ORAL ARGUMENT NOT YET SCHEDULED

Nos. 11-1483, 15-1027 (consolidated)

United States Court of Appeals for the District of Columbia Circuit

INDEPENDENT PILOTS ASSOCIATION,
Petitioner,

v.

FEDERAL AVIATION ADMINISTRATION,
Respondent,

CARGO AIRLINE ASSOCIATION,
Intervenor.

Review of FAA Rule, Flightcrew Member Duty and Rest Requirements, Docket No. FAA-2009-1093; Amdt. Nos. 117-1, 119-16, 121-357 (Dec. 21, 2011).

FINAL BRIEF FOR INTERVENOR CARGO AIRLINE ASSOCIATION

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Initial Brief: August 28, 2015
Final Brief: November 20, 2015

CORPORATE DISCLOSURE STATEMENT

The Cargo Airline Association ("CAA") is an Internal Revenue Code Section 501(c)(6), not-for-profit trade association of all-cargo air carriers and those in the air cargo marketplace that depend on cargo services. CAA is organized under the laws of the District of Columbia. CAA's members are: ABX Air, Inc., Atlas Air, Inc., FedEx Express, United Parcel Service, DHL Express, Kalitta Air, Alaska International Airport System, Ft. Wayne-Allen County Airport Authority, Louisville International Airport, Memphis-Shelby County Airport Authority, and Campbell-Hill Aviation Group. CAA operates for the purpose of promoting the general commercial, professional, legislative and other common interests of its members. CAA does not have any outstanding shares or debt securities in the hands of the public, nor does it have a parent company. No publicly held company has a 10% or greater ownership interest in CAA.

CERTIFICATE OF PARTIES, RULINGS, AND RELATED CASES

(A) ***Parties and Amici.*** All parties, intervenors, and amici appearing in this Court are listed in the petitioner's opening brief.

(B) ***Rulings Under Review.*** References to the rulings at issue appear in the petitioner's opening brief.

(C) ***Related Cases.*** This case was not previously before this Court or any other court, nor are counsel aware of any other related cases within the meaning of this Court's Rule 28(a)(1)(C).

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GLOSSARY
(Circuit Rule 28(a)(3))

The following acronyms and abbreviations are used in this brief:

ARC	Flight and Duty Time Limitations and Rest Requirements Aviation Rulemaking Committee
ATA	Air Transport Association
CAA	Intervenor Cargo Airline Association
FAA	Federal Aviation Administration
FAA Br.	Brief of Respondent (Initial Brief filed July 24, 2015)
IPA	Petitioner Independent Pilots Association
NACA	National Air Carrier Association
NPRM	Notice of Proposed Rulemaking
P.Br.	Brief of Petitioner Independent Pilots Association (Initial Brief filed May 1, 2015)
RIA	Regulatory Impact Analysis
2010 Act	Airline Safety and Federal Aviation Extension Act of 2010, Pub. L. No. 111-216, 124 Stat. 2348

Note: All emphasis is added unless otherwise indicated.

INTRODUCTION

The questions presented here are (1) whether the FAA was entitled to consider costs in assessing whether, or to what extent, to adopt revised scheduling rules that bear a complex, indirect relationship to "problems relating to pilot fatigue," and (2) if so, whether FAA did so appropriately. The answer to both is plainly yes. On the law, if the FAA had failed to consider costs, that would have been an unreasonable interpretation of its statutory authority. *Accord Michigan v. EPA*, 135 S. Ct. 2699 (2015). On the facts, the FAA examined the voluminous record *four separate times*, and each time reached the only reasonable conclusion: scheduling rules for cargo airlines did not need to be the same as for passenger airlines. The record demonstrates that if the FAA had attempted to impose the set of regulations, drafted with passenger airline operations in mind (94% of operations subject to part 121 of 14 C.F.R.) on the discrete all-cargo industry segment (6%), *that* would have been arbitrary and capricious.

Cargo airlines operate differently from passenger airlines in important ways that necessarily affect "pilot fatigue" differently—including different scheduling and route structures that may contribute

to fatigue, and different rest opportunities to mitigate fatigue. The record showed—in detail and with expert evidence—that the FAA's revised rules would impose far greater costs on the cargo airline industry and confer far fewer benefits, in light of their poor fit with the unique operations of cargo airlines. Further, the cargo airline industry has a strong safety record, with no fatigue-related crashes in the past decade, and no fatal fatigue-related crashes in the past three decades.

In the face of overwhelming evidence comes the Independent Pilots Association ("IPA"), the union for UPS's pilots. P.Br. ii. IPA candidly acknowledges that one of its interests here is to change the "balance of power in IPA's collective bargaining with UPS." *Id.* at 18-19. Tellingly, no other union, airline, airport, public interest organization, state, city, or even any broad-based pilots organization has appeared as a party or amicus to dispute the FAA's conclusions. There is only IPA, and its arguments cannot withstand scrutiny. The FAA's brief ably defends the rules on the merits. Cargo Airline Association ("CAA") provides additional context and reasons why IPA's petition should be denied.

STATUTES AND REGULATIONS

Pertinent statutes and regulations are in addenda accompanying petitioner's and respondent's briefs.

STATEMENT OF THE CASE

The FAA's brief explains the procedural history and rules under review. FAA Br. 3-11. This brief supplies additional relevant context.

A. Differences Between All-Cargo and Passenger Carriers

The Airline Safety and Federal Aviation Extension Act of 2010, Pub. L. No. 111-216, 124 Stat. 2348 ("2010 Act"), at issue here, directs the FAA to promulgate regulations "to specify limitations on the hours of flight and duty time allowed for pilots to address problems relating to pilot fatigue," § 212(a)(1)—and to consider twelve matters in doing so, along with "[a]ny other matters the Administrator considers appropriate." *Id.* § 212(a)(2)(A)-(M). Section 212(a)(2)'s enumerated matters include flight times and scheduling, employers' measures to reduce fatigue, and rest environments (§§ 212(a)(2)(A), (B), (D), (E), (H), (L))—which differ significantly between cargo and passenger operations. *See* Final Rule, 77 Fed. Reg. 330, 335-36, 374-76 (Jan. 4, 2012) [JA7-8, JA46-48].

Beginning with the obvious: Cargo planes carry cargo, and passenger planes carry passengers. A fully-loaded Airbus A300 passenger plane carries a crew of up to nine, and 315 passengers, while a fully-loaded A300 freighter carries a crew of two pilots and about 12,000 packages, presenting different risks and challenges.[1] The different logistics, economics, and legal implications of transporting people versus cargo have led cargo operations to develop different scheduling operations, networks, business models, and measures to alleviate fatigue.

Cargo and passenger flights are scheduled differently. The cause-and-effect relationship is reversed.[2] A passenger may make travel plans in advance from a menu of available seats on prescheduled flights. All-cargo schedules, however, are driven by customer demand. A UPS or FedEx customer may arrange to ship a package on a moment's notice, for guaranteed, time-definite next-day delivery through the carrier's network. UPS processes approximately 900,000

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[1] UPS Comments 19 [JA1921] (FAA-2009-1093-1898); CAA Comments 40 [JA1102] (FAA-2009-1093-2221).

