20 seconds can save your life: Fasten seat-belt

Seat belts are not just decorative accessories but necessity that guarantees your safe travel. ■ by Wg Cdr DP Sabharwal (Retd.)

Six people on board Jet Airways flight suffered injuries when the aircraft encountered air turbulence while flying at about 30,000 ft. The aircraft jolted thrice from side to side and the food spilled all over the cabin. The injured people were not wearing seat belts as per the fellow passengers.'

The incident occurred when the aircraft was flying from Dammam, Saudi Arabia to Thiruvananthapuram.

This was not the first time that an aircraft flew through air turbulence, a phenomenon that occurs due to the movement of air mass when conventional clouds are not present. It is caused when different blocks of air, moving at widely different speeds, meet. The atmospheric region where such turbulence often exists is at altitudes ranging from 23,000 to 39,000 ft. Such turbulence appears without warning and is usually impossible to be noticed with the naked eye and is very difficult to detect with conventional radar.



The Air Traffic Control however alerts the commanders of aircraft when they come to know about it from other aircraft flying on that route. When so warned, the commander either ascends or descends from the allotted flight-path to avoid turbulence and immediately switches on 'fasten seat-belts' sign.

In many other flights as well, passengers on board an aircraft have been injured for not wearing seat-belts, which are designed to keep the person fastened with the seat that is fixed to the floor of the aircraft. Thus when the aircraft flies through turbulent weather and is jostled up and down, at times like a small toy, loose things, including individuals in their seats but not fastened with the belts, too are thrown around. In such cases, an individual hits other parts of the aircraft or even passengers, and injuries are bound to happen.

There have been instances when people have been injured in aircraft accidents while the aircraft was still on ground just because seat-belt had not been in place. A Boeing 777 of Asiana Airlines crashed during landing at San Francisco in July 2013. Out of 307 people on board, 181 were injured, while three died. One of them died from being thrown across the cabin when tail section sheared-off after hitting an obstacle.

Another person fell out of the aircraft and was run over by the rescue

vehicle. Both of them were not wearing seat-belts. On the contrary, three flight attendants thrown onto the runway escaped with minor injuries as they were still strapped in their seats.

Equally important in cars

When discussing the recent airlines incident, a friend of mine remarked, 'Well, I will never be subjected to such fatalities since I never travel by air.'

'You are mistaken, my friend. The fact is that you are equally prone to be injured and at times even fatally in a car as well' I said. When he looked at me with disbelief written on his face, I told him the scientific fact: If you are without a seat belt and travelling in a car at a speed of about 50 kmph and are involved in a collision with another vehicle, you will be thrown forward with a force that is likely to be 30-60 times your body weight depending on the size and weight of the car.

And with that force when you hit the wind-shield or any other part of the car, your face is going to be smashed beyond recognition. Such an accident can cause brain injury, loss of limbs or loss of life as well.

Seat belts are the best protection in any road accident. As per published data, wearing a seatbelt as a driver or front seat passenger is estimated to save over 9,500 lives every year in the United States. It is a sad commentary that only 68 per cent of the motor vehicle occupants put on seat-belts.

We do not have the figures for our country, but in USA about 40 front seat passengers are killed each year simply because they are hit by a rear seat passenger not wearing a seatbelt!

When seat belt saved lives

Instances in the past where seat-belts have prevented what would have been serious causalities.

- In 1973, a window shattered on a National Airlines aircraft DC-10, and the passenger sitting directly next to it was blown out of the aircraft since his seat-belt was not fastened properly and was loose and slack. The passenger next to him was not sucked-out because of his tightened seat-belt.
- An enormous hole opened up in the roof of a Boeing 737 flown by Aloha Airlines in 1988 as a result of metal fatigue. The passengers seated directly beneath the hole suffered some cuts, concussions, and broken bones. The only person that died was an air hostess who got sucked out as she was standing in the aisle and was therefore without any seat-belt.
- In 1990, one of the cockpit windows blew out of a British Airways BAC-111. The pilot, who had loosened his seat-belt, was sucked halfway out of the window. He saved himself by grabbing the controls with his feet, and the flight attendants managed to hold him steady during the 20-minute emergency landing carried out by the co-pilot who remained fastened to his seat.



- A five-square-feet hole opened in the roof of a Southwest Airlines as it was cruising at 36,000 feet. Passengers heard an explosive noise and felt air being sucked out of the cabin. The pilot landed the aircraft safely and there were no major injuries. No one was blown through the hole because everyone had fastened the seat-belt.

The single largest group contributing to this high death rate is the male in the age group 16-25 who are basically high risk-drivers, the additional factors being drunken-driving and over-speeding.

In our country we have law which requires every occupant of front seats in a vehicle to wear a seat-belt. In certain cities like Chandigarh, Delhi and Mumbai, the traffic police are strict about it and in fact collect large revenue as a result of fines from defaulters.

Presently there is no law for the rear seat passengers to wear the seat belt. We do not have the figures for our country, but in USA about 40 front seat passengers are killed each year simply because they are hit by a rear seat passenger not wearing a seatbelt!

It is fact that no amount of legislation can help in forcing people to adhere to the rules. It is the education and self discipline that can prevent unnecessary and avoidable injuries and loss of life.

Next time you occupy a seat in a car or an aircraft, look at the seat-belt with a little more respect and put it to use. It might help you to survive and you could perhaps have a wonderful tale to tell at a later date. ■