BY RICK DARBY

Bin There, Done That

A survey of flight attendants reveals safety concerns about passenger carry-on baggage.

arry-on items falling from overhead storage bins struck about a third of responding flight attendants at least once during a one-year period. This was among the findings of a membership survey by the Association of Flight Attendants–Communications Workers of America (AFA-CWA). Most of the encounters resulted in relatively minor injuries in the "bruise" and "bump" categories, but "sprain," "cut," "puncture" and "abrasion" also were noted, as was one incident of "concussion."

In comments collected in a qualitative part of the survey and supplied to *AeroSafety World*, some of these flight attendants said that the airline charges for checked baggage instituted in recent years had motivated passengers to bring more, and heavier, carry-ons into the cabin than were formerly allowed.

"It has gotten out of control," said one flight attendant. "I believe that the airline's policy of charging for the first checked bag has contributed to this increase. Although the *quantity* of bags passengers bring aboard is being monitored much more closely, the *size* and *weight* are not. Also, passengers are combining bags into a larger carry-on and then holding up boarding by 'disassembling' the carry-ons into separate pieces once aboard in order to stow them."

The survey was conducted via e-mail using a sample of AFA-CWA members. From an original list of 25,359 members, 20 percent from each airline were selected randomly. In all, 1,283 completed surveys were obtained and analyzed, a 25 percent response rate.

Among the reported injuries to flight attendants caused by falling carry-on items, 76 percent were categorized as "bruise, bump" (Figure 1). At 45 percent, the combined "abrasion, scratch" category was in second place.

Anatomical sites of those injuries varied considerably (Figure 2, p. 50). The combination category "arms, elbows, forearms, hands, fingers" accounted for 71 percent of those injured. Only "organs other than the brain," among the listed response choices, escaped entirely.



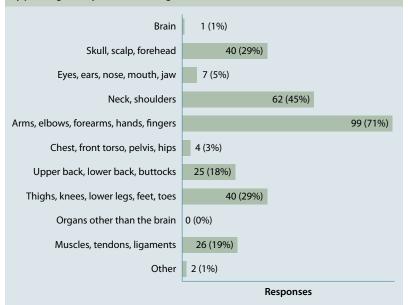
Notes: Data are from a written survey of 1,283 flight attendants on U.S. air carriers. Percentages are based on the number of respondents who answered "yes" to a question about whether they had experienced any of the types of injury listed. A respondent could report more than one category of injury.

Source: Association of Flight Attendants-Communications Workers of America

Figure 1

Anatomical Sites of Injuries From Falling Carry-On Items

What parts of your body were injured during the past 12 months from being struck by passenger carry-on items falling out of overhead bins?



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Figure 2

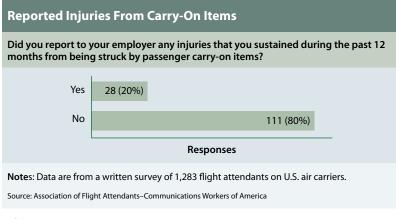


Figure 3

Eighty-two percent of the flight attendants injured by falling carry-ons lost no workdays as a consequence, analysis showed. However, 13 percent were out of work between two and 20 days. Three percent lost more than 20 days of work.

Data showed that 20 percent of those who said they had been hurt by "being struck by

passenger carry-on items" reported the event to their employer (Figure 3). In the comments, this lack of reporting was often explained by expressing the belief that it would have been useless or counterproductive.

"Most injuries are minor or the pain does not show up for several hours later," said a respondent. "It is usually too late and/or not worth the time and effort to fill out paperwork, nor the expense of going to the doctor, but you ache at the end of the day."

Another said, "The reason I did not report my injuries from carry-on-related incidents is that I had previously sustained a serious injury to my neck/shoulders, so the injuries/strains/etc. [that] I'm having now seem to be increasing/reinjuring the previous neck injury. I do miss work due to my neck (bulging discs/two pinched nerves) and have missed work since the carry-ons have gotten out of control; however, I did not file [for] worker's compensation for my neck since I knew they'd hassle me over it. I take my own time off."

Other ways are readily available for being injured in connection with overhead bins besides falling contents. They include lifting carry-ons, loading them into the bins, unloading them, and shifting bags around to get them all to fit. Among the 81 percent of respondents reporting injuries from these activities, 58 percent placed them in the "sprain, strain, tear" category (Figure 4). Other commonly reported injury categories were "bruise, bump" and "abrasion, scratch." Although rare, cases of "concussion" and "fracture, dislocation" were said to have occurred.

