

**Executive Summary
IPA Comments to FAA Docket on
Interim Supplemental Regulatory Impact Analysis for
Cargo Exclusion from Part 117 Duty and Rest Rules**

Summary:

Due to intensive lobbying efforts by the air cargo industry, the FAA in December 2011 reversed course and excluded cargo pilots from congressionally mandated science-based pilot rest and duty rules.

After the fact, and in response to a lawsuit filed by the UPS pilots, the FAA attempted to justify its decision by producing a benefit cost analysis “BCA” that overstated the costs and understated the benefits of applying the rules to cargo operations.

With the assistance of a BCA expert, the IPA has produced an alternative, more realistic BCA that demonstrates the value of including cargo pilots in the new rule set to take effect in 2014.

Background – Before Second FAA Benefit Cost Analysis, December 2012

- * In 2009, a commuter aircraft crashed in route to Buffalo, New York killing all 49 people aboard and 1 person on the ground. The NTSB determined that the pilots were likely impaired due to the effects of fatigue.
- * The Colgan crash accelerated a longstanding effort to bring the benefits of modern science to antiquated pilot duty and rest rules. In 2010, Congress acted. In that year Congress passed and the President signed legislation directing the FAA to re-write the nation’s pilot duty and rest rules to incorporate the latest science.
- * In September of 2010 the FAA did as Congress instructed and published a preliminary set of duty and rest rules applicable to all commercial pilots, passenger and cargo. This rulemaking followed a process of extensive input from all industry stakeholders including operators and unions, and specific changes were made in this NPRM to accommodate cargo operators such as UPS and FedEx.
- * Those accommodations, however, were not apparently enough. In late 2011, the cargo industry increased lobbying pressure on the Executive Branch—specifically on the White House’s Office of Management and Budget—to carve-out or exclude cargo pilots from the new rules set to take effect in 2014.

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- * In December 2011, the FAA acted at the “request” of OMB, and published a final rule excluding cargo. The basis of the exclusion rested on Benefit Cost Analysis (or “BCA”) that even the FAA now admits was flawed and one the contained errors.
- IPA immediately challenged the cargo carve-out in court.
- * First, our lawsuit alleged that the FAA had not followed proper procedure in issuing the final rule. The cargo lobby was allowed an end-run around the public comment process. The public was denied any opportunity to review or comment on the impact of excluding cargo operations from these rules because the FAA had initially included all pilots.
- * Second, the FAA premised its exclusion of cargo on a Benefit Cost Analysis or “BCA.” Two points here. We believe Congress’ mandate to the FAA was to fix this problem without regard to artificially subdividing aviation into component pieces such as passenger versus cargo. We also believe that any application of a BCA is a violation of congressional intent. The comments filed today outline IPA’s legal argument that the FAA lacked the authority to exclude cargo pilots from the final rule based on any BCA, as well as flaws in the BCA.

FAA Issues Revised BCA, December 2012

- * This past December (2012) a year after issuing its Final Rule, the FAA issued a new regulatory impact analysis (RIA) purporting to justify the carve-out on the grounds that the benefits of applying the rule to cargo operations fall short of the costs the rule would impose on cargo carriers.
- * In reviewing the FAA’s work product, the IPA hired a leading BCA expert who has performed BCA analysis work for the FAA, DOT, and other federal agencies in the past.
- * Based on the IPA’s review, we find that the FAA’s current BCA has substantially overstated the costs and understated the benefits of including all commercial pilots under the same set of rest and duty rules. We find that the BCA contained in the FAA’s December RIA substantially deviated from professional standards and norms associated with conducting Benefit/Cost studies in the aviation industry.

Fundamental Problems with FAA’s revised BCA

- Even assuming FAA could consider costs, the Agency is obligated to prepare an objective, professional BCA, which it has failed to do.
- A properly prepared BCA that simply corrected FAA errors would reduce projected costs of compliance for cargo carriers by at least **\$175 million**.
 - These corrections relate to mistaken FAA assumptions concerning the percentage of active line pilots (as opposed to reserve pilots and those on leave) and the costs of installing compliant rest facilities aboard aircraft.

