

January 31, 2014

Adam Giraldes
Aviation Safety Inspector
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Via Email: Adam.Giraldes@faa.gov

Dear Mr. Giraldes,

The National Business Aviation Association submits the following comments for FAA's review and consideration in response to the posting of the draft version of FAA Advisory Circular 120-27F, Aircraft Weight and Balance Control, on the FAA Flight Standards Service Draft Documents web page.

NBAA represents the interests of over 10,000 Member companies within the business aviation community. NBAA Members include Part 91, Part 91(K), Part 125 and Part 135 operators who will be significantly and negatively affected by the changes proposed in the draft version of the advisory circular.

The aircraft operated by NBAA Member companies are as diverse as the needs that implore these companies to utilize aircraft in furtherance of their businesses. For example, there are companies within NBAA's Membership that operate aircraft commonly used in airline service (CRJ, ERJ, Boeing 737, Beech 1900, etc.) configured similarly to airline aircraft with overhead bin space that these companies use as corporate shuttles to transport employees between company locations. On another end of the spectrum of the Advisory Circular's current applicability, there are Part 25 aircraft with just a handful of passenger seats and perhaps even fewer passengers regularly on board. Nevertheless, the feedback received from the range of operators on the changes proposed to the advisory circular was consistent: the removal from Advisory Circular 120-27 of FAA published standard average weights and segmented passenger weights constitutes a significant burden to thousands of operators in NBAA's Membership.

Unintended Consequences for Business Aviation

NBAA believes that the problems that the FAA has presented as the impetus for this change really stem from concerns in how the Part 121 carriers are executing their approved weight and balance programs. For example, the new version of the advisory circular includes language referencing changes in business plans, such as charging for checked and/or carry-on bags. As business aircraft are operated in furtherance of businesses of the aircraft owner/operator carrying employees and guests of the aircraft owner/operator, or business aircraft are operated by charter companies under Part 135 that are charging for the flight as a whole, not per passenger or per baggage item, these scenarios simply do not apply.

It is NBAA's recommendation that FAA and business aviation operators identify a unique, appropriate solution to address weight and balance in business aviation operations. NBAA believes that a solution can safely continue to incorporate FAA-published standard average weight figures for passengers and baggage or segmented weight figures for passengers and baggage. Business aviation is a very dynamic environment where the use of standard passenger weights and standard bag weights, with caveats for additional baggage, allows for more efficient operations when planning fuel loads.

Challenges with Passenger Weight Compliance

Feedback received from NBAA Members indicates that the changes, if implemented as proposed, would create significant challenges with compliance. The FAA expressed concerns with the NHANES data perhaps not being entirely indicative of the traveling public. While NBAA may agree with FAA assertions that business aviation travelers may be a healthier population than the population of the NHANES data, NBAA is of the position that such statistical variation in average/segmented passenger weights derived

from the NHANES data compared to actual passenger weights would be significantly less than the likely statistical variation that would be introduced in using asked passenger weights compared to actual passenger weights for the aircraft.

NBAA believes that it is simply human nature to report when asked one's ideal weight or a weight between one's ideal weight and his/her actual weight as opposed to one's actual weight. While there may be some scenarios whereby a pilot could reasonably ascertain that the weight reported by a passenger was grossly understated, NBAA believes the potential is high for scenarios where a reasonable person would not be able to identify a response that is under the actual weight by an amount that FAA inspectors would reasonably expect an operator to identify or by an amount that constitutes the statistical delta between the averages derived from the NHANES data and statistical averages that would be derived from having actual passenger weights. In other words, NBAA believes that pilots are well trained in flying aircraft; NBAA does not believe that pilots are adequately trained to accurately identify passenger weights.

Publication of the standard average and segmented weight figures by FAA set a standard with which operators can follow. With a single, published standard, a level playing field for operators is established. Operators forced to use asked weights, for example, risk penalty of clients believing this operator's pilot is rude and/or inappropriate to ask for a weight and then opting to take their business to another carrier that has the passenger numbers to complete a survey. As well, new operators have a standard with which they can quickly comply.

Challenges with a Survey

First and foremost, business aviation operators often have only a handful or fewer passengers on any flight. This reality means that most business aviation operators not operating a corporate shuttle will require approximately 10 years to collect enough data to complete the survey. The allowances for smaller sample sizes may reduce that time and data points required, but, by appearances of the statistical formulas, only if the passenger weights are significantly homogeneous.

