



FLIGHT SAFETY FOUNDATION

# CABIN CREW SAFETY

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*For Everyone Concerned with the Safety of Flight*

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## Aviation Safety Programs Should Boost Occupational Safety Awareness in the Cabin

*Air carriers should consider implementing comprehensive occupational safety programs that can, in the long run, reduce losses and increase revenues.*

by

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Insurance industry accident rate statistics strongly suggest that there is a need for the development of more comprehensive occupational safety programs. The U.S. Federal Aviation Administration (FAA) generally refers to safety as it relates to flight operations. Safety, however, should be an attitude that contributes to the physical well-being of all individuals involved in or contributing to flight operations in an aircraft cabin environment.

From a safety engineering perspective, every person who is employed by an airline, government agency or an airline sub-contractor and is required to work within an aircraft cabin environment even for brief periods should be considered an "extended" member of the cabin crew. This would include flight crew, flight attendants, aircraft mechanics, passenger service agents, load masters and cargo handlers for freight operations, food service personnel, emergency response personnel, aircraft cleaning crews, baggage handlers and safety engineers. As important as safe flight operations are, continued safety awareness must be given to occupational safety hazards faced by people who work behind the flight deck.

Such a definition is broader than is commonly used. But its usefulness becomes apparent with a better understanding of what occupational safety is and what it should entail.

### Regulations Often Do Not Directly Address Occupational Safety Issues

Under Federal Aviation Regulations (FAR) Part 121, flight attendant initial and transition ground training are discussed at length, but references to safety under this section focus primarily on proper and safe use of cabin equipment, aircraft familiarity, emergency assignments and being able to handle "deranged persons or other persons whose conduct might jeopardize safety." Occupational safety concerns of cabin crew workers are not specifically addressed. Because the FAR are primarily concerned with safe flight operations, these regulations do not provide specific guidelines for the occupational safety of the cabin crew.

The word "safety" can be found in the context of almost everything aviation people do. One could assume that perhaps aviation people are the safest people in the world. Unfortunately, the current cost of workers' injury compensation insurance for airlines suggests otherwise. Workers' compensation insurance is required for all air carriers with operations bases in the United States. It is paid for by the employer and is designed to cover worker medical bills and salary for lost-time work injuries suffered on the job.

A major U.S. air carrier on average pays \$20 million a year in premiums for workers' compensation insurance. Losses can total \$19 million yearly, even when there are no fatalities (which can add millions to the total). While fatality losses are rare, about 7 percent of workers at an airline employing 35,000 people are injured each year and receive compensation averaging \$3,745.

For more than half a century, airlines have followed the doctrine (as outlined by government regulations) that the primary focus of aviation safety is flight safety. The FAA, for example, does not require formulation of company-wide occupational safety programs to protect all employees.

Each commercial aviation operator should establish and monitor its own occupational safety program. Ideally, a person should perform his or her duties in such a fashion that the person remains uninjured. If this were so, flight safety and occupational safety would not be issues. But people are not perfect. And without clearly defined information and procedures to follow, workers get hurt.

### **Accountability, Responsibility Are Key to Effective Programs**

Commercial aviation operators must take decisive steps to adequately protect cabin crew workers and company assets. Operators should consider development of an all-inclusive occupational safety program whose hallmarks are accountability and responsibility. The work environment must be analyzed and the hazards identified. These hazards should then be addressed and remedied.

Flight crew and flight attendants are necessary cabin crew workers. How then do others whose work is performed in the cabin fit into this equation? At issue is the cabin environment itself, which has inherent hazards that may adversely affect any person functioning in or around it. The following is a list of injuries (ranked by frequency) commonly cited by cabin crew workers in workers' compensation insurance files:

- Back pain, back strain, serious back injury
- Struck by, struck against
- Slips, trips, falls
- Cuts, lacerations, abrasions
- Bruises, sprains, repetitive motion injuries
- Hearing loss
- Eye injuries

- Broken bones
- Skin and internal injuries from hazardous materials
- Other miscellaneous injuries
- Fatal injuries

The actions of all cabin crew workers can and often do affect all persons in the cabin environment (including passengers). All cabin crew workers, regardless of whether or not they perform airborne duties, must be considered in the formulation of any successful occupational safety program. Catastrophe does not differentiate between pressed flight uniforms and coveralls.

