. Delta Air Lines, 310 F.3d 1347 (11th Cir. 2002). Looking to the applicable ADA standards, the ACAA requires only that airlines provide passengers with disabilities with a reasonable accommodation that does not impose an undue burden on airlines and that does not fundamentally alter the operations of the airlines' businesses.

[6] 14 C.F.R. § 382.7.

Certain elements of the proposal are acceptable. For example, ATA's members agreed, in the DHHB Workgroup, to activate captioning, where available, on audio-video displays that airlines own, lease, or control in airport terminal areas. We, therefore, do not object to that aspect of the NPRM. Overall, however, the NPRM exceeds DOT's authority under the ACAA, and the IRE is fatally flawed. We urge DOT to withdraw the NPRM in its entirety, or to revise it so as to eliminate the undue burdens it creates.

III. THE NPRM'S BENEFITS DO NOT JUSTIFY ITS COSTS

As these comments demonstrate, the proposal's actual benefits would be significantly lower than the benefits projected in the IRE. Also, the proposal's actual costs would be significantly higher than the costs included in the IRE. In balancing the cost factors against the presumed benefits, many elements of the proposal are not reasonable and impose an undue burden on airlines. For that reason, the Department may not require them,[7] and overall the NPRM imposes an undue burden on airlines.

A. The IRE Overstates the NPRM's Anticipated Benefits

1. The IRE Miscalculates Increased Passenger Traffic and "Profit"

The IRE overstates the frequency of travel by passengers with hearing disabilities and the number of enplanements that would be attributable to these passengers. This error results in a significant overestimation of the NPRM's anticipated benefits. The IRE states that an estimated 6.3 million passengers with hearing disabilities travel each year.[8] For purposes of this analysis, we do not dispute that assumption. The IRE further states that each of these passengers accounts

[7] *See* note 4.

[8] *See* IRE, at 11.

for seven enplanements annually or two roundtrips per year.[9] Other available market data suggests, however, that passengers with disabilities (including but not limited to hearing disabilities) are likely to take only two roundtrips every two years,[10] or one roundtrip per passenger per year. The broadly accepted standard industry multiplier to convert roundtrips to enplanements is 2.8 rather than the 3.5 that the IRE used.

Using the DOT's assumption concerning the number of passengers with hearing disabilities (6.3 million) but the results of the Open Doors Organization Market Study for frequency of travel and the standard industry enplanements multiplier, we calculate that passengers with (all) disabilities account for approximately 17.6 million annual enplanements. The number of deaf and hard-of-hearing passengers would represent only a fraction of this number. This is far lower than the IRE's calculated annual enplanements of 44.1 million for passengers with hearing disabilities. Consequently, Section 4 of the IRE is inaccurate and overstates by a wide margin the projected "profit" attributable to passengers with hearing disabilities.

Moreover, in ATA's recent analysis of the Department's NPRM concerning medical oxygen (the Medical Oxygen NPRM),[11] we explained that the benefit-cost analysis in that rulemaking should have included fully allocated costs for each additional enplanement that the Department estimated the proposed rule would generate.[12] For an airline that has costs that exceed revenues,

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[9] *See* IRE, at 12.

[10] *See* Open Doors Organization Market Study (2005), available from the Open Doors Organization. Check http://www.opendoorsnfp.org for more information.

[11] Nondiscrimination on the Basis of Disability in Air Travel-Medical Oxygen and Portable Respiration Assistive Devices, 70 Fed. Reg. 53,108 (proposed Sept. 7, 2005) (to be codified at 14 C.F.R. pt. 382).

[12] *See* ATA's comments on the Medical Oxygen NPRM, p. APP B-2, available at http://dmses.dot.gov/docimages/pdf95/384003_web.pdf (ATA Medical Oxygen Comments).

each additional passenger theoretically generates no additional income. Since 2000, most U.S. airlines have reported large losses. Between 2001 and 2005, excluding extraordinary restructuring charges and gains, the industry posted $34.9 billion in cumulative net losses, including a $5.6 billion net loss in 2005. We are currently estimating a $2 billion industry-wide net loss for 2006. Clearly, the IRE is inconsistent with recent industry-wide profit experience. If DOT's profit estimate of $41.30 were correct, the industry would have enjoyed a positive profit or $26.8 billion in 2003.

To develop a reasonable, alternate estimate of the expected benefits from the NPRM, we used the data produced by the Campbell-Hill Aviation Group, Inc. (Campbell-Hill) included with our medical oxygen comments, which used cash flow as the appropriate metric for discounting future revenues and expenses. Based on the two most recent years of industry profitability (1998 and 1999), Campbell-Hill constructed an industry "average return" (6.82% of revenue), which when used provides a generous estimate of the NPRM's expected benefits to airlines. From that data, we calculate that each enplanement could result, on average, in only $8.31 in profit.[13] To calculate this figure, we took the average revenue per enplanement for the industry as estimated by the Department in the Medical Oxygen NPRM ($121.80)[14] and subtracted from that figure the average fully allocated cost per enplanement ($113.49) as calculated by Campbell-Hill.[15] The result is a mere $8.41 estimated average profit per enplanement. In sharp contrast to this figure,

[13] *See id.*

[14] *Id.*

[15] *Id.*

the IRE uses $41.30 for the average profit per enplanement.[16] Adjusting Exhibit 4-7 to use the standard 2.8 enplanements per roundtrip and the alternate, more accurate value for average profit per enplanement results in total projected benefits of only $8.16 million compared to the $101.39 million projected in the IRE. *See* ATA Exhibit 4-7c.[17] These adjustments alone result in an ultimate benefit-cost ratio that is much lower (0.55) than the 1.14 ratio that the IRE calculated. *See* ATA Exhibits 5-3 and 5-3a.

The IRE, however, repeats the inflated enplanement error in every element of its analysis, further degrading the benefit-cost ratio, even without adjusting, as we do in Section B below, for the underestimation of the NPRM's true costs.

2. The Benefits Analysis is Riddled With Other Flaws

The two errors identified above render the IRE unreliable for purposes of evaluating the NPRM's relative benefits and costs, and suggest instead that the proposed accommodations pose an undue burden on airlines. The IRE also contains a number of other errors concerning the projected benefits from the NPRM:

- The IRE does not appear to distinguish between international (or international long-haul) passengers and domestic passengers, which is an important consideration in calculating both costs and benefits

[16] *See* Exhibit 4-7, IRE, at 79. Other infirmities in the IRE are that it fails to use the distinct terms "revenue" and "profit" properly and appears to use them interchangeably. The IRE appears to do the same for the distinctly different concepts of revenue and profit. These distinction, however, are important to the accuracy of the analysis, so we recommend that the Department re-evaluate these aspects of the IRE.

[17] In the appendix to these comments, ATA reproduced some of the exhibits from the IRE and created additional versions of the exhibits in which we adjusted some of the variables to reflect more realistic assumptions about their values to show the effect of the adjustments. The appendix also includes a series of tables based on the IRE's Exhibit 5-3, which summarizes the benefit-cost ratios for individual elements of the NPRM and the overall NPRM, to show the effect of the various adjustments on the overall benefit-cost ratio for the NPRM.

- It is unclear whether the IRE benefits calculation is based on marginal or average numbers, and it assumes in all cases that all "new" passengers would be incremental and not displace "existing" passengers. That is an unreasonable assumption, especially at a time of lower capacity and high load factors.

- The IRE relies on data from 1993-2002 to project the expected revenues of the NPRM, but the industry has experienced major changes since then. For example, airlines are experiencing high load factors, high operating expenses, and high marginal costs driven by high fuel prices as well as comparatively lower fare levels and depressed revenue. As a result, profitability has eluded the industry. These factors render the IRE's projected benefits overly optimistic for the economic environment in which airlines are operating today and for the economic environment airlines can reasonably expect for the near future. Even if all the other elements of the IRE were accurate (and these comments demonstrate that they are not), this error alone makes the IRE unreliable as a basis for the NPRM.