[2] CAA Proposal 7 [JA235] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); CAA Comments 8 [JA1070] (FAA-2009-1093-2221).

next-day air packages *every day* through its main facility.[3] Other cargo carriers provide "unscheduled" services around the world, where flights can be arranged on short notice in response to client needs.[4]

Cargo and passenger flights are treated differently under domestic and foreign law. In many markets, U.S.-based cargo airlines have "seventh freedom" rights to operate flights that begin and end entirely outside the United States.[5] U.S-based passenger airlines, however, have only "fifth-freedom" rights to operate flights to or from the United States.[6] Accordingly, cargo carriers can operate hubs abroad, need not base pilots abroad, and can meet demands in remote parts of the world.[7] More so than passenger operations, cargo flights travel to hostile locations, such as military bases in Iraq and Afghanistan, or humanitarian aid sites in North Korea and Haiti.[8]

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[3] UPS Comments 106 [JA2008] (FAA-2009-1093-1898).
[4] NACA Comments 2-7 [JA1704-09] (FAA-2009-1093-2173); Southern Air, Inc. Comments 5-6 [JA1848-49] (FAA-2009-1093-1585).
[5] UPS Comments 45 [JA1947] (FAA-2009-1093-1898); ATA Comments 18 [JA815] (FAA-2009-1093-2333).
[6] UPS Comments 45 [JA1947] (FAA-2009-1093-1898); ATA Comments 18 [JA815] (FAA-2009-1093-2333).
[7] UPS Comments 7 [JA1909] (FAA-2009-1093-1898); Southern Air, Inc. Comments 6-8 [JA1849-51] (FAA-2009-1093-1585).
[8] CAA Proposal 19 [JA247] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); CAA Comments 7 [JA1069] (FAA-2009-1093-

As a result of different legal frameworks and scheduling demands, passenger and cargo operations fly different hours and structure their networks differently. Passenger operations typically go back and forth several times each day between pairs of cities, during daytime.[9] Cargo flights typically fly once per day between cities, often at night, and point-to-point across a network (including internationally due to "seventh freedom" rights).[10]

The consequences of cancelled or disrupted flights are greater for cargo. When a 300-passenger flight is delayed or cancelled, passengers can be rebooked on later flights, possibly with other airlines, and usually without refunds.[11] Cargo cannot be "rebooked" on another same-day flight, often because no such flight exists.[12] A delayed shipment of 10,000 guaranteed-overnight-delivery packages can mean that the carrier owes 10,000 refunds.[13] Delayed perishable cargo must

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2221); Southern Air, Inc. Comments 6-8 [JA1849-51] (FAA-2009-1093-1585); Kalitta Air Comments 5-7 [JA1502-04] (FAA-2009-1093-2287).

[9] UPS Comments 112 [JA2014] (FAA-2009-1093-1898).

[10] *Id.* at 112-13 [JA2014-15]; Final Rule, 77 Fed. Reg. at 336, 374-76 [JA8, JA46-48].

[11] UPS Comments 20-23 [JA1922-25] (FAA-2009-1093-1898).

[12] *Id.* at 112-13 [JA2014-15].

[13] *Id.* at 20-23 [JA1922-25].

often be destroyed.[14] Delayed transplant organs and pharmaceuticals can mean the difference between life and death.[15] Delayed flights to and from combat zones have safety implications for all involved.[16]

The foregoing differences between passenger and cargo operations mean that the experience of being a pilot or flightcrew member is different, and different tools exist to provide rest opportunities and mitigate fatigue. Because cargo flights are mostly at night, experienced pilots and crews are better able to adapt and acclimate than a passenger pilot who normally flies during the day and is then scheduled on a redeye flight, and would be affected differently by regulations restricting night flying.[17] It may be sensible to restrict night flying for passenger operations because *intermittent* nighttime operations may

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[14] *Id.* at 5, 18 [JA1907, JA1920]; ATA Comments 11 [JA808] (FAA-2009-1093-2333); Southern Air, Inc. Comments 6 [JA1849] (FAA-2009-1093-1585); CAA Comments 7 [JA1069] (FAA-2009-1093-2221).

[15] UPS Comments 5, 18 [JA1907, JA1920] (FAA-2009-1093-1898); ATA Comments 11 [JA808] (FAA-2009-1093-2333); Southern Air, Inc. Comments 6 [JA1849] (FAA-2009-1093-1585); CAA Comments 7 [JA1069] (FAA-2009-1093-2221).

[16] CAA Proposal 19-20 [JA247-48] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005).

[17] *See* Exemption No. 5296 to DHL Airways at 15 ("The FAA, in considering [DHL's] petition, recognizes that once this circadian rhythm adjustment is made it could be counter-restful to unnecessarily change to a day schedule and then have to readjust to the nocturnal schedule."), *quoted in* UPS Comments 15, 24 [JA1917, JA1926] (FAA-2009-1093-1898).

lead to fatigue problems.[18] Draconian limits on night flying for cargo, however, would impose enormous economic costs without any similar safety benefits.[19]

Cargo pilots also fly many fewer hours per month. On average, passenger flightcrew members (pilots and others) work 59 or 60 block hours per month, while cargo counterparts work between 34 and 45.[20] A CAA membership survey indicated that cargo pilots work 28.0 block hours per month in overnight express operations, and 45.5 per month in other segments.[21]

All-cargo crews also have more, different, and often better, rest opportunities than passenger crews. On the ground, carriers such as FedEx and UPS have invested millions of dollars in "horizontal sleep facilities" at hubs.[22] Crews that fly into a hub for package sorting can sleep in dark, climate-controlled rooms with beds, and get several hours

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[18] UPS Comments 24 [JA1926] (FAA-2009-1093-1898).
[19] *Id.* at 24-25 [JA1926-27].
[20] Initial Supplemental RIA 61 [JA2781], tbl. 14, col. E (FAA-2009-1093-2523).
[21] CAA Comments 8 [JA1070] (FAA-2009-1093-2221).
[22] CAA Proposal 7 [JA235] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); FedEx Comments 13 [JA1366] (FAA-2009-1093-2245); UPS Comments 112 [JA2014] (FAA-2009-1093-1898); CAA Comments 8 [JA1070] (FAA-2009-1093-2221).

of sleep between landing and subsequent launch.[23] In the air, many cargo planes have high-quality, lie-flat bunks—as opposed to passenger seats—and crewmembers resting in-flight do not contend with noise and disturbances from flight attendants and hundreds of passengers.[24]

Individual cargo carriers have taken additional measures to mitigate fatigue. UPS has a fatigue mitigation program that includes restrictive rules triggered by duty periods that overlap the 2:30-4:59am window,[25] a "Shift Rule" to prevent circadian rhythm disruptions from swapping daytime and night flying,[26] and policies for crewmembers to report when they are too fatigued to continue safely.[27]

Finally, as the FAA has recognized, the cargo industry has a strong safety record.[28] No all-cargo aircraft accidents in the past ten

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[23] CAA Proposal 7 [JA235] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); *see also* FedEx Comments 11 [JA1364], q.33 (FAA-2009-1093-2245).

[24] CAA Proposal 7-8, 22-23 [JA235-36, JA250-51] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); CAA Comments 8 [JA1070] (FAA-2009-1093-2221); FedEx Comments 8 [JA1361], q.17 (FAA-2009-1093-2245); UPS Comments 112 [JA2014] (FAA-2009-1093-1898).

[25] UPS Comments 8 [JA1910] (FAA-2009-1093-1898) (citing Collective Bargaining Agreement).

[26] *Id.* at 9 [JA1911].

[27] *Id.* at 10 [JA1912].