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- In addition, FAA should have made an estimate of the operational costs it states that it believes the carriers could avoid.
- Moreover, FAA ignored or did not quantify a long list of potential benefits of applying the proposed rule to cargo operations, including benefits that FAA itself acknowledged were real and potentially very large.
 - Ignored or understated benefits relate to the potential number of cargo accidents avoided because of the rule, and the avoidance of costs related to the number of passengers aboard cargo aircraft, potential deaths, injuries and damage to persons and property on the ground; the value the aircraft and its cargo; avoiding taxiing and ramp accidents; and the general ability of non-fatigued pilots to deal with in-flight emergencies.
- By making more realistic estimates of costs and benefits, IPA believes that the BCA for cargo operations would approximate that of passenger operations that FAA included within the scope of the rule.

FAA Understated the Benefits of Applying the Final Rule to All-Cargo Operations

- In addition to mistakes on the cost side, the FAA low-balled the benefits that can rationally be identified in applying these important safety rules to all commercial airline pilots.
- * The FAA claims that societal benefits would only range **from \$5 million (base or “low” case) to \$31 million (high case)** – based on avoiding *one fatigue-based all-cargo flight accident* in ten years.
- So, by FAA calculations contained in their BCA, a cargo crash could cost \$5M on the low end and \$31M on the high end. So do the cargo carriers themselves insure for these amounts? Here’s a fact: UPS insures itself in the amount of **\$1.5 BILLION** for all costs related to a *single accident*.
 - Even if UPS over-insured by a factor of 2-4 times, a reasonable per accident high case would be **\$375 million to \$750 million**.
 - This is **12 to 25 times higher than FAA’s highest estimate** of accident costs.
- FAA’s estimate of cargo benefits is woefully low.
- As mentioned, IPA hired a BCA expert, David Berkey, who has performed other BCAs as a subcontractor for the FAA, DOT and other federal agencies, to determine what standards apply to conducting a BCA, what a reasonable, professional BCA on this issue would be, and what FAA overlooked or did incorrectly.

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- With his help, IPA has identified the following areas where FAA grossly underestimated benefits or should have considered alternative scenarios:
 - ***Number of fatigue-related flight accidents avoided*** – FAA’s claim that because there was only one such cargo accident in the past ten years, there would only be one in the next ten years is simplistic and unrealistic. FAA should at least have considered the possibility that other accidents would occur in the absence of the Final Rule.
 - ***Value of the aircraft involved in the accident*** – FAA assumes the same aircraft, a 727, which crashed ten years ago, will be involved in the next accident; yet the 727 will be virtually out of the fleet by the 2014-2023 benefit analysis period.
 - FAA valued the 727 at \$1.8 million.
 - * Yet elsewhere in the BCA, in valuing a typical aircraft to determine costs of retrofitting it with rest facilities, FAA selected a different aircraft and assigned a value of \$69 million.
 - A more realistic range of aircraft values for estimating accident benefits would be \$11 M to \$61 M.
 - ***Number of Passengers on board aircraft*** – FAA assumes no passengers, but UPS aircraft have 4-10 passenger seats, and routinely carry company officials, workers, government officials, and other individuals.
 - ***Value of cargo, including high-value, urgently needed medical supplies, etc.*** – FAA valued the loss of cargo at **\$2.7 million**, but NTSB reports that the insured value of cargo in a 1996 DC-10 accident was **\$300 million**.
 - Even adjusting for the size of the airplane, cargo aboard a 757 could be worth **\$125 million**, , although that should be adjusted for inflation.
 - ***Injuries, deaths, and damage to on the ground.*** FAA assumed none, even in its “high case,” but worldwide cargo accidents averaged 5.5 fatalities on the ground, with a high of 47 people when a cargo plane smashed into an apartment building in Amsterdam. For example
 - Avoiding 6 ground fatalities would save \$37 million;
 - Avoiding 10 ground fatalities would save \$62 million.