- The IRE's estimated growth factor for travel by passengers with hearing disabilities is questionable, at best. The IRE uses a 0.25% growth factor to produce what purports to be a conservative estimate of the NPRM's benefits, but fails to provide an adequate explanation for using that value. Moreover, the IRE fails to discuss whether the projected "accessibility-induced travel" would come from wholly new passengers or from existing passengers who limit air travel because of allegedly inadequate accommodations.

- The IRE does not reliably establish how the particular provisions in the NPRM will result in increased passenger enplanements. For example, the IRE acknowledges that "there is

not a strict one-to-one comparison between training and the profits of increased enplanement though the two are intertwined. Training is required to effectively deliver the other requirements of the rule, increased traffic is a byproduct of both training and the other requirements, and training delivers equity benefits[,] which have not been quantified."[18] This level of speculation is inadequate as a matter of law to form the basis of agency decisionmaking.

- The IRE used the concept of "willingness to pay" (WTP) for at-home television viewing[19] as a proxy for the benefits from proposed section 382.51, which requires captions to be enabled on audio-video displays in airport terminal facilities that airlines own, lease, or control. The comparison is inappropriate and, like many other assumptions in the IRE, lacks an adequate justification. The IRE does not provide a basis for treating at-home television viewing and airport television viewing as comparable activities, and using the WTP for at-home television viewing as a proxy for airport television viewing very likely overstates the benefits a passenger derives from watching television at the airport while waiting for a flight.

- The attempt to quantify benefits from accessible in-flight entertainment (proposed section 382.69(b)) also lacks credibility. The IRE estimated that passengers with disabilities would watch 1.2 million more movies (or other IFE) if captioning were available and that each passenger would be willing to pay $1 for that benefit. This estimate and other variables in the IRE's analysis (*e.g.* round trips by passengers with hearing disabilities)

[18] IRE, at 83.

[19] *See* IRE, at 70.

are patently speculative and appear to be overly generous. If passengers with hearing disabilities travel half as much as the IRE assumes, then the benefits attributable to this requirement are half as much as the IRE projects.

- The IRE failed to take into account that informational and in-flight video content is not available on many flights, depending on whether an airline provides that amenity, whether the flight is long enough, and for other reasons. For example, in recent years some carriers have shifted long-haul domestic flights from wide-body to narrow-body equipment that do not have video equipment, thereby reducing the number of flights offering video entertainment.

B. The IRE Understates the NPRM's Projected Costs

1. Airport Flight Information Display Systems Are Much More Costly than the IRE Assumes

The discussion concerning Flight Information Displays (FIDs) to comply with proposed § 382.53 (passenger access to information at airports) is inaccurate. The IRE states that the acquisition cost is about $2,100 per display. Based on industry experience (one airline, for example, has acquired and installed over 500 FIDs), ATA estimates that the actual cost for this requirement would be about $15,000 per display, or about seven times the IRE's estimated cost. In addition, one airline incurred maintenance and repair expenses, which the IRE did not include, of $65,000 per year. The total program cost for this airline for the twenty-two airports where it has installed 521 FIDs (two FIDs per gate) was over $7 million. In contrast, the IRE estimated that all

affected airlines would be able to install similar systems in all hub airports for just $12.09 million.[20]

Even adjusting for the IRE's assumption that only one FID would be necessary for each gate, the $12.09 million cost estimate is completely inaccurate and significantly understates the NPRM's expected costs. This error alone would shift the benefit-cost ratio into negative territory (0.72), even assuming no adjustment in the IRE's purported benefits. Correcting for this error demonstrates that the NPRM imposes an undue burden on airlines, which the ACAA does not permit. *See* ATA Exhibits 3-4a and 5-3b. Our conservative estimate (assuming only one FID per gate and not including maintenance, repair, and other costs) is that this provision would cost over $110 million. *See* ATA Exhibit 3-4a. In stark contrast, the IRE erroneously estimates that this requirement would cost only $18.08 million.[21] This proposed requirement imposes an undue burden on airlines.

2. Onboard Flight Information Display Systems Will Be Much More Costly than Assumed

The IRE's discussion concerning on-board information displays also is inaccurate. The IRE states that LCD displays are available for $25 per display and plasma displays are available for $1,200 per display. Since the IRE does not explain the basis for these figures, we can only assume these are costs for standard, off-the-shelf consumer units. Using these cost figures is not appropriate or realistic because the FAA has not approved such equipment for use on aircraft. FAA-approved displays would cost much more. Equipment approved for on-board use must meet more stringent safety and reliability standards than are necessary for ordinary consumer

[20] Exhibit 3-4, IRE, at 50 (Year 2006 values).

[21] Exhibit 5-3, IRE, at 84.

equipment. Based on past experience, one airline estimates that a display system capable of the functions the IRE describes could cost $8,000-10,000 per unit for parts and labor alone. Again, this is seven to eight times the IRE's estimated cost.

Also, because one display could not reasonably be expected to be useable by all passengers on most airplanes, more than one display would be necessary on each aircraft, depending on the interior configuration of seats and walls.[22] Also, installation would involve structural and electrical modifications (such as wire bundle routing or circuit breaker installation) to the aircraft, which are also subject to FAA approval. These modifications would require the aircraft to be out-of-service, possibly for up to two days, and would cost an airline an additional $20,000-$100,000 per day (depending on the aircraft size and its utilitization). Finally, the IRE estimates labor costs for installation based on eight hours per display unit, but this cost element would be much higher. One airline estimated that labor hours could run as high as 60-80 hours per aircraft, depending on the number of units to be installed.

For our alternate calculation, we replaced the Department's estimated cost for an onboard display system in Exhibit 3-6 of the IRE with $10,000 per display system (which is our high-end estimate of the per-display cost but does not include any of the modification, labor, aircraft out-of-service, or other costs) in order to more accurately assess the impact on the NPRM's overall benefit-cost ratio. *See* ATA Exhibit 3-6a. At $10,000 per display, the cost for the 6,583 aircraft that the IRE projected would require displays totaled $125.02 million (instead of the $25.97 million estimated in the IRE). If we adjust Exhibit 5-3 accordingly, the benefit-cost ratio falls

[22] The NPRM does not discuss, and we are uncertain, of where these displays could be mounted. Moreover, many aircraft with 60 or more seats have more than one class of service, and each class of service would require at least one display.

into negative territory at 0.70.[23] *See* ATA Exhibit 5-3c. Because the adjusted cost in this calculation does not include modification, labor, aircraft-out-of-service, maintenance, and other costs, the actual benefit-cost ratio would be even further negative. Correcting the IRE's cost analysis demonstrates that the NPRM's benefits do not justify its costs and that it imposes an undue burden on airlines.

3. Other Flaws Undermine The IRE's Cost Projections

- The cost estimates for the training requirements in proposed section 382.141 do not include the costs of ongoing training for new employees, which are significant for an industry with high turnover among employees who have contact with passengers. In addition, the IRE does not include other costs related to training such as disruptions to work schedules, employee transportation and lodging costs, and other administrative costs.

- Overall, the IRE fails to properly allocate training costs to benefits. Many of the NPRM's purported benefits are dependent on training employees, yet the IRE does not attribute the cost of that training time to those aspects of the NPRM.

- As noted above, the IRE fails to account for fuel costs associated with any requirements to carry additional or heavier equipment or video programming onboard aircraft.