"Passengers think it is part of the crew's job to lift their bags for them," a flight attendant said. "Bags keep getting larger and heavier, and we can't possibly lift or position multiple bags every day. It is no surprise that many flight attendants have back/shoulder/arm/neck injuries."

Another said, "This is the hot topic of discussion, as it seems flight attendants' focus on safety and security of passengers during boarding has been shifted to handling passenger carry-on items: repositioning, bringing bags to the front of the aircraft and giving the passengers a free-checked-bag opportunity, which encourages

them to keep repeating it, instead of checking [the bag] and paying at the ticket counter, thus making a mockery of airline policies."

Respondents who reported injuries from lifting, placing and maneuvering items into overhead bins most often described their injuries as being located in "arms, elbows, forearms, hands, fingers"; "neck, shoulders"; or "upper back, lower back, buttocks" (Figure 5). Other injuries were fairly evenly distributed among other parts of the body.

"While I did not sustain any major injuries, I definitely have been left with lower back pain after assisting with bags," a flight attendant said. "Bumps, bruises and scratches are almost a daily occurrence on the job," said another.

"For us shorter folks it is even more strenuous having to spin, slide, scoot and lift bags into the overhead bins," a flight attendant reported. "The weight of the bags has increased and more people are asking or *telling* us to find a place for a bag and lift it up there for them."

Lifting is only part of the potential injury scenario. Bags of various sizes and configurations often need to be rearranged in the overhead bins to obtain maximum storage use.

"Baggage has taken top priority, because if I don't stay proactive on rearranging bags and placement of bags, we will have a delay and I will be called by a supervisor upon landing and asked to explain the cause of the delay," commented a flight attendant. "I have noticed recent pain in my shoulders, neck and elbow from trying to move and lift large bags in the overhead compartments."

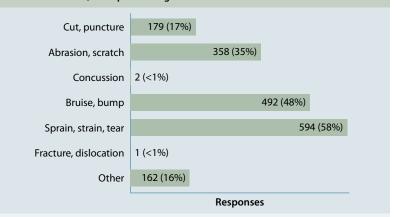
The wear and tear on flight attendants from lifting and arranging carry-on items in the bins usually resulted in no lost workdays (Figure 6, p. 52). For some, however, the time-out was significant. One hundred twenty-six respondents said they had lost from two to 20 workdays, and 24 said that associated physical symptoms cost each of them more than 20 workdays in the one-year study period.

Few saw any reason to report this type of injury to their employer — 8 percent of those who claimed injury did so.

Tripping over passenger items that were in the aisle or protruding from under seats was

Types of Injuries Related to Overhead Bins

What types of injuries did you experience during the past 12 months from opening or closing overhead bins, lifting/placing items into overhead bins, removing items from overhead bins, or re-positioning items in overhead bins?



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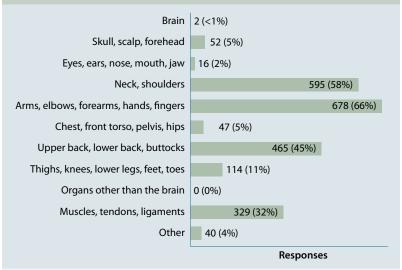
Percentages are based on the number of respondents who answered "yes" to a question about whether they had experienced any of the types of injury listed. A respondent could report more than one category of injury.

Source: Association of Flight Attendants-Communications Workers of America

Figure 4

Anatomical Sites of Injuries Related to Overhead Bins

What parts of your body were injured during the past 12 months from opening or closing overhead bins, lifting/placing items into overhead bins, removing items from overhead bins, or re-positioning items in overhead bins?



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Source: Association of Flight Attendants–Communications Workers of America

Figure 5

another reported hazard. Injuries from carryons impinging on the aisle resulted in injuries to 37 percent of respondents. The threat was judged to be particularly insidious because, as one flight attendant pointed out, those working the service carts were often stepping backward and could not see the objects.

Most injuries from tripping were in the "bruise, bump" category, but as with the other causal factors, there were rare serious injuries that included four cases of "fracture, dislocation"; 31 of "cut, puncture"; and one of "concussion" (Figure 7).

"Passengers do not want to place small items beneath their seats because it impedes their leg room, and if they do place items beneath their seats, they almost always place their limbs in the aisle," a flight attendant said. "I have tripped over many bag straps [and] pieces of luggage that passengers have just left in the aisle because there is no space."

Said another, "It is more than 12 months [since the accident], but one bag out in the aisle caused me to trip in 2005 and I was off work 2.75 years, three hip surgeries and the promise of a new hip due to it. Changed my life in a very bad way. Pain every day."

