NTSB National Transportation Safety Board

Office of Research and Engineering

Accident Cases

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Presentation Overview

Boyceville, WI

- Case Examples:

  – Crash summary
  – Injuries
  – Safety Equipment
  – Injury Mechanism
  – Airbag benefit

Fullerton, CA

Accident Summary - Boyceville, WI

- Cirrus SR-22

- Impact into soybean field

- Left wing low, rotated, impacted nose down

- Longitudinal impact

- Primary and multifunction flight displays recovered

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Safety Equipment – Boyceville, WI

- Four-point restraints in all seating positions

- Airbags

  - Located in front row seating positions
  - Airbags deployed

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Occupant Injury – Boyceville, WI

- Three occupants
  - One with serious injuries
  - Two with minor injuries
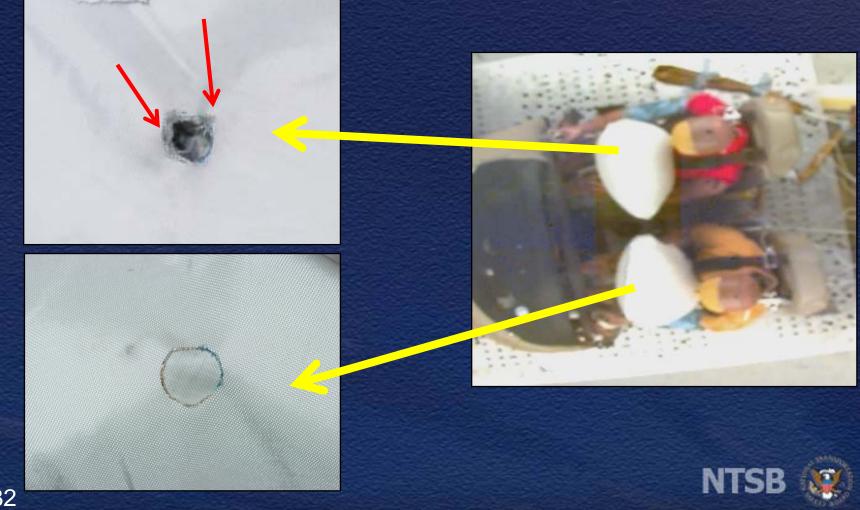 - Different injury severity for positions with airbag deployment

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Case Summary – Boyceville, WI

- Frayed vent holes

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Case Summary – Boyceville, WI

- Occupant motion was forward and right
- Airbag benefit

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Presentation Overview

- ## Case Examples:

  - Crash summary
  - Injuries
  - Safety Equipment
  - Injury Mechanism
  - Airbag benefit

Boyceville, WI

Fullerton, CA

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- Cessna 172S
- Loss of control during takeoff
- Airport video camera

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Fullerton Accident Sequence

6:37:41

6:37:42

Pictures from video camera on tower
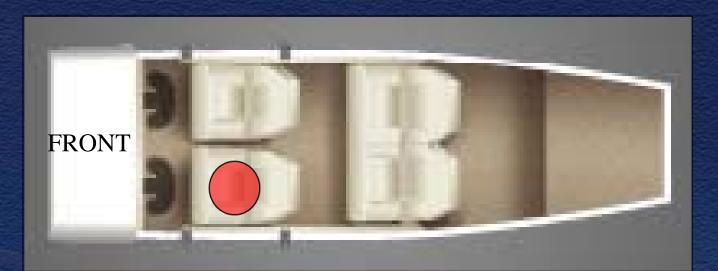
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Safety Equipment – Fullerton, CA

- Three-point restraints in all seating positions

- Airbags

  – Located in front row seating positions
  – Pilot airbag deployed

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- Single occupant
  - Pilot had serious injuries
    - Multiple leg fractures, arm fracture, facial fracture, lung contusion, abrasions

FRONT

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Case Summary – Fullerton, CA

- Occupant motion was forward and to the right

- Injuries resulted from direct impact

- Airbag prevented additional chest injuries

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Case Summary – Fullerton, CA

- Above average waist size

- Airbag offset to right

- Airbag benefit for torso region

Airbag

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