[23] To consider the effect of uncertainty concerning the actual costs of this element of the NPRM, the series of tables in the Appendix (Exhibits 3-6b, 5-3d, and 5-3f) show the impact of adjusting the projected "Cost of FIDS Display System per Aircraft" to $5,000 instead of $10,00. The total 20-year discounted cost of this requirement increases to $63.26 million from DOT's projected $25.97 million, and the projected benefit-cost ratio for this requirement falls from 0.47 to 0.19. The overall benefit-cost ratio for the NPRM falls from 1.14 to 0.92 when adjusted for this variable, and, when combined with the other adjustments, still results in an overall benefit-cost ratio of only 0.30.

C. The Adjusted Benefit-Cost Ratio Demonstrates That the NPRM Is Not Justified,

In ATA Exhibit 5-3d, we show the cumulative impact of our adjustments on the overall benefit-cost ratio. With the four adjustments described in the preceding sections, the overall benefit-cost ratio falls from the IRE's projection of 1.14 to a mere 0.25. Instead of $1.14 of anticipated benefit for each dollar the airlines would have spent, the adjusted analysis shows that every dollar spent on the proposed accommodations would produce only $0.25 in expected benefits.[24] Especially at a time when airlines continue to struggle to cut costs in the face of rising fuel prices, there are limits on the costs that airlines can bear. Clearly, the expected return on the dollars that the NPRM would require airlines to spend is not reasonable. Without a doubt, these accommodations constitute an undue burden on airlines. The ACAA, therefore, does not require them, and to do so would exceed the Department's authority. .

D. The Department's Benefit-Cost Analysis Has Failed to Consider the Cumulative Effect of Pending Part 382 Proposed Changes

This NPRM is the third proposed amendment to Part 382 since November 2004. The two prior NPRMs have not been finalized. Collectively, the three NPRMS impose requirements that would cost the U.S. airline industry over $1.5 billion.[25] The cumulative effect of the three NPRMs may not be apparent because of the Department's decision to release the NPRMs seriatim rather than as a single rulemaking. While there may be a reason for having broken up this revision of Part 382 into three separate rulemakings, these proposed rules must be considered as a single proposed rule for purposes of compliance with applicable laws and

[24] This analysis ignores completely the NPRM's distributional effects. The proposed requirements would impose substantial costs on airlines, but most of the resultant benefits would accrue elsewhere.

[25] DOT's estimates of the total costs for all three NPRMs, which ATA has vigorously disputed, are about $216.26 million. We refer the Department to our comments in each of the relevant dockets, which demonstrate that the projected costs of these rulemakings easily exceed at least $1.5 billion. The Medical Oxygen NPRM alone seeks to impose $1.03 billion in costs (over the next ten years) on the U.S. airline industry.

executive orders. Taken together, if adopted as proposed, they would have an overwhelmingly adverse economic impact on the airline industry. We recommend, therefore, that the Department consolidate these rules into a single agency action for submission to the Office of Management and Budget for review under E.O. 12866 by the Office of Information and Regulatory Affairs.

IV. THE NPRM IS NOT IN ACCORDANCE WITH LAW, IS ARBITRARY AND CAPRICIOUS AND, THEREFORE, INVALID UNDER THE ADMINISTRATIVE PROCEDURE ACT

Finally, the NPRM does not pass muster under the judicial review provisions of the Administrative Procedure Act. Under the applicable standard for judicial review, a reviewing court must hold unlawful and set aside agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[26] As explained above, the NPRM involves significant costs that impose an undue burden on airlines. ATA projects that the NPRM has an actual benefit-cost ratio at least as low as 0.25.[27] Under the ACAA, DOT may not require accommodations, like these, that impose an undue burden. In addition, because of the fatal flaws in the IRE outlined above, the NPRM does not represent a reasoned determination that the proposal's benefits justify its costs, as required by Executive Order 12,866.[28] For these reasons, the NPRM is arbitrary and capricious and not in accordance with law. Therefore, it is invalid under the Administrative Procedure Act. For these reasons, the Department should withdraw the NPRM in its entirety or revise it so as to eliminate the undue burdens it creates

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[26] 5 U.S.C. § 706(2)(A).

[27] *See* Section III.C.

[28] *See* § 1(b)(6), Regulatory Planning and Review, Executive Order 12,866, 58 Fed. Reg. 51,745 (Oct. 4, 1993).

V. COMMENTS ON INDIVIDUAL SECTIONS OF THE NPRM

A. Terminology Updates

ATA supports the revision of Part 382 to replace the terms "telecommunication device for the deaf" and TDD with "text telephone" and TTY, respectively. As the NPRM noted, the airline industry agreed to this change in the DHHB Workgroup because the new terms are more widely used and recognized than the old terms used in existing Part 382.

B. Proposed Section 382.3 - Definitions

ATA supports the Department's decision not to propose a new definition for "hard of hearing, deaf, and deaf-blind." We agree that the existing definition of an "individual with a disability" and the case law interpreting that term are sufficiently broad, and we see no reason to enumerate the types of hearing or vision disabilities in Part 382.

In the absence of a captioning standard for video displays in the Americans with Disabilities Act Accessibility Guidelines, ATA cautions against adopting a mandatory video captioning standard of "white lettering on a consistent black background" in Part 382. Depending on the circumstances, a different type of captioning may provide better viewing, and Part 382 should remain flexible to permit the use of alternative captioning. If DOT insists that Part 382 should include a captioning standard, we recommend a reasonableness standard that includes consideration of screen size and other relevant visibility factors.

ATA sees no reason to include a definition for "informational" in Part 382. The plain meaning of the term is sufficiently clear.

C. Proposed Section 382.5 - Applicability

ATA has no comment on this proposed section, as it makes no change to Part 382 that affects U.S. airlines.

D. Proposed Section 382.29(c) - Safety Assistants

ATA strongly opposes the proposed requirement that airlines must make reasonable efforts to provide an individual with a disability with a "safety assistant" in the event that an airline determines, contrary to a passenger's self-assessment, that airline personnel and the passenger cannot establish communication that is adequate to permit transmission of the required FAA safety briefing. (We do not object to the replacement of the term "attendant," which appears in existing Part 382, with the term "safety assistant.") Instead, we suggest that the Department revise the regulatory language to permit, but not to require, airlines to make reasonable efforts to provide a safety assistant.

First, because the existing § 382.29(c) prohibits airlines from charging for the transportation of the safety assistant, a few passengers, unfortunately, have made repeated abuses of this provision to obtain free transportation for a traveling companion. We would like to preserve the ability to appropriately handle these situations when they do arise, and the proposed mandatory language would interfere with that flexibility. Second, some airlines (and their insurers) have determined that a mandatory requirement to provide a safety assistant, such as another passenger or an airline employee, could involve safety risks to the passenger with a disability or the safety assistant, or both, that would create a potential liability exposure for personal injuries. As the NPRM recognizes, some airlines already have in place company policies that achieve the objective of this proposed requirement; other airlines object to this proposed requirement. Our recommendation to *permit, but not to require,* airlines to make reasonable efforts to provide a

safety assistant would allow current practices to provide safety assistants to continue and would encourage other airlines, through competitive market forces, to adopt similar policies.

E. Proposed Section 382.43(a)(2) - TTY Reservations Lines

ATA opposes the requirement in proposed § 382.43(a)(2) to ensure that the response time for answering calls and the level of service provided to TTY callers is equivalent to the response time for the non-TTY reservations line. Airlines receive very few TTY calls to their reservations lines. One ATA member estimates that it receives only about 1.5 TTY calls per week. Also, TTY use, in general, is becoming less common as replacement technologies, such as the Internet and voice and video relay services, emerge. For these reasons, the cost for airlines to equip their reservations call centers so that TTY calls can be added to the non-TTY queue and to provide a queue message would impose an unreasonable and undue burden. Moreover, contrary to DOT's anecdotal data, many airlines find that TTY calls are answered more quickly than non-TTY calls.[29] Because specially-trained reservations agents must handle the TTY calls and TTY calls are infrequent, the queue for TTY calls, if any, is often very short even though TTY calls typically take longer than non-TTY calls. Indeed, the proposal may lead to longer wait times for TTY customers. ATA believes this particular issue is best dealt with by ensuring airline policies do not discriminate against TTY calls, and then by addressing any problems on a case-by-case basis. In this instance, technology is not the right accommodation.

