National Transportation Safety Board

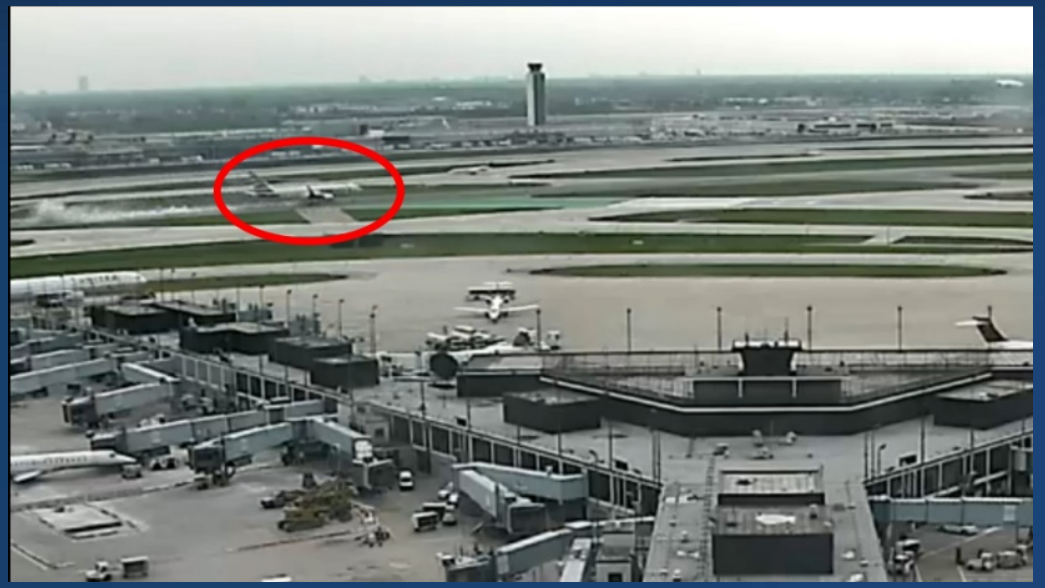
Uncontained Engine Failure and Subsequent Fire
American Airlines Flight 383
Chicago, Illinois
October 28, 2016

Investigator-in-Charge presentation

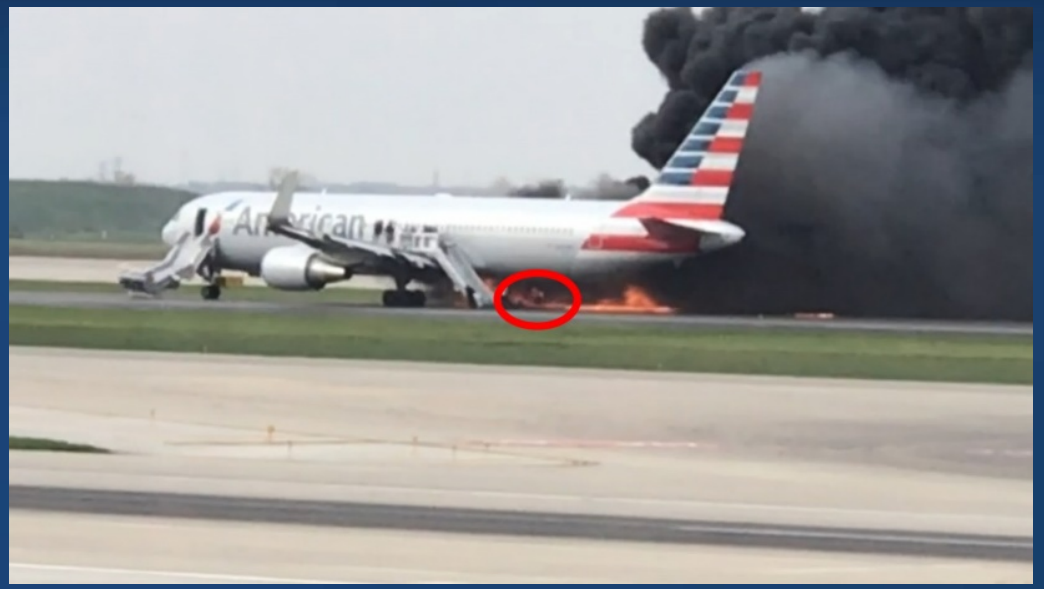
Summary

- Boeing 767-300
- Takeoff ground roll
- Uncontained right engine failure and subsequent fire
- Flight crew rejected takeoff, and flight attendants initiated evacuation