[28] Final Supplemental RIA 9, 17 [JA3325, JA3333] (FAA-2009-1093-2541).

years have been attributed to fatigue.[29] From 2003 through the second quarter of 2012, all-cargo airlines operated 10.1 million take-offs and landings with no fatigue-related accidents.[30] From 1982 to 2010, NTSB data reflect only two all-cargo accidents, both non-fatal, that the NTSB attributed in any way to fatigue.[31] The passenger segment, by contrast, has had many more crashes and fatalities, including a 2009 incident that apparently motivated the 2010 legislation directing this rulemaking.[32]

B. Statutory and Regulatory History of Cargo Operations

Since the FAA's creation, Congress has charged it with promulgating "[r]easonable rules and regulations governing, in the interest of safety, the maximum hours or periods of service of airmen, and other employees, of air carriers." Federal Aviation Act of 1958 § 601(a)(5), Pub. L. No. 85-726, 72 Stat. 731, 775. As all-cargo operations have grown since the 1970s, the FAA has increasingly

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[29] CAA Comments (Remand) 13 [JA2887] (FAA-2009-1093-2529).
[30] *Id.* (citing data from DOT Form 41, T-2 for cargo carriers).
[31] *Id.* (citing Nat'l Research Council, *The Effects of Commuting on Pilot Fatigue* 3-9 (2011)).
[32] *See* FAA Br. 31-32 n.8; Final Supplemental RIA 68 [JA3384] tbl. 5 (FAA-2009-1093-2541).

recognized that they differ in important ways from passenger operations. In a 2009 speech on rules to address fatigue, then-FAA Administrator Babbitt observed that "[i]n rulemaking not only does one size not fit all, but it's unsafe to think that it can."[33] Currently, there are "multiple examples of FAA safety regulations that vary by industry segments."[34]

In 1991, DHL sought an exemption from certain flight time and rest requirements. The FAA recognized that cargo operations differed in important ways from passenger operations, and granted the exemption:

> The FAA has never specifically addressed the issue of flight crewmember flight time and rest requirements for air carriers engaged exclusively in the scheduled all cargo overnight delivery service industry. These air carriers must operate either under supplemental flight and duty time rules or domestic flight and duty time rules, neither of which, when written, envisioned the overnight air delivery service industry. [A university] flight and duty time study … recognizes the unique operating environment of this industry and the unique flight and rest time requirements for operating it.

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[33] FAA Administrator J.R. Babbitt, Speech to ALPA Air Safety Forum, *We Can't Regulate Professionalism* (Aug. 5, 2009), *quoted in* CAA Comments 9 [JA1071] (FAA-2009-1093-2221).

[34] Final Supplemental RIA 8-9 [JA3324-25] (listing examples) (FAA-2009-1093-2541).

Exemption No. 5296 to DHL Airways at 15 (Apr. 10, 1991), *available at* aes.faa.gov

As another example, the Department of Transportation's Pipeline and Hazardous Materials Safety Administration has consistently had different rules for cargo and passenger operations for transporting lithium batteries. *See Hazardous Materials; Prohibition on the Transportation of Primary Lithium Batteries and Cells Aboard Passenger Aircraft*, 69 Fed. Reg. 75,208, 75,211 (Dec. 15, 2004) ("These prohibitions do not apply to shipments of primary lithium batteries and cells on a cargo-only aircraft. … RSPA and FAA agree that the greatest risk to public safety is on passenger-carrying operations."). That is in part because certain lithium fires cannot be suppressed by Halon 1301, the only FAA-certified fire suppressant for passenger flights. *Id.* at 75,210.

As the Final Rule also notes, the FAA previously excluded all-cargo operations of planes with more than two engines from requirements of extended range operations rules because the rules were not cost-effective for cargo operations. 77 Fed. Reg. at 336 [JA8] & n.10 (citing *Extended Operations (ETOPS) of Multi-Engine Airplanes*,

72 Fed. Reg. 1808, 1816 (Jan. 16, 2007)).

Under the Final Rule, CAA member airlines remain subject to flight, duty, and rest requirements under subpart S of Part 121 of 14 C.F.R., *see* FAA Br. 9-10 & n.4, which Petitioner barely acknowledges. Those regulations are extensive and limit daily, weekly, monthly, and yearly duty hours for flightcrew members. FAA Br. 9-10 & n.4. And as noted above, cargo operations implement additional safety measures. Cargo pilots fly fewer hours per month than their passenger counterparts fly, on average, *fewer than half* of the 100 hours per month that regulations permit. 14 C.F.R. § 121.503(d)-(e).[35]

C. The 2011 Rulemaking and This Litigation

The FAA's brief describes the history of the rulemaking and this litigation, FAA Br. 3-11, which is not repeated here. CAA offers four additional points of context:

First, the FAA has consistently acknowledged that "pilot fatigue" is a complex problem in which work schedules only play a role, with numerous other factors. NPRM, 75 Fed. Reg. 55,852, 55,854-55 (Sept. 14, 2010) [JA559-60] (§ II.A, "Statement of the Problem"). There are

[35] CAA Comments 8 [JA1070] (FAA-2009-1093-2221); Initial Supplemental RIA 61 [JA2781], tbl. 14, col. E (FAA-2009-1093-2523).

"three types of fatigue," affected by a "variety of factors," including time of day, amount of recent sleep, time awake, cumulative sleep debt, time on task, and individual variations. *Id.* Aviation schedules and other factors (often more so) affect fatigue, *id.*, including what crewmembers choose to do when they are not on duty. "Commuting," for example—where pilots reside hundreds or thousands of miles from duty stations and can fly to duty stations at no cost—is common. *Id.* at 55,874-75 [JA579-80]. Some pilots commute irresponsibly. *Id.* at 55,875 [JA580]. Irresponsible commuting, however, is "difficult to regulate," because pilots do it on their "own time." *Id.* The FAA's regulations restrict one factor that can influence "pilot fatigue," but do not address fatigue itself in any direct, measurable way.

Second, the record supporting the final rule is unusually robust. The FAA received thousands of comments, many of which criticized the "one-size-fits-all" approach reflected in the initial proposal.[36] CAA,

[36] UPS Comments 16 [JA1918] & n.23 (FAA-2009-1093-1898) (quoting Admr. Babbitt); *id.* at 13-14 [JA1915-16]& n.21 ("[T]he rule appears to have been written based on the obviously incorrect assumption that every air carrier, including cargo operators, have passenger cabins. Of course, all-cargo carriers generally do not."); NACA Comments 11 [JA1713] (FAA-2009-1093-2173) (similar, quoting Admr. Babbitt); ATA Comments 10, 52 [JA807, JA849] (FAA-2009-1093-2333) (same); Kalitta

UPS, FedEx, the Air Transport Association ("ATA"), and the National Air Carrier Association ("NACA") in particular submitted detailed comments offering expert analysis and data directly responsive to the complex regulatory problem before the agency. Before the proposed rule issued, some CAA "representatives almost literally devoted their lives to the ARC process," preparing a proposal for the FAA based on scientific analysis and an understanding of how the air cargo industry operates.[37] CAA's later comments included expert scientific and economic analysis of the NPRM[38] and the initial RIA.[39]

UPS's comments documented UPS's expected billions of dollars of compliance costs, and explained how some proposed measures may actually degrade safety if applied to cargo operations.[40] ATA's comments documented improvements made in safety programs over the

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Air Comments 5 [JA1502] (FAA-2009-1093-2287) (same); CAA Comments 9 [JA1071] (FAA-2009-1093-2221) (same); Chamber of Commerce Comments 1-3 [JA1891-93] (FAA-2009-1093-2053) (same); Lynden Air Cargo Comments 6-7 [JA1563-64] (FAA-2009-1093-2164) (similar).