[29] One member reports that the wait time for TTY calls is about 12 seconds, which means that almost all TTY calls are answered immediately.

F. Proposed Section 382.45 - Passenger Information about Part 382

ATA has no comment on this proposed requirement and does not object to providing information to passengers about the Department's Disability Hotline and the Aviation Consumer Protection Division.

G. Proposed Section 382.51 - Accessibility of Airport Audio-Video Facilities

As noted in the Executive Summary, ATA supports the proposal to require airlines to enable captioning on all caption-capable displays that airlines own, lease, or control. The captioning on standard television displays will be the standard captions provided by the television broadcasters. With respect to other airport displays, ATA does not object to the standard use of white letters on a consistent black background, but recommends the Department reconsider including this preference in the regulatory language. Instead, if DOT believes a Part 382 captioning standard is necessary, we recommend a reasonableness standard.[30] High-contrast captioning, as defined in proposed § 382.51(a)(5), may not always be the most visible, and another type of captioning could become the industry standard.

ATA does not object to the proposed requirements to replace non-compliant displays with caption-capable audio-video displays in the normal course of operations or whenever such portions of the airport facilities that an airline owns, leases, or controls are substantially renovated or expanded.

H. Proposed Section 382.53 - Airport Accommodations

The comments in section B.1 above set forth our concerns about the potential costs of this proposed requirement. In addition to the potentially large costs, compliance with this proposed

[30] *See* Section V.B.

requirement is infeasible in some cases. For example, an airline's direct interaction with a passenger typically ends after the passenger disembarks from the airplane at his/her destination. Baggage retrieval is a self-serve function and baggage claim areas have limited staffing. In general, baggage claim areas are not set up to provide personal assistance to retrieve baggage; personnel are available only to respond to mishandled baggage situations.

In addition, the technology solutions discussed in the IRE are impracticable. Airlines typically do not have the technical or manpower capability at gate areas (or other areas where announcements originate) to send e-mails to text pagers. Restaurant-style paging systems are not an option because they are not designed for the airport environment (where multiple paging base stations would operate in close proximity and potentially interfere with each other). Such systems would also be difficult to manage and maintain in appropriate quantities at gates. These systems also could interfere with other communications systems in the airport environment that the Department has not considered. Finally, even the least-cost and low-tech solution, whiteboards, would be difficult to implement. For example, gate personnel do not have sufficient time to transcribe all announcements into writing during the typically rushed boarding period. Airlines would have to increase gate personnel to ensure compliance, which would be an unreasonable and undue burden.

Finally, if this provision is finalized in some form, in order to make the requirements in section 382.53(a) feasible, we request that the Department limit the list of covered information in section 382.53(a)(1) that an airline must provide. We recommend that the Department maintain the list that appears in existing section 382.53(a)(1).

I. Proposed Section 382.69 - Onboard Accommodations

1. Safety Videos

ATA does not object to the requirement in proposed section 382.69(a)(1) concerning captioned safety briefings except that the Department should not require captioning that is "high-contrast," as defined in the NPRM. As the NPRM acknowledges, there is no standard yet for "high-contrast captioning," and airlines have elected to caption safety videos in other ways that provide high visibility without obscuring the video display. As discussed earlier in these comments, we recommend a reasonableness standard if DOT insists on including a captioning standard in Part 382.[31] No reason exists to require those safety videos to be re-captioned using white letters on a consistent black background.

2. Informational Briefings

ATA recommends that the Department amend proposed section 382.69(a) to provide an exception to the captioning requirement when captioning would obscure the video display in such a way that makes it difficult to view for the majority of passengers. (We reiterate that the Department should not require "high-contrast captioning" so airlines have the flexibility to provide captioning that is high-visibility but that does not obscure the video display.) Most aircraft video displays are small, which makes reading captions challenging for anyone.[32] If the Department does not make this amendment, this requirement could force airlines to refrain from displaying informational briefings because the video presentation would be useless to a majority of passengers.

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[31] *See* Section V.B.

[32] This problem would be even worse in cases where airlines have made a service decision to provide foreign language subtitles.

Even on flights where passengers view individual informational briefings on seat-back displays, the requirement as drafted could interfere with airline service decisions concerning video content. Today, informational briefings use open captioning technology[33] in which captions cannot be turned off (open captions are always on because they are "burned onto" the video content). Because of the limitations of open captioning, airlines would have to store separate non-captioned and captioned versions of the informational briefings. This would reduce the amount and variety of programming an airline could offer, which is a competitive matter among airlines.

In addition, ATA recommends that the Department adopt the same compliance schedule for captioned informational videos as it did for captioned safety videos, which was substitution of captioned materials for uncaptioned materials as they are replaced in the normal course of an airline's operation.[34]

3. In-Flight Entertainment

This proposed requirement exceeds DOT's authority under the ACAA, which Congress passed to ensure non-discriminatory access to air transportation. In-flight entertainment is unrelated to access to air transportation. A passenger with hearing disabilities is not subjected to unlawful discrimination under the ACAA in the provision of air transportation if in-flight entertainment is not accessible. For this reason, this proposed requirement should be deleted from the NPRM.

If DOT includes this proposed requirement in the final rule, ATA recommends that the Department amend proposed section 382.69(b) to provide an exception when captioning would

[33] Existing equipment for displaying informational and in-flight entertainment content onboard aircraft do not support the display of closed captioning.

[34] *See* Nondiscrimination on the Basis of Handicap in Air Travel, 55 Fed. Reg. 8,008, 8,052 (Mar. 6, 1990) (codified at 14 C.F.R. pt. 382).

obscure the video display in such a way that would render the video content unviewable for a majority of passengers. One member reported that its IFE system is capable of displaying captions either at all the passenger seats or, at best, an entire section of the passenger seats. This means that everyone onboard would have to view the captions, or a passenger with a hearing disability would have to sit in a designated section of seats to view the captions.[35]

ATA appreciates the Department's recognition that captioning of video entertainment content on existing airplanes would impose unreasonable costs on airlines and supports the Department's decision not to require this accommodation for existing aircraft. However, the Department's conclusion applies with equal force to new aircraft because of the limitations in current-generation in-flight entertainment systems being installed on new aircraft. For this reason, if the Department adopts this provision, we suggest that it be revised to read as follows (amended text in underline, deleted text in strike-through):

> **§ 382.69 What requirements must carriers meet concerning the accessibility of videos, DVDs and other audio-visual presentations shown on board aircraft to individuals who are deaf and hard of hearing?**
>
> … (b) As a carrier you must also ensure that all videos, DVDs and other audio-visual displays shown for entertainment purposes on <u>new in-flight entertainment systems</u> are ~~high-contrast~~ captioned ~~(*e.g.* white letters on a consistent black background)~~. For purposes of this subsection, <u>a</u> new <u>in-flight-entertainment system is a system capable of displaying captions that is certified by the FAA and ordered and installed on aircraft</u> after [insert effective date of this rule] ~~or delivered after [insert date two years from the effective date of this rule], or in which the cabin audio-visual elements have been replaced after [insert the effective date of this rule]~~.