Cabin crew workers are exposed to numerous situations where injuries can occur. The following activities and environments commonly encountered during normal duties may contribute to the injuries listed above:

- Lifting, carrying, pulling, pushing
- Operating ramp vehicles, jet ways, galleys
- Walking on wet surfaces, uneven deck coverings
- Exposure to aircraft metal, tools, passenger service items
- Dealing with ergonomic design, aircraft seating
- Exposure to jet engine and auxiliary power unit (APU) noise
- Handling hot liquids, exposure to chemicals and petrol, oil and lubricants (POL)
- Food service trucks, doors, hatches, aircraft stairs
- Handling or exposure to cargo contents
- Numerous miscellaneous or unusual exposures
- Remote exposure to inflight disaster, aircraft ground fire

The accident types and percentage rates are surprisingly similar regardless of an airline's size (although the number of accidents and payment amounts are greater for larger operators). In a recent annual accident loss information report prepared for an airline with 400 employees, for example, data indicated that back injuries topped the list with 25 accidents and total workers' compensation payments of more than \$234,000. Machine-related injuries followed with seven claims and \$10,200 in costs; and injuries from falls and slips with six claims and total

payments of \$27,000. In all, the operator reported 58 accidents with total payments of \$290,000.

Following are several examples of accidents typically suffered by workers in aircraft cabin environments:

- A flight attendant suffered head and back injuries when she was struck by a food service container. A food service worker was attempting to push the cart into the aircraft galley when its wheels caught against the threshold, causing it to tip and strike the flight attendant. The flight attendant lost her balance and fell to the deck, injuring her back. Workers' compensation amounted to \$22,482.
- A cabin cleaner suffered elbow and back injuries when he fell down a Boeing 747 internal stairway. The worker either slipped or misjudged the steps and fell to the lower deck level. Loss payments totaled \$28,786.
- A food service worker suffered internal injuries and a fractured arm when he fell from a service truck platform. The worker was opening the aircraft door when he stepped off the improperly positioned service truck. Loss payments totaled \$25,403.
- A flight engineer suffered leg and back injuries after he slipped on motor oil during a preflight check. Loss payments amounted to \$4,625.

Some airlines still believe that a safe flight record amounts to a successful occupational safety record. By focusing on flight operations, these airlines may overlook the actual losses that they are suffering (reviews of occupational illness or injury records may remain compartmentalized in accounting department files or at the airline's insurance broker).

Some programs attempt to address occupational safety concerns in the cabin by trying to coordinate separate efforts among several departments. But such coordination efforts frequently become entangled in inter-departmental jurisdictions, making the programs difficult or impossible to function. For example, the following departments, divisions and contractors may each have their own unique agenda and some safety procedure to follow:

- Flight Operations Department

- Maintenance and Engineering Department
- Customer Services Department
- Cargo Division
- Inflight Services
- Station Operations Department
- Food Service Contractors