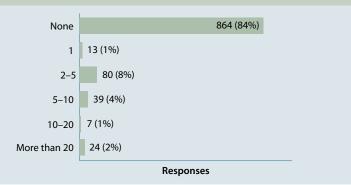
The survey found that carry-on injuries were not related only to the handling of passengers' items in overhead bins or tripping over items protruding from under seats. Twenty-two percent of respondents said that they had been injured as a result of carry-on items that were in the cabin but not in the overhead bin. Of the injured, 66 percent said that they had suffered "sprain, strain, tear" (Figure 8) Next in frequency were "bruise, bump" — reported by 42 percent of the sample — and "abrasion, scratch."

"I have never had so many bruises on my hands [since the difficulty of closing bins has increased]," was among the written comments. "It has added to the advancement of my carpal tunnel [syndrome] and sprained wrists just trying to close the overheads."

The survey also asked about the phases or conditions of flight in which flight attendants

Lost Workdays Related to Overhead Bins

How many days were you away from work as a result of injuries sustained during the past 12 months from opening or closing overhead bins, lifting/placing items into overhead bins, removing items from overhead bins, or re-positioning items in overhead bins?



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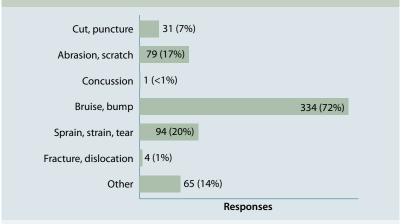
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Source: Association of Flight Attendants–Communications Workers of America

Figure 6

Types of Injuries From Tripping Over Carry-On Items

What types of injuries did you experience during the past 12 months as a result of tripping over passenger carry-on items that were in the aisle or protruded from under seats?



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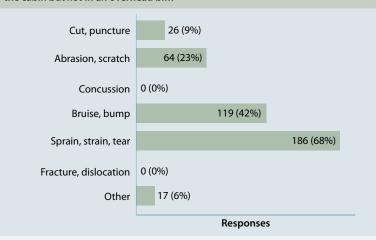
Source: Association of Flight Attendants-Communications Workers of America

Figure 7

had witnessed falling items during the previous 60 days. The study period of 60 days rather than one year was chosen because respondents were

Types of Injuries From Handling Carry-On Items

What types of injuries did you experience during the past 12 months as a result of handling (i.e., lifting, carrying, stowing, etc.) passenger carry-on items that were in the cabin but *not* in an overhead bin?



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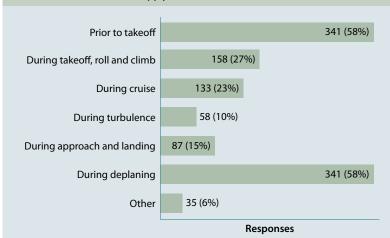
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Source: Association of Flight Attendants-Communications Workers of America

Figure 8

Phases of Flight and Flight Condition, Falling Carry-On Items

During the past 60 days, on any flights that you were either working or deadheading, during what phases of flight have item(s) fallen from one or more overhead bins (check all that apply)?



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Source: Association of Flight Attendants-Communications Workers of America

Figure 9

expected to have less-clear long-term memories of these events than of personal injuries.

Understandably, items tumbled from overhead bins most commonly prior to takeoff and during exiting following a flight (Figure 9). But 27 percent of respondents reported bin item spillage during the takeoff roll and climb, and 23 percent said that it had occurred during cruise other than turbulence encounters, which was a separate category. In reply to a following question, 30 percent of the flight attendants who observed falling items reported one or more passenger injuries.

"I am greatly concerned that overhead bin weight limits are not being adhered to," a flight attendant said. "I have seen overhead bins pop open upon takeoff, and during an emergency or hard landing, it could be very hazardous."

Although it did not figure prominently in the survey comments, some flight attendants mentioned that carry-ons ejected from bins could hinder an emergency evacuation. Said one: "I would hate to have an emergency where we had to evacuate the airplane, because there is so much luggage on board I think it will slow down the evacuation time."

Many flight attendants who responded to the survey offered suggestions for reducing the problem of injuries caused by carry-on items. The most frequent were that:

- Airlines should enforce size and weight limits for carry-ons; and if they fail to do so,
- Uniform carry-on size and weight limits should be applied to all airlines, and a government agency such as the Transportation Security Administration should enforce the rules; and,
- Rather than charge passengers for checked baggage, airlines should allow baggage stowed in the hold to fly free and instead charge for carry-ons, or for carry-ons greater than strict size and weight specifications.

"If passengers were allowed to check bags for free and charged to bring items on board, the baggage problem would solve itself," a survey respondent said.