NBAA proposed to operators the idea of operator co-ops to conduct the survey and publish average weight figures. While that may be a viable option, NBAA remains concerned based on FAA statements during the FAA/industry meeting that such co-ops still defy the concerns with the use of average passenger weights for which the FAA is initiating the removal of average weight figures.

During the conversations with operators, it was noted that the Health Insurance Portability and Accountability Act (HIPPA) may have implications on the collection, retention, and use of this health information in a survey, especially if third parties are involved in the collection, retention, and use of the data.

The requirements outlined in the advisory circular to conduct a survey are very airline-centric. NBAA notes that the vast majority of business aviation operators do not operate "within the secure area of the airport" in the same sense that airlines do.

Cost Implications / Drivers Behind the Change

During the FAA/Industry meetings where the reasons behind this change were discussed, it was noted that the FAA is lacking the resources to periodically update the standard average and segmented weight figures from updated NHANES data. While NBAA can understand this challenge faced by the FAA, NBAA notes that by removing these average weight figures and forcing operators to have surveys to ascertain standard average weight figures, the resource burden is shifted from headquarters resources to FSDO and CHDO resources and, arguably, increased as each FSDO/CHDO will have more to review and approve when it comes to weight and balance. As well, decentralizing and increasing the number of operators seeking weight survey authorizations is bound to decrease standardization, a problem the industry has worked for years with the FAA to solve.

Risk Management Process and Safety Assurance System

NBAA in principle supports this requirement, however due to the limited details applicable to Part 91, Part 91(K), Part 125 and Part 135 operators, we are concerned for the very likely potential of differing "requirements" as interpreted by each FSDO/CHDO and inspector.

Associated Issues

NBAA is also concerned by the differing timelines associated with the release of this version of the advisory circular and the release of associated FAA inspector guidance updates in FAA Order 8900.1 and LOA/MSpec/OpSpec template updates in WebOPSS which incorporate by reference sections of Advisory Circular 120-27E that will not exist in Advisory Circular 120-27F. Unless there is an appropriate period to comply with the new version of the advisory circular and co-timed updates to the inspector guidance and associated LOA/MSpec/OpSpec templates, operators are being set up to be non-compliant. Such a situation is simply unacceptable to NBAA.

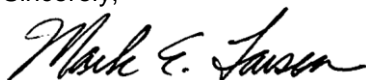
Additionally, NBAA notes a fundamental difference between the crew and passenger weight figures as specified in the advisory circular and those crew weight figures specified in aircraft certification rules. Many of the aircraft certification standards still reference 170 pounds. This comes into play with some aircraft flight manuals and weight and balance calculators in aircraft FMSs. NBAA has some concern that operators continue to rely on the 170 pound figure, which may not be appropriate.

Recommendations

1. Because of the limited number of passengers on business aviation flights, and the considerable challenges that conducting a survey entails, NBAA Members have indicated that they would rather accept a heavier "average" or "segmented" weight than have to comply with a survey.
2. NBAA recommends that FAA continue to periodically analyze and report standard average and segmented weight figures as it has done for years.
3. In addition to recommendation 2, NBAA recommends that the following options be permitted for passenger weights:
 - a. Actual, including asked, weight of passenger as specified in the draft
 - b. Weight indicated on the passenger's drivers license plus 10 pounds as a form of actual, asked, weight.
 - c. Pilot estimate of weight plus 10 pounds, even if a possible training program is required
4. In addition to recommendation 2, NBAA recommends that the following options be permitted for baggage weights
 - a. Actual weight of baggage from a scale
 - b. Average weight of baggage from a survey

Thank you for the opportunity to review and comment on the draft version of FAA Advisory Circular 120-27F, Aircraft Weight and Balance Control. NBAA would welcome an opportunity to meet with FAA to discuss these comments and proposals further, so as to ensure that any final version of the advisory circular includes a workable path forward for aircraft weight and balance computations by business aviation operators. If I can provide any further information to you, please contact me at (202) 737-4473 or mlarsen@nbaa.org.

Sincerely,



Mark E. Larsen
Senior Manager, Safety & Flight Operations