| Loss Information Report                          |                     |                      |              |
|--|---------------------|----------------------|--------------|
| Company  | Report Date         | Report Period        |              |
| 400 employees                                    | April 1992          | 02/28/91 to 02/28/92 |              |
| Accident Description                             | Number of Accidents | Total Incurred Cost  | Average Cost |
| Strain or injury by lifting or carrying          | 9                   | \$180,000            | \$20,000     |
| Strain or injury by pushing or pulling           | 16                  | 54,400               | 3,400        |
| Struck or injured by hand tool or machine        | 4                   | 6,800                | 1,700        |
| Struck or injured by moving part of machine      | 2                   | 2,400                | 1,200        |
| Struck against stationary object                 | 1                   | 1,115                | 1,115        |
| Fall from different level                        | 5                   | 25,000               | 5,000        |
| Fall or slipped                                  | 1                   | 1,900                | 1,900        |
| Cut, puncture or scrape by hand tool             | 3                   | 525                  | 175          |
| Miscellaneous cut, puncture or scrape            | 2                   | 350                  | 175          |
| Injury or strain by object handled               | 2                   | 320                  | 160          |
| Injury or strain by object handled by others     | 1                   | 160                  | 160          |
| Noise from aircraft engine — ears ringing        | 1                   | 600                  | 600          |
| Foreign body in eye                              | 3                   | 420                  | 140          |
| Fuel spray in eye                                | 1                   | 200                  | 200          |
| Caught in or between object handled              | 1                   | 12,000               | 12,000       |
| Miscellaneous motor vehicle or aircraft injuries | 1                   | 2,500                | 2,500        |
| Dust disease of the lungs                        | 1                   | 190                  | 190          |
| Dermatitis caused by chemical                    | 1                   | 140                  | 140          |
| Unknown  | 1                   | 650                  | 650          |
| Other miscellaneous injury                       | 2                   | 300                  | 150          |
| Fatal  | N/A                 |                      |              |
| Totals for all policy categories                 | 58                  | \$289,970            | \$4,999.48   |

- Fueling Contractors
- De-icing Contractors

All of these groups are directly involved in operations within or around the cabin environment. Their actions could adversely affect the occupational safety, health and welfare of all persons in the cabin. If they are not included in a coordinated and responsible occupational safety program, any operation being conducted within the cabin environment, no matter how remote it may seem, can be a weak link that leads to catastrophe.

A solution to ensuring occupational safety for cabin crew workers is easier than one might expect. Commercial airlines are quite possibly the most efficient of all true team efforts. Thus, it should be easier to positively

influence industry perceptions about occupational safety to better serve the worker in the aircraft cabin.

A well-designed aviation occupational safety program would include:

- A safety policy statement signed by the operator's chief executive officer
- Responsibility and accountability guidelines for senior, mid-level and station management (including supervisors and shift leaders)
- Bi-monthly safety inspections conducted by a facility safety committee
- Standardized accident reporting and investigation procedures
- Unit safety committees and a designated corporate safety officer
- Accident prevention training and safety and emergency procedures awareness
- First aid and emergency equipment training
- Briefings on specific hazard exposures and responses

Recent safety engineering surveys of several airlines with in-house unilateral safety efforts indicate that comprehensive efforts should pay for themselves, both fiscally and in terms of the health and welfare of employees. Data also suggest that airlines that have adopted these principles have been and continue to be inherently profitable despite fluctuating market trends. (Insurance premiums are based on risk calculations that take into account

average losses and claims. Air carriers with low loss rates pay lower premiums, which can translate into greater profitability.)

Successful accident prevention programs, which include comprehensive occupational safety procedures for all job categories, (not just those related to cabin workers) have been implemented by several U.S. and non-U.S. carriers, including American Airlines, Air Ontario, Canadian Airlines, British Airways, Qantas, KLM, Lufthansa, Singapore Airlines, Thai Airways, Southwest Airlines and Reeve Aleutian Airways. To date, non-U.S. airlines have generally spent more time and money developing occupational safety programs than their U.S. counterparts. ♦

### ***About the Author***

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*He began his career in aviation in 1966 with the U.S. Air Force, with duties in flight line safety, aircraft fire protection and later as a helicopter rescue team member. He served as chief of safety and emergency services at McDonnell Douglas Corp.'s flight development facilities during DC-9 and DC-10 testing and worked on military projects there. He also has been involved in the development of safety and fire protection procedures for commercial air carriers, governmental agencies and aircraft manufacturers for more than 25 years.*

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