For additional information about the technological challenges airlines face concerning accessibility of video entertainment content, ATA directs the Department's attention to the

[35] As the Department is aware, existing Part 382 prohibits airlines from requiring passengers with disabilities to sit in designated seats.

comments of the World Airline Entertainment Association (WAEA), which possesses technical expertise about in-flight entertainment systems. Many ATA members also are members of the WAEA.

J. Proposed Section 382.119 - Accessibility of Information Onboard Aircraft

ATA opposes this provision. Any expectation that airlines would be able to comply with the requirements of proposed section 382.119 by installing new video display systems or making modifications of existing video display systems is misguided. As discussed in section V.B.2 above, the FAA has not certified any equipment or approved any of the display solutions discussed in the IRE. In part for that reason, the IRE's cost estimates for the LCD and plasma display systems are questionable. Also, consumer pricing for these systems is not a good proxy for airline costs. Because of FAA airworthiness requirements, airline costs normally are much higher than the costs presented in the IRE.

ATA also opposes the breadth of the covered information, which creates a tension between crewmembers' obligations to provide information and their safety duties. If busy crewmembers are further burdened with a requirement to promptly transcribe for passengers with hearing disabilities every in-flight informational announcement, crewmembers will naturally tend to limit announcements except for mandatory FAA safety announcements. Proposed section 382.119 thus would operate to the detriment of all passengers and interfere with airline service decisions and airline competition. This would constitute an undue burden, which the ACAA does not require. To avoid misjudgments in this area, ATA recommends that the covered information be limited to critical flight and flight-safety information.

K. Proposed Section 382.141 - Training

ATA does not object to the training requirements in proposed section 382.141 except that we suggest the Department amend the requirement to limit its scope to permit airlines to train some, but not all, employees who deal with the traveling public. For example, it would be reasonable to give specialized training in communicating with passengers with hearing disabilities to complaints resolution officials (CROs), who can resolve all communications problems at airport, and flight attendants (because access to a CRO is not available during flight). This amendment would reduce the cost of training for airlines without reducing the availability of this accommodation for passengers with hearing disabilities.

In addition, we are uncertain what the Department expects with respect to the requirement in proposed section 382.141(a)(3) to "train … employees *to proficiency*" (emphasis added). We recommend that the Department consider further consultations with airlines concerning this aspect of this requirement. We anticipate that these consultations would result in industry-wide understanding and acceptance of this standard, which would lead to better compliance with the requirement.

VI. CONCLUSION

For the reasons discussed in these comments, ATA recommends that the Department withdraw the NPRM. The NPRM imposes an undue burden on airlines, exceeds the Department's authority under the ACAA and violates the APA. The Department should determine whether to revise the NPRM without the offending burdens. Additionally, if a final rule is submitted to

OMB for statutory review, it should be a consolidated rule that incorporates the three pending rules to revise Part 382.

Respectfully Submitted,

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APPENDIX

Exhibit ATA 4-7: Benefits of Increased Passenger Revenue (Replicate of IRE Exhibit 4-7)

Year	Passengers with Hearing Disabilities (millions)	Enplanements Per Passenger	Enplanements by Passenges with Hearing Disabilities (millions)	Accessiblity-Induced Air Travel Growth	Number of Accessiblity-Induced Enplanements (millions)	Average Profit Per Passenger Enplanement	Accessibility-Induced Travel Profit (millions)	Present Value (r=3.15) (millions)
2006	6.30	7	44.10	0.0025	0.110250	41.30	$ 4.55	$ 4.55
2007	6.57	7	45.99	0.0025	0.114975	41.30	$ 4.75	$ 4.60
2008	6.85	7	47.95	0.0025	0.119875	41.30	$ 4.95	$ 4.65
2009	7.15	7	50.05	0.0025	0.125125	41.30	$ 5.17	$ 4.71
2010	7.46	7	52.22	0.0025	0.130550	41.30	$ 5.39	$ 4.76
2011	7.78	7	54.46	0.0025	0.136150	41.30	$ 5.62	$ 4.82
2012	8.11	7	56.77	0.0025	0.141925	41.30	$ 5.86	$ 4.87
2013	8.46	7	59.22	0.0025	0.148050	41.30	$ 6.11	$ 4.92
2014	8.82	7	61.74	0.0025	0.154350	41.30	$ 6.37	$ 4.97
2015	9.20	7	64.40	0.0025	0.161000	41.30	$ 6.65	$ 5.03
2016	9.60	7	67.20	0.0025	0.168000	41.30	$ 6.94	$ 5.09
2017	10.01	7	70.07	0.0025	0.175175	41.30	$ 7.23	$ 5.14
2018	10.44	7	73.08	0.0025	0.182700	41.30	$ 7.55	$ 5.20
2019	10.89	7	76.23	0.0025	0.190575	41.30	$ 7.87	$ 5.26
2020	11.36	7	79.52	0.0025	0.198800	41.30	$ 8.21	$ 5.32
2021	11.85	7	82.95	0.0025	0.207375	41.30	$ 8.56	$ 5.38
2022	12.36	7	86.52	0.0025	0.216300	41.30	$ 8.93	$ 5.44
2023	12.89	7	90.23	0.0025	0.225575	41.30	$ 9.32	$ 5.50
2024	13.44	7	94.08	0.0025	0.235200	41.30	$ 9.71	$ 5.56
2025	14.02	7	98.14	0.0025	0.245350	41.30	$ 10.13	$ 5.62
Total								**$ 101.39**

Exhibit ATA 4-7a: Benefits of Increased Passenger Revenue (Enplanements Adjustment)

Year	Passengers with Hearing Disabilities (millions)	Enplanements Per Passenger	Enplanements by Passenges with Hearing Disabilities (millions)	Accessiblity-Induced Air Travel Growth	Number of Accessiblity-Induced Enplanements (millions)	Average Profit Per Passenger Enplanement	Accessibility-Induced Travel Profit (millions)	Present Value (r=3.15) (millions)
2006	6.30	2.8	17.64	0.0025	0.044100	41.30	$ 1.82	$ 1.82
2007	6.57	2.8	18.40	0.0025	0.045990	41.30	$ 1.90	$ 1.44
2008	6.85	2.8	19.18	0.0025	0.047950	41.30	$ 1.98	$ 1.51
2009	7.15	2.8	20.02	0.0025	0.050050	41.30	$ 2.07	$ 1.57
2010	7.46	2.8	20.89	0.0025	0.052220	41.30	$ 2.16	$ 1.64
2011	7.78	2.8	21.78	0.0025	0.054460	41.30	$ 2.25	$ 1.71
2012	8.11	2.8	22.71	0.0025	0.056770	41.30	$ 2.34	$ 1.78
2013	8.46	2.8	23.69	0.0025	0.059220	41.30	$ 2.45	$ 1.86
2014	8.82	2.8	24.70	0.0025	0.061740	41.30	$ 2.55	$ 1.94
2015	9.20	2.8	25.76	0.0025	0.064400	41.30	$ 2.66	$ 2.02
2016	9.60	2.8	26.88	0.0025	0.067200	41.30	$ 2.78	$ 2.11
2017	10.01	2.8	28.03	0.0025	0.070070	41.30	$ 2.89	$ 2.20
2018	10.44	2.8	29.23	0.0025	0.073080	41.30	$ 3.02	$ 2.30
2019	10.89	2.8	30.49	0.0025	0.076230	41.30	$ 3.15	$ 2.39
2020	11.36	2.8	31.81	0.0025	0.079520	41.30	$ 3.28	$ 2.50
2021	11.85	2.8	33.18	0.0025	0.082950	41.30	$ 3.43	$ 2.61
2022	12.36	2.8	34.61	0.0025	0.086520	41.30	$ 3.57	$ 2.72
2023	12.89	2.8	36.09	0.0025	0.090230	41.30	$ 3.73	$ 2.83
2024	13.44	2.8	37.63	0.0025	0.094080	41.30	$ 3.89	$ 2.95
2025	14.02	2.8	39.26	0.0025	0.098140	41.30	$ 4.05	$ 3.08
Total								**$ 42.99**

