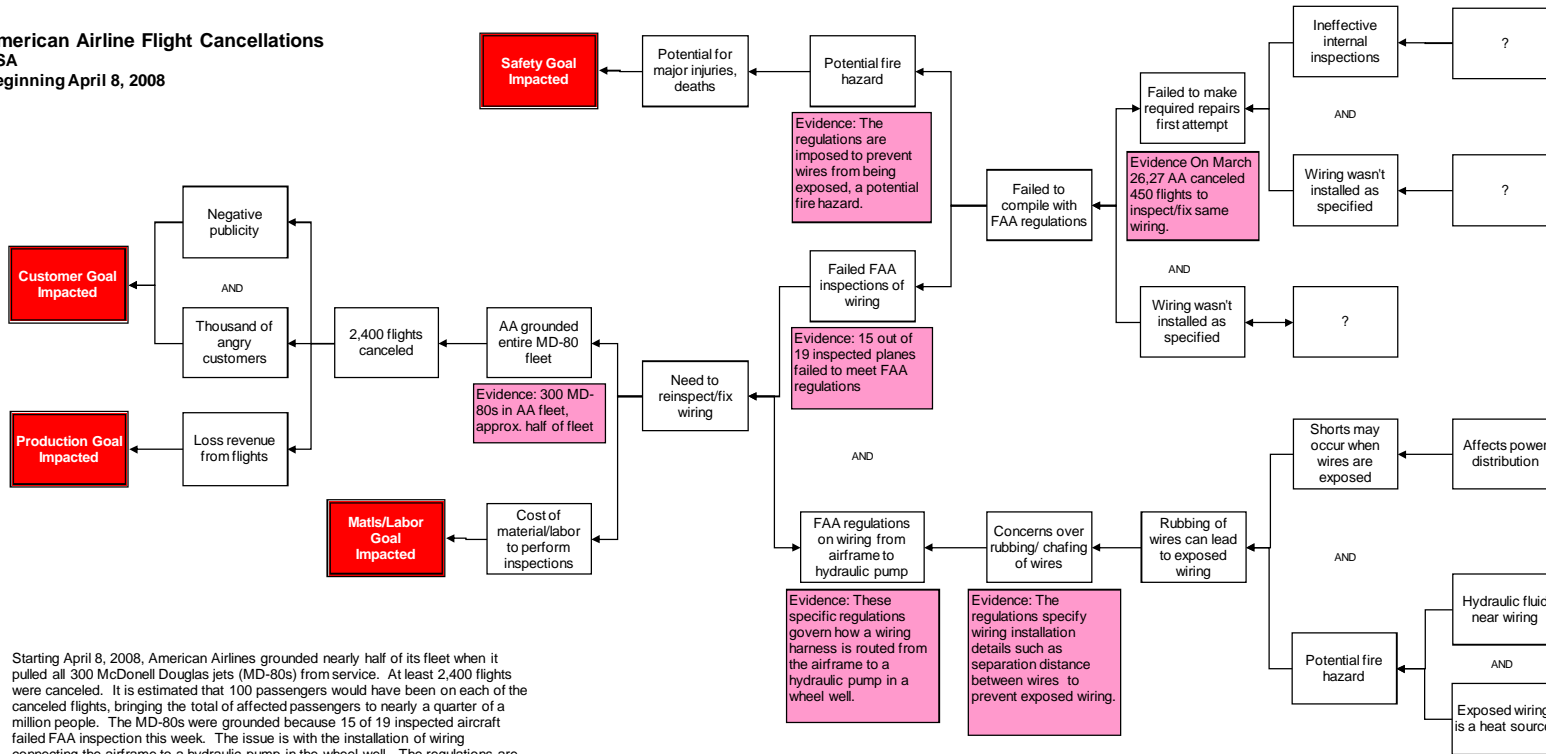


**American Airline Flight Cancellations USA**  
**Beginning April 8, 2008**



Starting April 8, 2008, American Airlines grounded nearly half of its fleet when it pulled all 300 McDonnell Douglas jets (MD-80s) from service. At least 2,400 flights were canceled. It is estimated that 100 passengers would have been on each of the canceled flights, bringing the total of affected passengers to nearly a quarter of a million people. The MD-80s were grounded because 15 of 19 inspected aircraft failed FAA inspection this week. The issue is with the installation of wiring connecting the airframe to a hydraulic pump in the wheel well. The regulations are written to prevent rubbing and chafing of the wiring, which can lead to exposed wiring. Exposed wiring is a concern because it can to power issues and shorts, and it is a potential fire hazard.

The most alarming part of the story is that American Airlines grounded these same planes for the exact same issue on March 26 and 27. Over 350 flights were canceled while the planes were inspected and repaired if necessary to compile with the FAA wiring regulations. All planes were back in service on March 28 after American Airlines asserted they satisfied the regulation. Little information is available on what went wrong two weeks ago. There are a number of questions that would need to be answered to perform a thorough investigation. Are the FAA regulations confusing? Do the AA mechanics need additional training? Did the airline fail to internally check the wiring prior to putting the planes back into service? If an inspection did occur, did the inspectors understand what they were looking for? It may not be clear exactly what went wrong, but it is clear that something failed in the system to cause this second round of cancellations.

This intermediate level root cause analysis of the cancellation of American Airline flights on April 8-9. It was built using the facts that were available in media report. As more details are known, the Cause Map can be expanded.

**Cause Map**  
**Detail Level**



Copyright ThinkReliability 2008