Video of Rejected Takeoff and Evacuation



Rejected takeoff



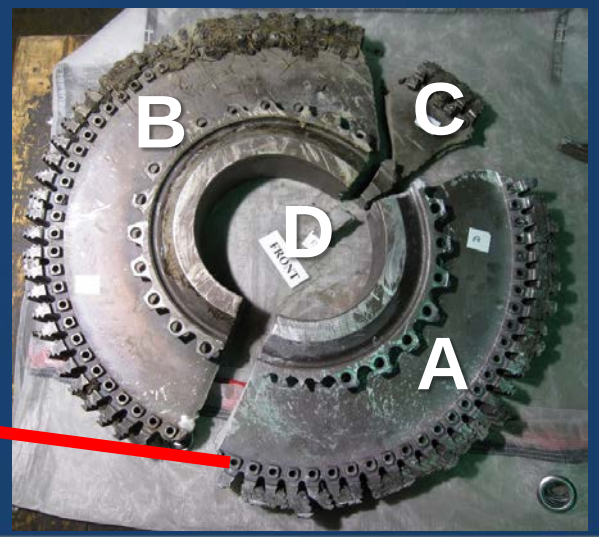
Evacuation

Summary

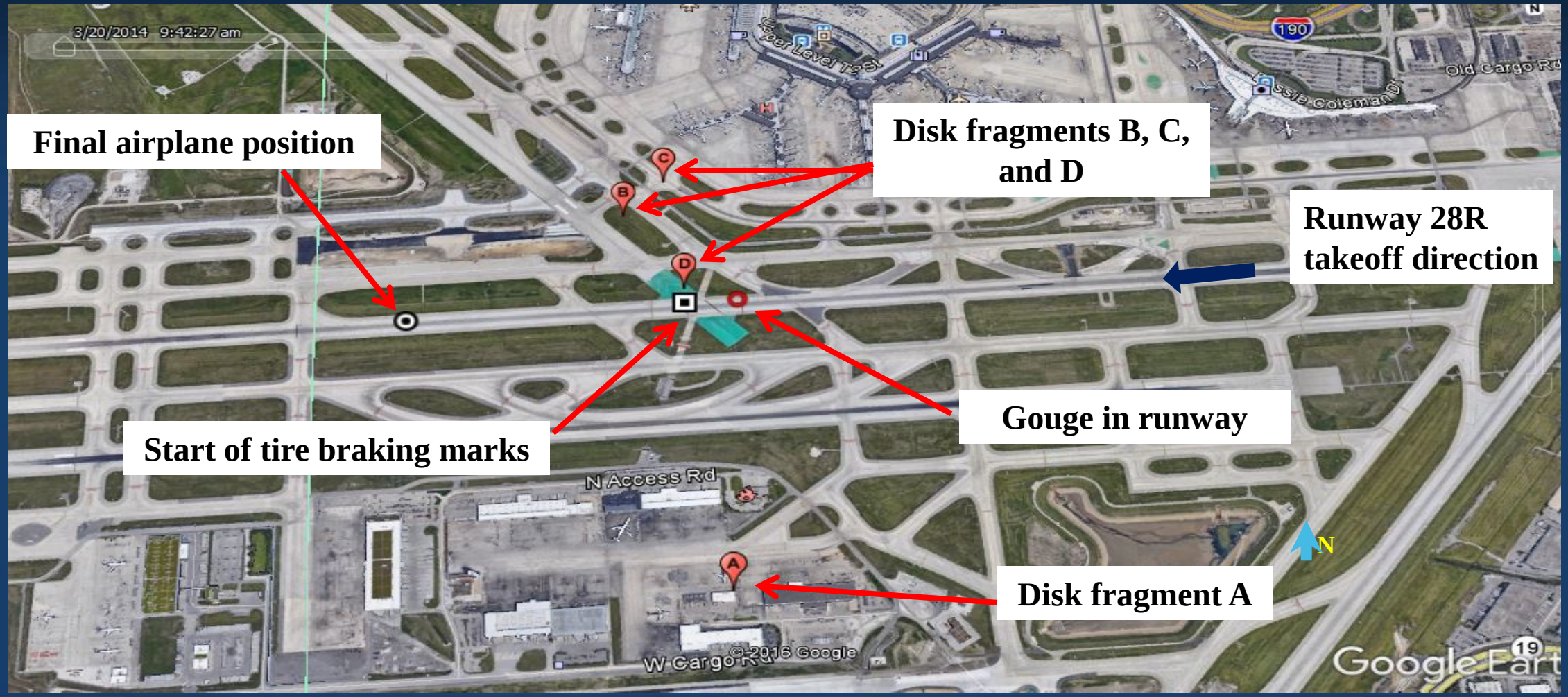
- Two flight crewmembers, 7 flight attendants, and 161 passengers
- One serious injury and 20 minor injuries
- Airplane substantially damaged from fire

Uncontained Engine Failure

- High-pressure turbine (HPT) stage 2 disk rupture
- HPT stage 2 disk nickel-based alloy



Disk Fragment Locations



Safety Issues

- Lack of recent guidance on production inspection processes for nickel alloy engine components
- Need for improved inspection techniques for critical rotating engine parts
- Need for updated guidance on minimizing hazards from uncontained engine failures

Safety Issues

- Need for separate engine fire checklists for ground and in-flight operations
- Need for improved flight attendant training on assessing exits for evacuations
- Need for hands-on training for interphone systems
- Need for improved communication between flight and cabin crews during evacuations
- Lack of research on effects of evacuating with carry-on baggage

Parties to Investigation

- Federal Aviation Administration
- Allied Pilots Association
- American Airlines
- Association of Professional Flight Attendants
- ATI Specialty Materials
- Boeing Company
- General Electric Aviation
- Transport Workers Union of America, AFL-CIO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