Evacuation Decision Making

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NTSB ACCIDENTS

• Delta Airlines Flight 1086 LGA
• British Airways Flight 2276 LAS
• Dynamic Airway Intl Flight 405 FLL
• American Airlines Flight 383 ORD
Topics to be Discussed

• Crew communications
• Crew responsibilities and jumpseat locations
• Passengers evacuations near running engines
• NTSB recommendations
Delta Airlines Flight 1086
Pre-evacuation Events

- Loss of interphone and public address system
- Flight attendants left assigned exits
- First responder told first officer that airplane should be evacuated
  - Fuel leaking from left wing
- Flight crew did not notify flight attendants about fuel leak
- Initially only right overwing exits to be used
Evacuation Timeline

- Time airplane came to stop
- Evacuation announcement made
- First passengers evacuated
- All passengers evacuated

6 min
12 min
17+ min
British Airways Flight 2276
Events after Engine Failure

- Relief pilot assessed engines fire
- Captain called for evacuation
- Right engine still operating
- 2 useable exits
  - 1R door
  - 4L door
- Evacuation lasted approximately 2 minutes and 32 seconds
American Airlines Flight 383
Evacuation Exits
Issues Uncovered in the Investigation

• Crew Communication / Interphone operation
• Crew member exit responsibility
• Assessing conditions before exit operation
Recommendations

- Require guidance that instructs flight attendants to remain at their assigned exits and actively monitor exit availability in all non-normal situations.
- Require F/A training programs to include scenarios requiring crew coordination and a loss of communication.
Recommendations

• Establish an industry working group to develop best practices related to evacuation communication, coordination, and decision-making during emergencies and issue guidance to improve flight and cabin crew performance during evacuations.
Recent Recommendations

- Develop and issue guidance to all air carriers that conduct passenger-carrying operations under 14 Code of Federal Regulations Part 121 regarding (1) discussing this accident during recurrent flight attendant training to emphasize the importance of effectively assessing door and overwing exits during an unusual or emergency situation and (2) providing techniques for identifying conditions that would preclude opening exits, including an operating engine.
Recent Recommendations

• Review the training programs of all 14 *Code of Federal Regulations* Part 121 operators and make changes as necessary to ensure that the programs provide flight attendants and flight crews with training aids and hands-on emergency scenarios that account for the different interphone systems that air carriers operate.

• Conduct research to (1) measure and evaluate the effects of carry-on baggage on passenger deplaning times and safety during an emergency evacuation and (2) identify effective countermeasures to reduce any determined risks, and then implement the countermeasures.
Investigative Question

- Crew preparedness
- Unusual situations
- Exit row programs
- CRM
- Crew communications
Summary

• Crew communication
• Crew exit responsibilities
• Assessing condition before operating emergency exits