

that injuries are possible if certain precautions are not followed. Furthermore, the objection by some passengers to the use of voluntary safety devices and air carrier advertising which encourages passengers to remain out of their seats tend to foster indifference to personal safety.

- 21. Flight attendants have sustained injuries while they were performing normal cabin service duties, such as preparing and serving beverages and meals.
- 22. Most injuries to flight attendants were sustained in galley areas, particularly those galleys located in the rear of the cabin.
- 23. Equipment for storing, preparing, and serving beverages and meals appears to be the most common source of injuries to flight attendants. Contents of galleys and serving carts tend to become hazardous missiles when turbulence is encountered or an evasive maneuver is made.
- 24. First-aid training of flight attendants appears to be adequate for most minor in-flight injuries. However, certain inadequacies exist in the ability of attendants to treat serious in-flight injuries.
- 25. Postlanding treatment is hampered by the inability of rescue personnel to transfer the injured from the airplane to ambulances in safety and comfort. Narrow aisles, high seatbacks, and the necessity to maneuver stretchers within confined cabin areas present problems to those who handle heavily loaded stretchers.

IX. RECOMMENDATIONS

As a result of this study, the National Transportation Safety Board recommends that the Federal Aviation Administration:

- 1. Require that each galley, lavatory, lavatory waiting area, lounge, and standup

bar area be so designed and constructed that persons using these areas will not be likely to suffer serious injury if turbulence or evasive maneuvers should be experienced in flight. Specifically, particular attention should be directed toward the improvement of padding on hard surfaces and protuberances, the elimination of sharp edges and corners, and the improvement of the security of items in galley areas. (Recommendation A-73-2)

- 2. Amend section 121.317 of the Federal Aviation Regulations to require that seatbelt signs be legible to each person, whether he is seated or standing, located in galleys, lounges, lavatories, or lavatory waiting areas. (Recommendation A-73-3)
- 3. Require that "Lavatory Occupied" signs be installed. These signs should be of sufficient size, color, and brightness as to be legible to all persons in the cabin, whether the persons are seated or standing (Recommendation A-73-4)
- 4. Prohibit the use of inwardly opening lavatory doors on new and refurbished aircraft, and provide means for rapidly unlocking lavatory doors from the outside without resorting to special implements. (Recommendation A-73-5)

The National Transportation Board recommends that the Air Transport Association of America and member air carriers:

- 1. Initiate a study to develop innovative methods for informing passengers of safety equipment and seatbelt usage. The work of Douglas Airplane Division, McDonnell Douglas Corporation, may serve as a guide to the more effective techniques for presenting passenger safety information. (Recommendation A-73-6)
- 2. Provide standardized guidelines to enable gate agents and other station personnel to identify apparently intoxicated persons and, subsequently, to handle these persons effectively. (Recommendation A-73-7)

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