[37] CAA Comments 2 [JA1064] (FAA-2009-1093-2221); NPRM, 75 Fed. Reg. at 55,853 [JA558] nn. 8, 10, 11 (acknowledging proposal); CAA Proposal [JA225-90] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005).

[38] CAA Comments, Attachment F [JA1173-1215] (FAA-2009-1093-2221).

[39] CAA Comments, Attachment G [JA1216-1343] (FAA-2009-1093-2221).

[40] UPS Comments 40-41 [JA1942-43] (FAA-2009-1093-1898).

years,[41] and analyzed the economic effects the proposed rule would have on cargo operations.[42] Notably, that analysis concluded that the FAA initially underestimated costs by a factor of more than fifteen.[43] NACA submitted an expert economic evaluation of the FAA's RIA and explained how the proposed rules would affect nonscheduled carriers.[44]

During the voluntary remand in this case, after the FAA submitted an analysis that drew certain conclusions from a 2002 incident involving a FedEx flight,[45] FedEx was able to review its own data and explain to the FAA precisely what rest the individual crewmembers received and how their schedules worked.[46] The FAA's final supplemental RIA reevaluated that incident and accounted for FedEx's information in the final supplemental regulatory impact analysis.[47]

Third, IPA stands alone in challenging the FAA's Final Rule. IPA is the collective bargaining unit for pilots who fly for UPS, but not for

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[41] ATA Comments 13-15 [JA810-12] (FAA-2009-1093-2333).
[42] ATA, Estimated Job Loss [JA2068-75] (FAA-2009-1093-2436).
[43] ATA Comments 16 [JA813] (FAA-2009-1093-2333).
[44] NACA Comments 14-25 [JA1716-27] & Appx. D [JA1814-21] (FAA-2009-1093-2173).
[45] Initial Supplemental RIA 30 [JA2750] tbl. 7, 108-11 [JA2828-31].
[46] CAA Comments (Remand) 11-12 [JA2885-86] (FAA-2009-1093-2529).
[47] Final Supplemental RIA 18 [JA3334] (FAA-2009-1093-2541).

FedEx or others. P.Br. ii. As UPS's comments explain, applying the Final Rule to cargo operations would "effectively rewrite[] UPS's collective bargaining agreement with its pilots union while hobbling the company's …. network."[48] In asserting that it has standing here, IPA acknowledges that it seeks a bargaining advantage over UPS. P.Br. 18-19 ("The Final Rule … affects the … balance of power in IPA's collective bargaining with UPS."); *id.* at 18 ("IPA is directly injured … because the Final Rule relates directly to work rules that are the subject of collective bargaining."). IPA's arguments are meritless regardless of their provenance, but it bears noting that the "balance of power in IPA's collective bargaining with UPS" is surely not relevant to the FAA's task of regulating to address fatigue, nor to this Court's task of reviewing regulations to ensure that they are not arbitrary and capricious.

Finally, the FAA analyzed costs and benefits in regulatory impact analyses four successive times—(1) with the NPRM,[49] (2) with the final rule,[50] (3) on remand in an initial supplemental RIA,[51] and (4) in a final

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[48] UPS Comments 1 [JA1903] (FAA-2009-1093-1898); *id.* at 7-11 [JA1909-13].
[49] RIA for NPRM [JA411-556] (FAA-2009-1093-0019).
[50] RIA for Final Rule [JA2076-2172] (FAA-2009-1093-2477).
[51] Initial Supplemental RIA [JA2718-2862] (FAA-2009-1093-2523).

analysis.[52] All four times, the analysis showed vastly *negative* net benefits if the rules were applied to cargo operations. Indeed, the magnitude of the negative net benefits increased with each successive analysis. Notice of Final SRIA, 79 Fed. Reg. 72,970, 72,975 [JA3313] tbls. 1-2 (Dec. 9, 2014) (FAA-2009-1093-2544). As the FAA corrected errors, received information, and examined the issues more closely, it became more apparent that applying the proposed rule to cargo would be grossly cost-prohibitive, and cause more harm than good.

SUMMARY OF ARGUMENT

1. Sections 212(a)(1) and (a)(2) authorize cost-benefit analysis. Section 212(a)(1) broadly directs the FAA to consider "the best available scientific information" and address "problems" related to pilot fatigue The FAA must necessarily—or at least may permissibly—weigh benefits against costs to assess the scope of a regulatory "problem," and the appropriate remedy. Section 212(a)(2) likewise directs the FAA to consider a host of factors that implicate costs (differently for passenger and cargo operations), and to consider "*[a]ny* other matters *the Administrator considers appropriate*." This Court and the Supreme

[52] Final Supplemental RIA [JA3314-3508] (FAA-2009-1093-2541).

Court have consistently found that provisions worded similarly to Sections 212(a)(1) and (a)(2) permit cost-benefit analysis.

IPA's contrary arguments run headlong into the plain text of the statute and consistent precedent holding that agencies not only *may*, but usually *must*, consider costs unless Congress directs otherwise. That principle has been the "settled law of this circuit" for decades, *Michigan v. EPA*, 213 F.3d 663, 678 (D.C. Cir. 2000) (per curiam), and was emphatically reaffirmed by the Supreme Court in June of this year. *Michigan*, 135 S. Ct. at 2709. IPA's attempt to derive *implicit* bars against considering costs misread the statute, presume a false dichotomy between "science" and "cost" considerations, ignore that no legislation pursues a purpose at all costs, and ignore the FAA's longstanding practice of considering cost-benefit analyses in connection with major rulemakings.

2. The only rational conclusion to be drawn from the administrative record is that the FAA's revised scheduling rules should not apply to all-cargo operations. The FAA's four cost-benefit analyses all confirmed that what IPA requests here would be irrational and grossly cost-prohibitive. IPA fails to demonstrate otherwise and fails to

acknowledge or contend with the heavy burden it faces in asking the Court to second-guess FAA's cost-benefit analyses.

ARGUMENT

I. The FAA Properly Considered Costs and Benefits in Determining the Extent of its Final Regulations.

A. *Chevron* Governs IPA's Challenge to the FAA's Implementation of the 2010 Act.

The two-step test of *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984), governs this case, where "a court reviews an agency's construction of the statute which it administers." *Id.* at 842. At step one, where IPA primarily makes its stand, the challenger carries a "heavy burden"—it "must do more than offer a reasonable or, even the best, interpretation; it must show that the statute *unambiguously* forecloses the [agency's] interpretation." *Vill. of Barrington v. Surface Transp. Bd.*, 636 F.3d 650, 661 (D.C. Cir. 2011) (original emphasis); *Ass'n of Private Sector Colleges v. Duncan*, 681 F.3d 427, 443 (D.C. Cir. 2012) (quoting *id.*).

At step two, the Court "defer[s] to the administering agency's interpretation as long as it reflects 'a permissible construction of the statute.'" *Sherley v. Sebelius*, 644 F.3d 388, 393 (D.C. Cir. 2011) (quoting *Chevron*). The underlying principle is that "[s]tatutory

ambiguities will be resolved, within the bounds of reasonable interpretation, not by the courts but by the administering agency." *City of Arlington v. FCC*, 133 S. Ct. 1863, 1868 (2013). IPA purports to make a *Chevron* step two argument, but that portion of its brief consists of a handful of bullet points where IPA either means to repeat its earlier arguments or to ask the Court to construct an argument for it. P.Br. 42-43. "Perfunctory or undeveloped arguments are waived." *Estate of Moreland v. Dieter*, 395 F.3d 747, 759 (7th Cir. 2005); *see also Greenpack of P.R., Inc. v. Am. President Lines*, 684 F.3d 20, 30 (1st Cir. 2012); *Tolbert v. Queens Coll.*, 242 F.3d 58, 75 (2d Cir. 2001). IPA's arguments lack merit at both steps, however framed.

