Dear Captain Williams,

Thank you sincerely for your patience regarding your query to Dr. Ganz about stowage bins.

After you shared the letter with me, I redirected it to our aviation safety community for analysis. On behalf of John Tubbesing, our director of Payloads Engineering, I am happy to share the answer with you.

Dear Captain Williams,

Thank you very much for your letter dated July 5, 2010, requesting clarification about the design load limits of Boeing designed overhead stowage bins. I share your interest in the safety and welfare of passengers and cabin crew and appreciate your candor.

In your letter, you note that changing passenger habits and growing commercial pressure on airlines have increased the volume of carry-on baggage placed in stowage bins. We are also concerned about these changes and closely follow trend data to determine the actual industry impact. Boeing makes use of trend data to validate the design requirements we use for each new bin design. For example, over the past 15 years, we have witnessed the introduction and increased use of roll-on bags by the flying public. This has significantly altered the size and shape of our new bin designs, which can now accommodate larger roll-away bags. In addition, Boeing has developed and certified a new lift assist mechanism to address concerns regarding the need to raise and latch these higher weight bins. This brand new design is part of the 737 Boeing Sky Interior, first delivered to FlyDubai in October 2010.

The 1989 British Midland incident you reference had a significant impact on the fundamental structural design philosophy Boeing follows with overhead stowage bin design. Though Boeing has always strived for designs that are safe in application, this improved design philosophy ensures that all Boeing bin designs have detail solutions that are demonstrated to be safe in application, as well as having a substantial margin of safety given the size of each bin, and the requirements specified in the Federal Aviation Administration's Code of Federal Regulations, Part 25. The structural capability of each Boeing designed bin can support loads in excess of the placarded maximum load limit for each bin. The result has been an improvement in structural integrity of the bins across all Boeing models as evidenced by recent events, such as the Jan, 2008 British Airways 777-200ER incident at Heathrow where the bins were found to be in excellent condition after the event. Other, more recent, incidents serve to similarly demonstrate the structural qualities of the 737 overhead stowage bins, though details are omitted since these incidents are still under formal investigation. In spite of this improved overhead bin design philosophy, which results in improved structural capability, Boeing recommends that airline operators strive to manage carry-on size and weight, and operationally (Federal Aviation Administration's Code of Federal Regulations, Part 121) they are required to do so.

Thank you again for your thoughtful observations. Boeing will continue to evaluate trend data, as it pertains to overhead stowage bin design, in an effort to develop

efficient design solutions that improve safety for operating crews and the flying public.

Sincerely,

John D. Tubbesing
Director
Payloads Engineering
Boeing Commercial Airplanes

Again, my thanks for your patience and interest.

Best regards,
Julie

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