## Safety Regulation Group Group Director Safety Regulation



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02 June 2011

Dear Mr Gifford

Thank you for your further letter of 15 April 2011, concerning the weight and volume of cabin baggage.

In my letter of 25 October 2011, to which you refer, I set out in detail the applicable regulations that govern the stowage, weight, volume and distribution of cabin baggage. The Civil Aviation Authority (CAA) believes that if the regulations are fully adhered to they provide a comprehensive system to ensure an appropriate level of safety. As I also mentioned in my letter, the CAA Flight Operations Inspectors are tasked to ensure that operators' manuals meet the requirements of EU-OPS and to check that the correct procedures are implemented.

To illustrate the above point, and because you mention them by name, I think it would be helpful to describe the work we have undertaken with easyJet.

The operator had decided that, for their type of operation, controlling hand baggage allowance by weight was unmanageable for two reasons:

- Passengers often not declaring all hand baggage at check-in (even before the introduction of internet check-in) or adding items, such as duty free, to bags approved as hand baggage after check-in.
- There being no ability in most airports to operate scales at the boarding gate nor would it be practical to do so as part of the boarding process.

However, a volumetric policy offers advantages in being relatively simple to manage and control, and allowing visual checks of most baggage items with volumetric gauges only needing to be utilised on items considered (based on visual inspection) to be close to policy limitations.

The operator increased the notional weights associated with hand baggage by 5kg per passenger (an allowance of 11kg per passenger rather than the EU-OPS standard of 6kg) which is included within all loadsheet, payload, and aircraft performance calculations. The increase of 5kg was based on FAA recommendations and the CAA was engaged in this amendment. Calculations were based on a density of 175kg/m³. To put this in context, Boeing use a standard density of

159kg/m<sup>3</sup> and several other airline studies have used density figures lower than the 175kg/m<sup>3</sup> used by easyJet.

Extensive analysis, supported by live trials, has been conducted in relation to overhead bin limitations. This has consistently demonstrated that based on typical passenger hand baggage, and even at full loads, the weight of baggage stowed in the overhead bins remains within stated design limitations. Such analysis and trials have been conducted for various baggage allowances and passenger behaviours. This also reflects the findings the CAA made in its own trials where we found that overhead bins are likely to 'bulk out' because their physical capacity will be reached before the placard weight limit.

In 2009 EASA published an extensive survey of passenger and baggage weights covering multiple airports and airlines. The survey validates the assumptions made by easyJet in relation to passenger and hand baggage weights.

However, while we believe that the issues you have raised are adequately addressed by all operators, our oversight (ramp checks and cabin flight inspections) has revealed concerns about cabin clutter, especially during the boarding phase. For example, are pressures for on-time departures leading to doors being closed before it has been established that all the carry-on baggage can be accommodated in the cabin? The best way forward is currently under consideration, but it is likely that the process will result in the publication of a Safety Notice to all UK operators that will be followed-up by targeted inspections. We will also send our findings to EASA for their consideration for wider dissemination. Again, this is an example of the system – regulations, operators' procedures, CAA oversight – delivering a safe outcome.

I hope I have been able to reassure you that the CAA does take very seriously the issues raised in your letter and works closely with industry to ensure that the safety rules are properly applied.

Yours sincerely

Gretchen Burrett

Group Director Safety Regulation

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