B. The 2010 Act Authorizes Cost-Benefit Analysis.

1. Agencies Must Ordinarily Consider Costs Unless Congress Directs Otherwise.

IPA's primary argument is that the 2010 Act categorically forbids the FAA from considering costs in the regulations at issue here.[53]

However, "settled law of this circuit"—and the Supreme Court—holds that it is "only where there is 'clear congressional intent to

[53] P.Br. 20 ("Congress *foreclosed any consideration of costs* ...."); *id.* at 31 ("The FAA was *not authorized to use costs and benefits* as the basis for the new anti-fatigue rules."); *id.* at 15, 31-32 (similar).

preclude consideration of cost' that we find agencies barred from considering costs." *Michigan*, 213 F.3d at 678 (citing five cases). That follows from common sense and basic administrative law principles.

Agencies act arbitrarily and capriciously where they "entirely fail[] to consider an important aspect of the problem." *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Michigan*, 135 S. Ct. at 2707; *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1151-52 (D.C. Cir. 2011) (similar). When agencies impose new duties, compliance costs are almost always "an important aspect of the problem," that must be considered, unless Congress directs the agency not to consider costs. *Michigan*, 135 S. Ct. at 2709; *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1607 n.21 (2014). As a matter of basic rationality, "every real choice requires a decisionmaker to weigh advantages against disadvantages, and disadvantages can be seen in terms of (often quantifiable) costs." *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 232 (2009) (Breyer, J., concurring); *see also EME Homer*, 134 S. Ct. at 1607 ("Using costs in the Transport Rule calculus, we agree with EPA, also makes good sense.").

In *Michigan*, the Supreme Court was explicitly clear that costs

must generally be considered in rulemakings like this one. The statute at issue charged EPA with regulating certain emissions if EPA "finds such regulation is *appropriate and necessary*." 135 S. Ct. at 2706. The majority concluded that Congress *required* EPA to consider costs, *id.* at 2710, and reiterated the principle that costs must ordinarily be considered. "Agencies have long treated cost as a centrally relevant factor when deciding whether to regulate. … [I]t is unreasonable to read an instruction to an administrative agency to determine whether 'regulation is appropriate and necessary' as an invitation to ignore cost." *Id.* at 2707-08. Indeed, all nine Justices agreed on that fundamental point, and disagreed only as to whether EPA had considered costs adequately. Even the dissent observed that "[c]ost is almost always a relevant—and usually, a highly important—factor in regulation. … [A]bsent contrary indication from Congress[,] an agency *must* take costs into account in some manner before imposing significant regulatory burdens." 135 S. Ct. at 2716-17 (Kagan, J., dissenting); *see also id.* at 2707 ("One would not say that it is even rational, never mind 'appropriate' to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits.") (majority). So too

here.

2. Section 212(a)(1) Authorizes Cost-Benefit Analysis.

Section 212(a)(1) of the 2010 Act directs the FAA to "issue regulations, *based on the best available scientific information*, … to address *problems* relating to pilot fatigue." 124 Stat. 2362. On its face, consideration of "the best available scientific information" and "problems" necessarily require consideration of scientifically sound information to permit an agency to determine the scope of a regulatory problem and weigh any potential regulatory solution's expected benefits against costs. As the FAA explains, "scientific information" is to be used to determine the *scope* of the "problems related to pilot fatigue," not just the remedy. FAA Br. 36. Inherent in the notion of a "problem" is the weighing of costs and benefits. Whether something is a "problem" depends on the relative harms and benefits, particularly where, as here, the 30-year safety record shows *no* cargo carrier crashes attributable to fatigue that the new passenger carrier rules might have prevented.

Despite seemingly clear statutory language, IPA argues that

§ 212(a)(1) is actually a categorical *bar* against considering costs.[54] IPA does not argue that anything in the 2010 Act *explicitly* forbids the FAA from considering costs. Nor, apparently, does any legislative history indicate that costs should not be considered. P.Br. 32-33 (discussing legislative history, citing nothing on this point). That should end the matter. As explained above, binding precedent is unequivocal that cost is ordinarily an "important part of the problem" that agencies not only may, but usually *must*, consider unless Congress directs otherwise. *Michigan*, 135 S. Ct. at 2709; *EME Homer*, 134 S. Ct. at 1607 n.21; *Riverkeeper*, 556 U.S. at 222; *Michigan*, 213 F.3d at 678.

IPA, however, attempts to divine an *implicit* directive to ignore cost from the statute's explicit directives to the FAA to consider "science" and address "problems relating to pilot fatigue."[55] IPA's arguments are meritless, for reasons the FAA explains, FAA Br. § II, and others.

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[54] *See* note 53, *supra*.

[55] P.Br. 28 ("The FAA abandoned the *science-based* methodology … in favor of a *cost-based* approach."); *id.* at 29 (The question presented is whether Congress "authorized the FAA to base … rules *on a cost-benefit analysis rather than the best scientific information about pilot fatigue*."); *id.* at 33 ("Congress intended to direct the FAA to adopt the new rules based on modern fatigue *science rather than the cost* impacts…."); *id.* at 37-38 (similar).

First, there is no inconsistency between "costs" and "science." At bottom, IPA has to presume that "science" and "costs" are two inconsistent parts of a dichotomy in order to contend that an explicit directive to consider "science" is necessarily an implicit directive to disregard costs. This Court has consistently rejected similar arguments that statutory "mandate[s] phrased in general quantitative terms ('ample margin of safety,' 'substantial restoration,' and 'major'), and contain[ing] not a word alluding to non-health tradeoffs" implied a prohibition against considering costs. *Michigan*, 213 F.3d at 679. In this Court's *Michigan* case and cases *Michigan* discussed, this Court found "that in making its judgments of degree *the agency was free to consider the costs of demanding higher levels of environmental benefit*." *Id.*[56] In *Riverkeeper*, the Supreme Court likewise rejected an argument that "best technology available for minimizing adverse environmental impact" precluded reliance on cost-benefit analysis. 556 U.S. at 218-20.

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[56] IPA twice cites *Owner-Operator Indep. Drivers Ass'n v. FMCSA*, 494 F.3d 188 (D.C. Cir. 2007). P.Br. 20, 29. *Owner-Operator*, however, *approved* the use of cost-benefit analysis and remanded only because the agency failed to provide an opportunity to comment on its methodology or a sufficient explanation for two parts of the rule. 494 F.3d at 206. IPA does not argue—nor could it—that either concern exists here.

Rather, the Court reasoned, "'best technology' may also describe the technology that *most efficiently* produces some good… [or] produces a good at the lowest per-unit cost, even if it produces a lesser quantity of that good than other available technologies." *Id.* at 218 (original emphasis).

IPA relies heavily on *Whitman v. American Trucking Associations*, 531 U.S. 457 (2001), but the Supreme Court explained in *Michigan* that *Whitman* "establishes the modest principle that where the [statute] directs [the agency] to regulate on the basis of a factor that on its face does not include cost, the Act normally should not be read as implicitly allowing the Agency to consider cost anyway." 135 S. Ct. at 2709; *see also EME Homer* 134 S. Ct. at 1607 n.21 (similarly distinguishing *Whitman*); *Riverkeeper*, 556 U.S. at 223 (same).