Exhibit ATA 4-7b: Benefits of Increased Passenger Revenue (Profits Adjustment)

Year	Passengers with Hearing Disabilities (millions)	Enplanements Per Passenger	Enplanements by Passenges with Hearing Disabilities (millions)	Accessiblity-Induced Air Travel Growth	Number of Accessiblity-Induced Enplanements (millions)	Average Profit Per Passenger Enplanement	Accessibility-Induced Travel Profit (millions)	Present Value (r=3.15) (millions)
2006	6.30	7	44.10	0.0025	0.110250	8.31	$ 0.92	$ 0.92
2007	6.57	7	45.99	0.0025	0.114975	8.31	$ 0.96	$ 0.93
2008	6.85	7	47.95	0.0025	0.119875	8.31	$ 1.00	$ 0.94
2009	7.15	7	50.05	0.0025	0.125125	8.31	$ 1.04	$ 0.95
2010	7.46	7	52.22	0.0025	0.130550	8.31	$ 1.08	$ 0.96
2011	7.78	7	54.46	0.0025	0.136150	8.31	$ 1.13	$ 0.97
2012	8.11	7	56.77	0.0025	0.141925	8.31	$ 1.18	$ 0.98
2013	8.46	7	59.22	0.0025	0.148050	8.31	$ 1.23	$ 0.99
2014	8.82	7	61.74	0.0025	0.154350	8.31	$ 1.28	$ 1.00
2015	9.20	7	64.40	0.0025	0.161000	8.31	$ 1.34	$ 1.01
2016	9.60	7	67.20	0.0025	0.168000	8.31	$ 1.40	$ 1.02
2017	10.01	7	70.07	0.0025	0.175175	8.31	$ 1.46	$ 1.03
2018	10.44	7	73.08	0.0025	0.182700	8.31	$ 1.52	$ 1.05
2019	10.89	7	76.23	0.0025	0.190575	8.31	$ 1.58	$ 1.06
2020	11.36	7	79.52	0.0025	0.198800	8.31	$ 1.65	$ 1.07
2021	11.85	7	82.95	0.0025	0.207375	8.31	$ 1.72	$ 1.08
2022	12.36	7	86.52	0.0025	0.216300	8.31	$ 1.80	$ 1.09
2023	12.89	7	90.23	0.0025	0.225575	8.31	$ 1.87	$ 1.11
2024	13.44	7	94.08	0.0025	0.235200	8.31	$ 1.95	$ 1.12
2025	14.02	7	98.14	0.0025	0.245350	8.31	$ 2.04	$ 1.13
Total								**$ 20.40**

Exhibit ATA 3-4: Cost of Accessible Visual Public Announcements in Terminals (Replicate)

Year	Number of Gates at Hub Airports	Number of Gates at Hub Airports Requireing New FIDS Systems	Cost of FIDS Display System per Gate	Total Cost of FIDS Systems at Gates (Millions)	Number of Gates at Non-Hub Airports	Cost of White Board System per Gate	Total Cost of White Board Systems at Gates (Millions)	Total Cost of PA Visual Systems at Gates	Present Value (r=3.15) (millions)
2006	5,346	5346	$2,252	$12.04	784	$69	$ 0.05	$ 12.09	$ 12.09
2007	5,461	115	$2,252	$0.26	801	$119	$ 0.10	$ 0.35	$ 0.34
2008	5,578	117	$2,252	$0.26	818	$119	$ 0.10	$ 0.36	$ 0.34
2009	5,698	120	$2,252	$0.27	836	$119	$ 0.10	$ 0.37	$ 0.34
2010	5,821	123	$2,252	$0.28	854	$119	$ 0.10	$ 0.38	$ 0.33
2011	5,946	125	$2,252	$0.28	872	$119	$ 0.10	$ 0.39	$ 0.33
2012	6,074	128	$2,252	$0.29	891	$119	$ 0.11	$ 0.39	$ 0.33
2013	6,204	131	$2,252	$0.30	910	$119	$ 0.11	$ 0.40	$ 0.32
2014	6,338	133	$2,252	$0.30	929	$119	$ 0.11	$ 0.41	$ 0.32
2015	6,474	136	$2,252	$0.31	949	$119	$ 0.11	$ 0.42	$ 0.32
2016	6,613	139	$2,252	$0.31	970	$119	$ 0.12	$ 0.43	$ 0.31
2017	6,755	142	$2,252	$0.32	991	$119	$ 0.12	$ 0.44	$ 0.31
2018	6,901	145	$2,252	$0.33	1,012	$119	$ 0.12	$ 0.45	$ 0.31
2019	7,049	148	$2,252	$0.33	1,034	$119	$ 0.12	$ 0.46	$ 0.30
2020	7,201	152	$2,252	$0.34	1,056	$119	$ 0.13	$ 0.47	$ 0.30
2021	7,355	155	$2,252	$0.35	1,079	$119	$ 0.13	$ 0.48	$ 0.30
2022	7,514	158	$2,252	$0.36	1,102	$119	$ 0.13	$ 0.49	$ 0.30
2023	7,675	162	$2,252	$0.36	1,126	$119	$ 0.13	$ 0.50	$ 0.29
2024	7,840	165	$2,252	$0.37	1,150	$119	$ 0.14	$ 0.51	$ 0.29
2025	8,009	169	$2,252	$0.38	1,174	$119	$ 0.14	$ 0.52	$ 0.29
Total									**$ 18.08**

Exhibit ATA 3-4a: Cost of Accessible Visual Public Announcements in Terminals (FIDS Adjustment)

Year	Number of Gates at Hub Airports	Number of Gates at Hub Airports Requireing New FIDS Systems	Cost of FIDS Display System per Gate	Total Cost of FIDS Systems at Gates (Millions)	Number of Gates at Non-Hub Airports	Cost of White Board System per Gate	Total Cost of White Board Systems at Gates (Millions)	Total Cost of PA Visual Systems at Gates	Present Value (r=3.15) (millions)
2006	5,346	5346	$15,000	$80.19	784	$69	$ 0.05	$ 80.24	$ 80.24
2007	5,461	115	$15,000	$1.73	801	$119	$ 0.10	$ 1.82	$ 1.76
2008	5,578	117	$15,000	$1.76	818	$119	$ 0.10	$ 1.85	$ 1.74
2009	5,698	120	$15,000	$1.80	836	$119	$ 0.10	$ 1.90	$ 1.73
2010	5,821	123	$15,000	$1.85	854	$119	$ 0.10	$ 1.95	$ 1.72
2011	5,946	125	$15,000	$1.88	872	$119	$ 0.10	$ 1.98	$ 1.69
2012	6,074	128	$15,000	$1.92	891	$119	$ 0.11	$ 2.03	$ 1.68
2013	6,204	131	$15,000	$1.97	910	$119	$ 0.11	$ 2.07	$ 1.67
2014	6,338	133	$15,000	$2.00	929	$119	$ 0.11	$ 2.11	$ 1.64
2015	6,474	136	$15,000	$2.04	949	$119	$ 0.11	$ 2.15	$ 1.63
2016	6,613	139	$15,000	$2.09	970	$119	$ 0.12	$ 2.20	$ 1.61
2017	6,755	142	$15,000	$2.13	991	$119	$ 0.12	$ 2.25	$ 1.60
2018	6,901	145	$15,000	$2.18	1,012	$119	$ 0.12	$ 2.30	$ 1.58
2019	7,049	148	$15,000	$2.22	1,034	$119	$ 0.12	$ 2.34	$ 1.57
2020	7,201	152	$15,000	$2.28	1,056	$119	$ 0.13	$ 2.41	$ 1.56
2021	7,355	155	$15,000	$2.33	1,079	$119	$ 0.13	$ 2.45	$ 1.54
2022	7,514	158	$15,000	$2.37	1,102	$119	$ 0.13	$ 2.50	$ 1.52
2023	7,675	162	$15,000	$2.43	1,126	$119	$ 0.13	$ 2.56	$ 1.51
2024	7,840	165	$15,000	$2.48	1,150	$119	$ 0.14	$ 2.61	$ 1.49
2025	8,009	169	$15,000	$2.54	1,174	$119	$ 0.14	$ 2.67	$ 1.48
Total									**$ 110.99**

