



NTSB National Transportation Safety Board

Office of Aviation Safety



Occupant Protection

Survival Factors
presentation

Accident Flight

- One pilot
- Thirteen passengers
 - Six adults
 - Seven children ages 1 to 9 years
- Two pilot and eight passenger seats all equipped with lap/shoulder belts

Part 91 Restraint Regulations

- Each person must occupy a seat with safety belt properly secured
 - Children under 2 years may be held by adult
- Occupants not required to have separate seats or safety belts

Part 91 Restraint Regulations

- After Butte accident, staff sought clarification from FAA
- FAA confirmed that multiple (two or more) occupants could share a seat if seat usage conformed with airplane flight manual (AFM)

Part 23 Requirements

- PC-12 AFM limitations
 - Number of passengers
 - Number of seats
- Accident flight: number of passengers exceeded AFM limitation

Part 23 Requirements

- 1988 amendment to Part 23 required improved crashworthiness
 - Dynamic seat testing
 - Shoulder harness requirement
- PC-12 certified in 1996 and met newer crashworthiness standards
 - AFM limited number of occupants to comply with certification requirements

Safety Recommendations

- Require separate seats and restraints for all occupants on flights operating under Part 91
- Require children under 2 years to be restrained in separate seat position and in appropriate child restraint system

Recent FAA Action

- Notice of proposed clarification of prior interpretations
- Proposed clarification does not prohibit shared use of a seat and restraint system
- Relies on “good judgment of the pilot” for proper restraint of children



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