Survival Factors presentation

Occupant Survivability, Emergency Response, and Frangible Structures

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Occupant Survivability

- Fire erupted “almost instantaneously” likely near wing root area
Emergency Response

• BED: joint civil/military airport
  - Hanscom Air Force Base performed firefighting services under contract with Massachusetts Port Authority

• Emergency response issues
  - Vehicles’ water supply exhausted after 25 minutes, then 14-minute period without firefighting
  - Resupply hose not dropped at fire hydrant while en route to scene
  - Airport grid map did not contain all perimeter gate locations
Airport Structure Frangibility

• Airplane struck approach lighting system, localizer antenna, and perimeter fence outside runway safety area (RSA)
• Fittings were not frangible
• Only structures inside RSA must have frangible fittings
• Structures likely substantially damaged airplane
Frangible Support Structures

Frangible localizer antenna support

Frangible connector
Frangible Structures

• FAA used frangible fittings for replacement at BED
• FAA encourages incorporation of frangible fittings in areas adjacent to RSAs
• No current method for identifying nonfrangible structures outside RSAs