In contrast to the statutory scheme in *Whitman*, Section 212(a)(1) is not meaningfully different from the statutes in the Supreme Court's *Michigan* and *Riverkeeper* cases and this Court's *Michigan* case. Section 212(a)(1) instructs the FAA to "issue regulations, based on the best available scientific information," to limit permissible flight and duty schedules "to address problems relating to pilot fatigue." 124 Stat.

2362. Nothing suggests a dichotomy between "science" and "cost." A cost-benefit analysis is simply a rational assessment of what benefits (mitigation of "problems related to pilot fatigue") the agency should expect from any proposed scheduling regulations. Absent any benefits, no regulation would be rational. *Riverkeeper*, 556 U.S. at 232 ("[E]very real choice requires a decisionmaker to weigh advantages against disadvantages.") (Breyer, J., concurring).

Neither costs nor benefits can be rationally considered here without scientific information.[57] The administrative record is replete with evidence that the FAA's proposed scheduling rules would have vastly different effects in cargo and passenger operations and would produce vastly different "benefits." Cargo pilots fly differently-structured routes, at different times, for fewer hours per month than passenger pilots, and have different opportunities for rest, and different options when flights are delayed or extended.[58] Those collectively affect different "problems related to pilot fatigue" differently in passenger and cargo operations. It is not inconsistent with "science" for the FAA to consider that cargo and passenger operations are different, and the

[57] CAA Comments (Remand) 4 [JA2878] (FAA-2009-1093-2529).
[58] *Statement of the Case* §A, *supra*.

same inputs (scheduling regulations) can be expected to produce different outputs in terms of "problems related to pilot fatigue." Nor is it inconsistent with science to recognize that problems posed by all-cargo accidents are different from the problems posed passenger accidents with dozens or hundreds of passengers on board. IPA's contrary arguments ignore the science, the record, and reality. All-cargo aviation has had only two fatigue-related all-cargo accidents since 1982 (both non-fatal), *none* in the past decade, and no accidents that would have been affected by the revised scheduling regulations.[59]

Continuing its erroneous theme that the statutory directive to consider science implies remarkable exceptions to normal administrative practice, IPA insinuates that the FAA's consultation with the Office of Information and Regulatory Affairs (OIRA) was somehow improper. P.Br. 26-27. It was not. Longstanding precedent recognizes the propriety of—and need for—consultation within the executive branch on agency rules in the making.[60] As the director of

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[59] CAA Comments (Remand) 13 [JA2887] (FAA-2009-1093-2529).

[60] *See Sierra Club v. Costle*, 657 F.2d 298, 405 (D.C. Cir. 1981) ("The court recognizes the basic need of the President and his White House staff to monitor the consistency of executive agency regulations with Administration policy. [They] surely must be briefed fully and

OIRA at the time these rules were reviewed has explained, OIRA's review aims to improve the quality of the agency's analysis, including by ensuring that available experts with relevant scientific expertise are consulted, and that the agency's cost-benefit analysis is sufficiently credible and rigorous. Cass R. Sunstein, *The Office of Information and Regulatory Affairs: Myths and Realities*, 126 HARV. L. REV. 1838, 1856, 1864 (2013); *see also Final Information Quality Bulletin for Peer Review*, 70 Fed. Reg. 2664, 2665-66 (Jan. 14, 2005) (OMB bulletin encouraging peer review to improve agencies' scientific analyses).

Consistent with the President's responsibility to oversee Departments and agencies, and with OIRA's open-door policy, *see* Sunstein, 126 HARV. L. REV. at 1860, OIRA representatives met with numerous stakeholders. Indeed, *IPA itself* met with OIRA. *Meeting Record Regarding: Crewmember Flight Duty and Rest Requirements Rule* (Nov. 14, 2011), *available at* http://www.whitehouse.gov/omb/

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frequently about rules in the making, and their contributions to policymaking considered."); *New Mexico v. EPA*, 114 F.3d 290, 295 (D.C. Cir. 1997) (similar); *Monongahela Power Co. v. Reilly*, 980 F.2d 272, 279 (4th Cir. 1993) ("Monongahela's second argument, even if we accept as true the premise that the White House exerted influence over the EPA, is frivolous. … [A]ny policymaking influence exerted over the EPA by the White House—provided such was consistent with law—was fully permissible under our tripartite system of separated powers.").

2120_meeting_11142011. OIRA's review and approval is merely further evidence that the FAA's actions were legitimate and well-founded.

Second, IPA's arguments ignore the principle that "[n]o legislation pursues its purposes at all costs," and "it frustrates rather than effectuates legislative intent simplistically to assume that *whatever* furthers the statute's primary objective must be the law." *Rodriguez v. United States*, 480 U.S. 522, 525-26 (1987) (per curiam) (original emphasis); *see also Bd. of Governors v. Dimension Fin. Corp.*, 474 U.S. 361, 373-74 (1986). If IPA's arguments that the FAA is prohibited from considering costs were taken seriously, it would follow that the FAA was required to ground all planes. Flying, like most activities, involves inherent risks—which are justified (or not) by weighing costs against benefits.

Scheduling regulations have a complex, indirect relationship to "problems relating to pilot fatigue." NPRM, 75 Fed. Reg. at 55,854-55 [JA559-60] (§ II.A, "Statement of the Problem"); Final Supplemental RIA 55 [JA3371] (FAA-2009-1093-2541). The FAA's regulations do not purport to end pilot fatigue, nor could they. Other factors such as commuting contribute to fatigue, and no scheduling regulation—short of

a complete ban on flying—can prevent pilot fatigue or its attendant "problems." NPRM, 75 Fed. Reg. at 55,855 [JA560]. To permit any plane to take off with a human pilot is necessarily to accept some risk, rather than to impose additional costs to eliminate that risk.

But IPA does not seek an order grounding all planes. Instead, IPA wants the FAA's revised scheduling rule for other types of flights unthinkingly extended to cargo flights. P.Br. 58. However, in issuing that revised rule for passenger flights, the FAA explicitly relied on "costs," 77 Fed. Reg. at 332, 338, 347, 367, 390-96 [JA4, JA10, JA19, JA39, JA62-68]—which IPA insists is categorically *verboten* under the statute. Nor did the FAA's revised rule purport to eliminate all problems related to pilot fatigue on passenger flights. Rather, the FAA considered costs, and went as far as it did, but no further. There is no principled basis to argue that the Court should subject the all-cargo industry to one cost-based rule rather than another, on the ground that cost considerations are categorically forbidden. *Cf. Michigan*, 213 F.3d at 678 ("Petitioners conspicuously fail to describe the intellectual process by which EPA would determine 'significance' if it may consider only health. … Without consideration of cost it is hard to see why *any*

ozone-creating emissions should not be regarded as fatally 'significant.'") (original emphasis).

3. Section 212(a)(2) Authorizes Cost-Benefit Analysis.

If anything, Section 212(a)(2)(M) is even clearer than Section 212(a)(1) in authorizing the FAA to consider costs. Section 212(a)(2)(M) authorizes the FAA to consider "*[a]ny* other matters *the Administrator considers appropriate*." 124 Stat. 2363. "'Appropriate,'" the Supreme Court explained in *Michigan*, "is the classic broad and all-encompassing term that naturally and traditionally includes consideration of all the relevant factors." 135 S. Ct. at 2707 (citation and internal quotation marks omitted). "Any other matters" is similarly broad language. By its terms, Subsection (M) textually commits the question of what matters are "appropriate" to the FAA's judgment ("matters *the Administrator considers* appropriate"), subject to background principles of administrative law such as the requirement that the choice of "other matters" is rational.