Exhibit ATA 3-6: Costs of Accessible Public Announcements on Aircraft (Replicate of IRE Exhibit 3-6)

Year	Number of Aircraft with 60 or more Seats	Number of Aircraft Requiring New FIDS Systems	Cost of FIDS Display System per Aircraft	Total Cost of FIDS Systems on Aircraft (Millions)	Number of Aircraft with Less than 60 Seats	Number of Aircraft Requiring New FIDS Systems	Cost of White Board Systems per Aircraft	Total Cost of White Board Systems per Aircraft (Millions)	Total Cost of PA Visual Systems at Gates (Millions)	Present Value (r=3.15) (Millions)
2006	6,583	6,583	$1,981	$13.04	11,569	11,569	$ 69	$ 0.80	$ 13.84	$ 13.84
2007	6,866	283	$1,981	$0.56	12,066	497	$ 69	$ 0.03	$ 0.59	$ 0.58
2008	7,161	295	$1,981	$0.58	12,585	519	$ 69	$ 0.04	$ 0.62	$ 0.58
2009	7,469	308	$1,981	$0.61	13,126	541	$ 69	$ 0.04	$ 0.65	$ 0.59
2010	7,790	321	$1,981	$0.64	13,691	564	$ 69	$ 0.04	$ 0.67	$ 0.60
2011	8,125	335	$1,981	$0.66	14,280	589	$ 69	$ 0.04	$ 0.70	$ 0.60
2012	8,475	349	$1,981	$0.69	14,894	614	$ 69	$ 0.04	$ 0.73	$ 0.61
2013	8,839	364	$1,981	$0.72	15,534	640	$ 69	$ 0.04	$ 0.77	$ 0.62
2014	9,219	380	$1,981	$0.75	16,202	668	$ 69	$ 0.05	$ 0.80	$ 0.62
2015	9,616	396	$1,981	$0.78	16,899	697	$ 69	$ 0.05	$ 0.83	$ 0.63
2016	10,029	413	$1,981	$0.82	17,625	727	$ 69	$ 0.05	$ 0.87	$ 0.64
2017	10,460	431	$1,981	$0.85	18,383	758	$ 69	$ 0.05	$ 0.91	$ 0.64
2018	10,910	450	$1,981	$0.89	19,174	790	$ 69	$ 0.05	$ 0.95	$ 0.65
2019	11,379	469	$1,981	$0.93	19,998	824	$ 69	$ 0.06	$ 0.99	$ 0.66
2020	11,869	489	$1,981	$0.97	20,858	860	$ 69	$ 0.06	$ 1.03	$ 0.67
2021	12,379	510	$1,981	$1.01	21,755	897	$ 69	$ 0.06	$ 1.07	$ 0.67
2022	12,911	532	$1,981	$1.05	22,691	935	$ 69	$ 0.06	$ 1.12	$ 0.68
2023	13,467	555	$1,981	$1.10	23,666	976	$ 69	$ 0.07	$ 1.17	$ 0.69
2024	14,046	579	$1,981	$1.15	24,684	1,018	$ 69	$ 0.07	$ 1.22	$ 0.70
2025	14,650	604	$1,981	$1.20	25,745	1,061	$ 69	$ 0.07	$ 1.27	$ 0.70
Total										**$ 25.97**

Exhibit ATA 3-6a: Costs of Accessible Public Announcements on Aircraft (FIDS Cost Adjustment)

Year	Number of Aircraft with 60 or more Seats	Number of Aircraft Requiring New FIDS Systems	Cost of FIDS Display System per Aircraft	Total Cost of FIDS Systems on Aircraft (Millions)	Number of Aircraft with Less than 60 Seats	Number of Aircraft Requiring New FIDS Systems	Cost of White Board Systems per Aircraft	Total Cost of White Board Systems per Aircraft (Millions)	Total Cost of PA Visual Systems at Gates (Millions)	Present Value (r=3.15) (Millions)
2006	6,583	6,583	$10,000	$65.83	11,569	11,569	$ 69	$ 0.80	$ 66.63	$ 66.63
2007	6,866	283	$10,000	$2.83	12,066	497	$ 69	$ 0.03	$ 2.86	$ 2.78
2008	7,161	295	$10,000	$2.95	12,585	519	$ 69	$ 0.04	$ 2.99	$ 2.81
2009	7,469	308	$10,000	$3.08	13,126	541	$ 69	$ 0.04	$ 3.12	$ 2.84
2010	7,790	321	$10,000	$3.21	13,691	564	$ 69	$ 0.04	$ 3.25	$ 2.87
2011	8,125	335	$10,000	$3.35	14,280	589	$ 69	$ 0.04	$ 3.39	$ 2.90
2012	8,475	349	$10,000	$3.49	14,894	614	$ 69	$ 0.04	$ 3.53	$ 2.93
2013	8,839	364	$10,000	$3.64	15,534	640	$ 69	$ 0.04	$ 3.68	$ 2.97
2014	9,219	380	$10,000	$3.80	16,202	668	$ 69	$ 0.05	$ 3.85	$ 3.00
2015	9,616	396	$10,000	$3.96	16,899	697	$ 69	$ 0.05	$ 4.01	$ 3.03
2016	10,029	413	$10,000	$4.13	17,625	727	$ 69	$ 0.05	$ 4.18	$ 3.07
2017	10,460	431	$10,000	$4.31	18,383	758	$ 69	$ 0.05	$ 4.36	$ 3.10
2018	10,910	450	$10,000	$4.50	19,174	790	$ 69	$ 0.05	$ 4.55	$ 3.14
2019	11,379	469	$10,000	$4.69	19,998	824	$ 69	$ 0.06	$ 4.75	$ 3.17
2020	11,869	489	$10,000	$4.89	20,858	860	$ 69	$ 0.06	$ 4.95	$ 3.21
2021	12,379	510	$10,000	$5.10	21,755	897	$ 69	$ 0.06	$ 5.16	$ 3.24
2022	12,911	532	$10,000	$5.32	22,691	935	$ 69	$ 0.06	$ 5.38	$ 3.28
2023	13,467	555	$10,000	$5.55	23,666	976	$ 69	$ 0.07	$ 5.62	$ 3.32
2024	14,046	579	$10,000	$5.79	24,684	1,018	$ 69	$ 0.07	$ 5.86	$ 3.35
2025	14,650	604	$10,000	$6.04	25,745	1,061	$ 69	$ 0.07	$ 6.11	$ 3.39
Total										**$ 125.02**

Exhibit ATA 3-6b: Costs of Accessible Public Announcements on Aircraft (FIDS Cost Adjustment)