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- FAA's approach lacks cost realism and common sense. It is akin to saying that if a town had one drunk driving accident in the past decade, there is no need to crack down on drunk driving, because you will only have one drunk driving accident in the next decade, and, moreover, it will be in the same type of car, whose Blue Book value will be next to nothing, and, since no other cars or pedestrians were hurt in the last accident, no one outside the car will be hurt the next time either.
- Interestingly, FAA does regulate pilots' intake of liquor and drugs, and **prohibits** both commercial passenger and **cargo pilots from flying an aircraft if they have a blood alcohol level of .04 or more.**
- Scientific studies have shown that **moderately fatigued persons are impaired to the same extent as someone with a blood alcohol level of .05.**
- Thus, FAA safeguards against cargo pilots being impaired from alcohol, but not from fatigue.
 - Even FAA acknowledges existing rules do not adequately protect against a fatigue-based accident.
- FAA makes no attempt to quantify -- or consider at the end of the benefit cost analysis -- other, broader and potentially high value societal benefits that FAA had acknowledged, but did not attempt to quantify or consider in the cargo context, including:
 - Avoidance of fatigue-based taxiing accidents (ground movement of aircraft) which FAA says are very costly, in the aggregate;
 - More alert pilots as decision-makers in dealing with emergencies; and
 - Healthier pilots who avoid some diseases and attendant medical costs.
- Thus, FAA fails to follow applicable Executive Orders and agency guidance to "assess all costs and benefits" and quantify them where possible, and consider qualitative benefits that are difficult to quantify, but are nonetheless essential.

FAA's Estimate of Costs is Excessive

- FAA claims the costs of compliance for all-cargo operators would be \$550 million over twelve years. **IPA estimates that this figure overstates costs by at least \$235 million.**
- A more accurate cost figure would be \$315 million, and this may even be high.
- FAA made significant errors in estimating costs.
- FAA assumes that cargo carriers will have to spend **\$66 million** in retrofitting aircraft with rest facilities to allow them to meet the Final Rule's requirements, including

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ancillary costs related to down time for aircraft during installation and increased fuel burn due to the heavier weight of the rest facilities.

- IPA has determined, however, that a much cheaper, yet compliant, alternative (reclining seat with footrest) can be installed, for a total cost of about \$5 million.
- FAA also made a **\$175 million** miscalculation in the operational costs of the rule relating to pilot time, based on a the agency's mistaken information as to the percentage of air cargo pilots who are line pilots versus reserve pilots or those on leave.
- FAA stated that it expects that carriers will achieve additional savings from the projected costs, as carriers gain additional operating experience under the new rules, but FAA failed to quantify this or account for it qualitatively in assessing costs and benefits.
- FAA also allows carriers to propose alternative ways to achieve an equivalent safety, via a Fatigue Risk Management program, but provides no consideration of the costs carriers could save by this approach.

Disproportionate Rigor

- FAA went to the ends of the earth to try to find costs (e.g., ancillary costs related to retrofitting aircraft with rest facilities, including lost value of aircraft while out of service and increased fuel burn due to carrying the extra weight of the rest facilities (all of which turned out to be misguided)).
 - But FAA did not evaluate potential benefits, such as avoiding more than one accident, the potential for passengers to be on board cargo aircraft, injuries and loss of life on the ground, or avoiding the loss of urgently needed cargo, such as medical supplies.
 - This disproportionate consideration of the breadth and depth of costs versus benefits are not hallmarks of an objective, professional benefit cost analysis.
- With the assistance of our expert David Berkey, the IPA has produced an alternative BCA. I would like to turn it over to my co-counsel Tom Devine to outline our work.

Berkey/IPA Alternative Benefit Cost Analysis—Thomas Devine

- Following the applicable guidance and using more realistic assumptions and estimates, including sensitivity analyses and a rough, but still conservative figure for difficult to quantify benefits, we estimate that:
 - the high case benefits would exceed costs by over \$400 million, and

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- the mid-point between the low and high case benefit scenarios would exceed costs by over \$90 million.
- Using the mid-point between the high and low benefits cases is an accepted and traditional measure of costs and benefits.

FAA Failed to Comply with its Congressional Mandate

- Congress directed FAA to enhance air safety by issuing new rules on pilot duty and rest based on the best available science.
- Science tells us that back of clock flying across multiple time zones with long duty periods poses a great risk of inducing fatigue.
- FAA admits that cargo operations are characterized by these factors.
- FAA admits that existing flight/duty time rules do not adequately protect against the risk of fatigue-based accidents.
- FAA exempted cargo operations from the Final Rule, leaving them subject to the existing rules.
- FAA thus failed to meet its legal mandate to improve safety by developing rules to combat pilot fatigue based on the best available science.
- FAA's only reason for excluding cargo operations is that the costs of compliance for cargo operators exceed the societal benefits, based on past accident history.
- Today, IPA has carefully demonstrated that it is in the nation's interest, economic and otherwise, to include all commercial pilots in this important safety rule.