As the FAA explains, binding precedent—particularly the Supreme Court's recent *Michigan* case—forecloses IPA's argument that § 212(a)(2)(M) somehow forbids the FAA from considering cost. FAA Br.

24-28. Here, as in *Michigan*, Congress used expansive words to describe the agency's task. And here, as in *Michigan*, it would have been arbitrary and capricious if the agency had *failed* to consider costs in imposing new regulatory burdens. *Michigan* and § 212(a)(2)(M) are reason enough to reject IPA's arguments that the FAA was forbidden to consider costs.

IPA's arguments should be rejected for the further reason that they repeat IPA's errors of presuming a dichotomy between "costs" and "science" and of arguing that the FAA was required to pursue a particular purpose at all costs. IPA argues that "Section 212(a)(2)'s 12 factors all relate to matters that Congress believed cause or contribute to fatigue or relate to ways to address fatigue." P.Br. 37. That may be so, but not fatigue to the exclusion of cost. No factor explicitly forbids costs, nor does any even relate to matters for which "cost" is categorically irrelevant—quite the contrary.

Section 212(a)(2) is titled "Matters to be Addressed," and directs the FAA to "consider and review the following":

> (A) Time of day of flights in a duty period.
>
> (B) Number of takeoff and landings in a duty period.
>
> (C) Number of time zones crossed in a duty period.

> (D) The impact of functioning in multiple time zones or on different daily schedules.
>
> (E) Research conducted on fatigue, sleep, and circadian rhythms.
>
> (F) Sleep and rest requirements recommended by the National Transportation Safety Board and the National Aeronautics and Space Administration.
>
> (G) International standards regarding flight schedules and duty periods.
>
> (H) Alternative procedures to facilitate alertness in the cockpit.
>
> (I) Scheduling and attendance policies and practices, including sick leave.
>
> (J) The effects of commuting, the means of commuting, and the length of the commute.
>
> (K) Medical screening and treatment.
>
> (L) Rest environments.
>
> (M) Any other matters the Administrator considers appropriate.

124 Stat. at 2362-63.

"Medical screening and treatment," for example (§ 212(a)(2)(K)), is not costless. Like many other goods and services in society, different types of "medical screening and treatment" exist, and provide different benefits at different costs.

"Rest environments" (subsection (L)), are not costless either, and

vary considerably between cargo and passenger operations. The decision whether to provide a king bed or a cot requires balancing costs and benefits. As the record comments explain in detail, FedEx and UPS have invested millions of dollars on high-quality "horizontal sleep facilities" at their hubs,[61] and lie-flat bunks on their planes—which are free of the space constraints and distractions of passenger flights.[62] How the FAA treats those facilities and whether it chooses to regulate in a way that requires or incentivizes changes, expansion, or contraction of those facilities is plainly within the purview of the statute.

"Alternative procedures to facilitate alertness in the cockpit" (subsection (H)) inherently requires a consideration of costs. UPS's comments explain its comprehensive fatigue mitigation program, which includes several alternative procedures.[63] Those measures are not costless; many are in UPS's collective bargaining agreement with IPA.

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[61] CAA Proposal 7 [JA235] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); FedEx Comments 13 [JA1366] (FAA-2009-1093-2245); UPS Comments 112 [JA2014] (FAA-2009-1093-1898); CAA Comments 8 [JA1070] (FAA-2009-1093-2221).

[62] CAA Proposal 7-8, 22-23 [JA235-36, JA250-51] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); CAA Comments 8 [JA1070] (FAA-2009-1093-2221); FedEx Comments 8 [JA1361], q.17 (FAA-2009-1093-2245); UPS Comments 112 [JA2014] (FAA-2009-1093-1898).

[63] UPS Comments 7-11 [JA1909-13] (FAA-2009-1093-1898).

Again, different procedures offer different benefits at different costs.[64]

In short, nothing in Section 212(a)(2) supports IPA's arguments for an implicit prohibition on considering costs. Thus, in addition to the flaws the FAA's brief identifies, IPA's arguments should also fail on a straightforward reading of the statute's plain terms. It likely would have been arbitrary and capricious for the FAA *not* to consider costs.

4. For Decades, the FAA Has Consistently Considered Costs and Benefits in Connection with Major Rules.

If more is needed to reject IPA's argument that a cost-benefit analysis was implicitly forbidden, the FAA's consistent practice for decades—of using cost-benefit analyses with nearly every major rulemaking—is powerful evidence. Consistent with decades of Executive Orders, administrative law principles, Supreme Court precedent, statutes such as the Regulatory Flexibility Act and the Unfunded Mandates Act, and rational common sense, the FAA has long considered cost as a "central feature of agency rulemaking." 79 Fed. Reg. at 72,972 [JA3310] & nn. 18-20 (citing five rules between 1985 and

[64] Further, nothing in the phrase "international standards regarding flight schedules and duty periods" (subsection (G)) implies that the FAA should only international standards that do not rely on cost-benefit analyses (if any such relevant standards even exist).

2013, all of which included cost-benefit analyses) (FAA-2009-1093-2544). That practice includes the 1985 flight and duty rules. *Flight Time Limitations and Rest Requirements*, 50 Fed. Reg. 29,306, 29,318-19 (July 18, 1985), and other rules with obvious "safety" implications. *E.g.*, *Reduction of Fuel Tank Flammability in Transport Category Airplanes*, 73 Fed. Reg. 42,444, 42486-88 (July 21, 2008).

The Congress that enacted the 2010 Act cannot have been surprised when the FAA conducted a cost-benefit analysis here. There is no indication in the statute or legislative history that Congress sought to put an end to it or to make an exception for this rulemaking. Here, as in *Riverkeeper*, "[w]hile not conclusive, it surely tends to show that the [agency's] current practice is a reasonable and hence legitimate exercise of its discretion to weigh benefits against costs that the agency has been proceeding in essentially in this fashion for over 30 years." 556 U.S. at 223.

II. The FAA's Cost-Benefit Analysis Was Not Arbitrary or Capricious.

The FAA's brief thoroughly rebuts IPA's objections to the substance and methodology of the FAA's cost-benefit analysis, and explains why IPA fails to overcome or even fully acknowledge the

degree of deference the FAA receives here. FAA Br. § III. On review, the Court does "'not look at the [agency's] decision as would a scientist, but as a reviewing court exercising our narrowly defined duty of holding agencies to certain minimal standards of rationality.'" *Am. Trucking Ass'ns v. FMCSA*, 724 F.3d 243, 249 (D.C. Cir. 2013) (quoting *Nat'l Envtl. Dev. Ass'n Clean Air Project v. EPA*, 686 F.3d 803, 810 (D.C. Cir. 2012)); *see also* Caroline Cecot & W. Kip Viscusi, *Judicial Review of Agency Benefit-Cost Analysis*, 22 GEO. MASON L. REV. 575, 590-92, 600-01 (2015). In cases like this, for cost-benefit analyses in particular, "it is not for [the Court] to undertake our own economic study and substitute the Court's views for those of the agency." *Am. Trucking*, 724 F.3d at 254. The FAA's analyses amply support its decision to leave all-cargo operations subject to preexisting rules, and IPA's petition should be denied.

The FAA's final analysis is, if anything, highly conservative in its assessments, and did not "tilt" against IPA. The FAA found that the revised scheduling rule would have been net-detrimental if applied to cargo operations—even without accepting additional points that further undermine IPA's position.