Year	Number of Aircraft with 60 or more Seats	Number of Aircraft Requiring New FIDS Systems	Cost of FIDS Display System per Aircraft	Total Cost of FIDS Systems on Aircraft (Millions)	Number of Aircraft with Less than 60 Seats	Number of Aircraft Requiring New FIDS Systems	Cost of White Board Systems per Aircraft	Total Cost of White Board Systems per Aircraft (Millions)	Total Cost of PA Visual Systems at Gates (Millions)	Present Value (r=3.15) (Millions)
2006	6,583	6,583	$5,000	$32.92	11,569	11,569	$ 69	$ 0.80	$ 33.71	$ 33.71
2007	6,866	283	$5,000	$1.42	12,066	497	$ 69	$ 0.03	$ 1.45	$ 1.41
2008	7,161	295	$5,000	$1.48	12,585	519	$ 69	$ 0.04	$ 1.51	$ 1.42
2009	7,469	308	$5,000	$1.54	13,126	541	$ 69	$ 0.04	$ 1.58	$ 1.44
2010	7,790	321	$5,000	$1.61	13,691	564	$ 69	$ 0.04	$ 1.64	$ 1.45
2011	8,125	335	$5,000	$1.68	14,280	589	$ 69	$ 0.04	$ 1.72	$ 1.47
2012	8,475	349	$5,000	$1.75	14,894	614	$ 69	$ 0.04	$ 1.79	$ 1.48
2013	8,839	364	$5,000	$1.82	15,534	640	$ 69	$ 0.04	$ 1.86	$ 1.50
2014	9,219	380	$5,000	$1.90	16,202	668	$ 69	$ 0.05	$ 1.95	$ 1.52
2015	9,616	396	$5,000	$1.98	16,899	697	$ 69	$ 0.05	$ 2.03	$ 1.53
2016	10,029	413	$5,000	$2.07	17,625	727	$ 69	$ 0.05	$ 2.12	$ 1.55
2017	10,460	431	$5,000	$2.16	18,383	758	$ 69	$ 0.05	$ 2.21	$ 1.57
2018	10,910	450	$5,000	$2.25	19,174	790	$ 69	$ 0.05	$ 2.30	$ 1.59
2019	11,379	469	$5,000	$2.35	19,998	824	$ 69	$ 0.06	$ 2.40	$ 1.60
2020	11,869	489	$5,000	$2.45	20,858	860	$ 69	$ 0.06	$ 2.50	$ 1.62
2021	12,379	510	$5,000	$2.55	21,755	897	$ 69	$ 0.06	$ 2.61	$ 1.64
2022	12,911	532	$5,000	$2.66	22,691	935	$ 69	$ 0.06	$ 2.72	$ 1.66
2023	13,467	555	$5,000	$2.78	23,666	976	$ 69	$ 0.07	$ 2.84	$ 1.68
2024	14,046	579	$5,000	$2.90	24,684	1,018	$ 69	$ 0.07	$ 2.97	$ 1.70
2025	14,650	604	$5,000	$3.02	25,745	1,061	$ 69	$ 0.07	$ 3.09	$ 1.72
Total										**$ 63.26**

Exhibit ATA 5-3: Summary of Benefits, Costs and Benefit-Cost Ratios for The Selected Requirements (Replicate of IRE Exhibit 5-3)

	Benefits (Millions)	Cost (Millions)	Benefit-Cost Ratio
PA in Terminals	24.55	18.08	1.36
Captioning in Terminals	19.64	0.29	67.72
PA in Aircraft	12.27	25.97	0.47
TTY on Planes			0.00
TTY Reservation	6.37	3.27	1.95
Captioning on Existing Aircraft			0.00
Captioning on New/Refurbished Aircraft	15.52	4.65	3.34
Travel/Training	101.39	105.18	0.96
Total	**179.74**	**157.44**	**1.14**

Exhibit ATA 5-3a: Summary of Benefits, Costs and Benefit-Cost Ratios for The Selected Requirements (Enplanements and Profits Adjustment)

	Benefits (Millions)	Cost (Millions)	Benefit-Cost Ratio
PA in Terminals	24.55	18.08	1.36
Captioning in Terminals	19.64	0.29	67.72
PA in Aircraft	12.27	25.97	0.47
TTY on Planes			0.00
TTY Reservation	6.37	3.27	1.95
Captioning on Existing Aircraft			0.00
Captioning on New/Refurbished Aircraft	15.52	4.65	3.34
Travel/Training	8.16	105.18	0.08
Total	**86.51**	**157.44**	**0.55**

Exhibit ATA 5-3b: Summary of Benefits, Costs and Benefit-Cost Ratios for The Selected Requirements (PA in Terminal Adjustment)

	Benefits (Millions)	Cost (Millions)	Benefit-Cost Ratio
PA in Terminals	24.55	110.99	0.22
Captioning in Terminals	19.64	0.29	67.72
PA in Aircraft	12.27	25.97	0.47
TTY on Planes			0.00
TTY Reservation	6.37	3.27	1.95
Captioning on Existing Aircraft			0.00
Captioning on New/Refurbished Aircraft	15.52	4.65	3.34
Travel/Training	101.39	105.18	0.96
Total	**179.74**	**250.35**	**0.72**

Exhibit ATA 5-3c: Summary of Benefits, Costs and Benefit-Cost Ratios for The Selected Requirements (PA in Aircraft Adjustment)

	Benefits (Millions)	Cost (Millions)	Benefit-Cost Ratio
PA in Terminals	24.55	18.08	1.36
Captioning in Terminals	19.64	0.29	67.72
PA in Aircraft	12.27	125.02	0.10
TTY on Planes			0.00
TTY Reservation	6.37	3.27	1.95
Captioning on Existing Aircraft			0.00
Captioning on New/Refurbished Aircraft	15.52	4.65	3.34
Travel/Training	101.39	105.18	0.96
Total	**179.74**	**256.49**	**0.70**

Exhibit ATA 5-3d: Summary of Benefits, Costs and Benefit-Cost Ratios for The Selected Requirements (PA in Aircraft Adjustment)

	Benefits (Millions)	Cost (Millions)	Benefit-Cost Ratio
PA in Terminals	24.55	18.08	1.36
Captioning in Terminals	19.64	0.29	67.72
PA in Aircraft	12.27	63.26	0.19
TTY on Planes			0.00
TTY Reservation	6.37	3.27	1.95
Captioning on Existing Aircraft			0.00
Captioning on New/Refurbished Aircraft	15.52	4.65	3.34
Travel/Training	101.39	105.18	0.96
Total	**179.74**	**194.73**	**0.92**

Exhibit ATA 5-3e: Summary of Benefits, Costs and Benefit-Cost Ratios for The Selected Requirements (Summary Adjustment)

	Benefits (Millions)	Cost (Millions)	Benefit-Cost Ratio
PA in Terminals	24.55	110.99	0.22
Captioning in Terminals	19.64	0.29	67.72
PA in Aircraft	12.27	125.02	0.10
TTY on Planes			0.00
TTY Reservation	6.37	3.27	1.95
Captioning on Existing Aircraft			0.00
Captioning on New/Refurbished Aircraft	15.52	4.65	3.34
Travel/Training	8.16	105.18	0.08
Total	**86.51**	**349.4**	**0.25**

Exhibit ATA 5-3f: Summary of Benefits, Costs and Benefit-Cost Ratios for The Selected Requirements (Summary Adjustment)

	Benefits (Millions)	Cost (Millions)	Benefit-Cost Ratio
PA in Terminals	24.55	110.99	0.22
Captioning in Terminals	19.64	0.29	67.72
PA in Aircraft	12.27	63.26	0.19
TTY on Planes			0.00
TTY Reservation	6.37	3.27	1.95
Captioning on Existing Aircraft			0.00
Captioning on New/Refurbished Aircraft	15.52	4.65	3.34
Travel/Traning	8.16	105.18	0.08
Total	**86.51**	**287.64**	**0.30**