First, as CAA noted in comments, more restrictive scheduling rules would require airlines to hire and train over 1,000 new pilots at a time of a pilot shortage. The rules would restrict the hours of the most experienced pilots and would require less experienced pilots to relieve them.[65] Even if all pilots are somehow less "fatigued," introducing 1,000+ new pilots into the work force with less experience and training in the unique operations of cargo carriers poses a different safety risk that makes IPA's position even more untenable.

Second, as UPS, FedEx and CAA commented, the revised scheduling rules' restrictions are such a poor fit for express delivery operations that they would impose massive costs without any significant safety benefits. UPS anticipated $1.8 *billion* dollars in direct operation compliance costs for itself alone, including hiring and training new crewmembers and staff, required pay increases, and aircraft modification costs to comply with a regulatory definition of "rest facility" apparently drafted with passenger operations in mind.[66] Further, the revised scheduling rules would put UPS and others to several difficult, costly choices. For example, if UPS could not find or

[65] CAA Comments 34-35 [JA1096-97] (FAA-2009-1093-2221).
[66] UPS Comments 38-40 [JA1940-42] (FAA-2009-1093-1898).

afford to hire and train needed additional crewmembers, it would have to delay and cancel flights—to the detriment of UPS's reputation for reliable service, and the economic (or worse) detriment of customers who depend on timely delivery.[67] Similarly, because of a particular mismatch between the revised scheduling rules and UPS's Boeing 767-300ER freighters, UPS would be put to a choice between reconfiguring its global shipping network, and/or disposing of its 767 fleet and cancelling pending orders with Boeing.[68]

Third, as CAA submitted, the initial cost for required fatigue training would be approximately $147.1 million for dispatchers and upper management.[69] The Initial Supplemental RIA estimated those costs at $1.1 million.[70] The Final Supplemental RIA changed that number to $1.3 million,[71] but that cautious estimate understated costs by orders of magnitude.

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[67] *Id.* at 42 [JA1944].
[68] *Id.* at 43-45 [JA1945-47].
[69] CAA Comments (Remand) 9-10 [JA2883-84] (FAA-2009-1093-2529) (noting estimate).
[70] Initial Supplemental RIA 86 [JA2806], 88 [JA2808] tbl. 34 (FAA-2009-1093-2523).
[71] Final Supplemental RIA 132 [JA3448], 134 [JA3450] tbl. 32 (FAA-2009-1093-2541). The final analysis acknowledged the CAA's comments, but did not respond substantively. *Id.* at 54 [JA3370].

Fourth, while the FAA was correct to revise the effectiveness rating assigned to the 2002 FedEx incident downward (from 75% to 15%),[72] CAA and Atlas Air explained that the revised scheduling rule would have made *no* difference.[73] FedEx reviewed its own data and explained what rest each crew member received and how their schedules worked.[74] The schedules and rest would have been in compliance with the revised regulations, if they had applied at the time.[75] As the FAA acknowledged, the NTSB did not attribute the crash to fatigue, and the crash "occurred on visual approach over a black hole with a color-blind pilot trying to use" a color-based navigation tool.[76]

It is thus plain that the FAA's cost-benefit analysis was, if anything, highly conservative, yet it still showed the revised scheduling rule as producing massively more harm than good if applied to cargo

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[72] *Id.* at 66 [JA3382]; *see also* CAA Comments (Remand) 11-12 [JA2885-86] (FAA-2009-1093-2529).
[73] CAA Comments (Remand) 11-12 [JA2885-86] (FAA-2009-1093-2529); *see also* Atlas Air Comments (Remand) 4-5 [JA2871-72] (FAA-2009-1093-2530).
[74] CAA Comments (Remand) 11-12 [JA2885-86] (FAA-2009-1093-2529).
[75] *Id.* at 11 [JA2885].
[76] *Id.* [JA2885] (quoting Initial Supplemental RIA 110-111[JA2830-31] (FAA-2009-1093-2523)); *see also* Final Supplemental RIA 157-58 [JA3473-74] (FAA-2009-1093-2541).

carriers. The FAA analyzed the costs and benefits of the proposed rule four times. Every time, the FAA concluded (with OIRA review and approval) that if its proposed rules were applied to cargo operations, the net costs and benefits would be massively negative—and more so with each analysis as the FAA corrected errors and processed more information. In the final analysis, FAA concluded that the revised 2011 rule was cost-effective if cargo operations were excluded from the revised rule (but remained subject to the preexisting rule), and massively cost-prohibitive if cargo operations were included. Extending the rule to cargo operations, the FAA estimated, would confer $3 million to $10 million in additional benefits, and approximately *$452 million* in additional costs.[77] In other words, the costs would be at least *45 times* greater than the benefits. On this record, it would have been arbitrary and capricious to do anything *other than* what the FAA did.

That result is unsurprising. Given the all-cargo segment's strong safety record, any scientifically sound analysis of the all-cargo industry's risk of "problems related to pilot fatigue" could only conclude

[77] Final Supplemental RIA 4-5 [JA3320-21] (FAA-2009-1093-2541).

that the risk of another crash is already quite low.[78] In this case, as with several previous FAA rules,[79] when rules designed with passenger operations in mind are applied without change to cargo operations, the intended benefits do not translate directly and the costs are multiplied.

The FAA reasonably considered and addressed the costs and benefits of applying the revised scheduling rule to all-cargo operations, and made the only reasonable decision possible based on overwhelming evidence that costs far exceed very limited benefits.

* * *

The FAA was entitled to consider costs and benefits, and properly did so here. Under *Michigan* and *Riverkeeper*, that should be the end of the matter.

Were the Court to disagree, the remedy would not be for this Court itself to impose the new scheduling rules on the all-cargo industry by fiat. Not even IPA argues that the 2010 Act required the FAA to revise scheduling rules *identically* for all types of operations. Before the

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[78] *See, e.g.*, Final Supplemental RIA 5 [JA3321] (FAA-2009-1093-2541). Further, the cost in human lives is more than an order of magnitude greater for a plane transporting a crew and 300 passengers than a plane with a crew and 10,000 boxes.

[79] *Statement of the Case* §B, *supra*.

agency, CAA, UPS, and others offered specific alternative proposals and detailed evidence explaining fundamental flaws in the FAA's initial proposal to apply the same one-size-fits-all rule to all-cargo operations.[80] Once the FAA correctly decided that those rules should not apply to all-cargo operations, those concerns became moot. CAA was not required to file a contingent cross-petition to preserve its rights to judicial review if IPA were to prevail here. *Cf. Crocker v. Piedmont Aviation, Inc.*, 49 F.3d 735, 741 (D.C. Cir. 1995). The remedy would be, at most, a remand for the FAA to consider, after notice and comment, what rules would be appropriate for cargo operations. For the reasons explained above and in the FAA's brief, however, IPA's arguments are meritless, and its petition should be denied.

[80] UPS Comments 52-65 [JA1954-67] (explaining lack of scientific evidence for the proposed rule); *id.* at 65-73 [JA1967-75] (discussing alternatives); CAA Proposal [JA225-90] (Attachment 1 to ARC Recommendations, FAA-2009-1093-0005); CAA Comments 2 [JA1064] (FAA-2009-1093-2221) (noting alternative proposal); NPRM, 75 Fed. Reg. at 55,853 [JA558] nn. 8, 10, 11 (acknowledging proposal).

CONCLUSION

IPA's petition should be denied.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATIONS

This brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7) and Circuit Rule 32(e)(2)(B)(i). According to the word processing system used to prepare it, this brief contains 8,750 words.

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CERTIFICATE OF SERVICE

The foregoing brief was filed with the Court through the CM/ECF system on November 20, 2015. All parties are represented by registered CM/ECF users and will be served by the CM/ECF system.

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