



# National Transportation Safety Board Board Meeting

Air Midwest Flight 5481  
Charlotte, NC  
January 8, 2003



NTSB Boardroom, Washington, DC

# Air Midwest Flight 5481, Charlotte, NC Board Meeting

**William J. Bramble, Jr., Ph.D.**

Senior Human Performance Investigator



National Transportation Safety Board

# Factors Affecting Maintenance at the Huntington Facility

- Training
- Procedural guidance
- On-site supervision
- Continuing analysis and surveillance



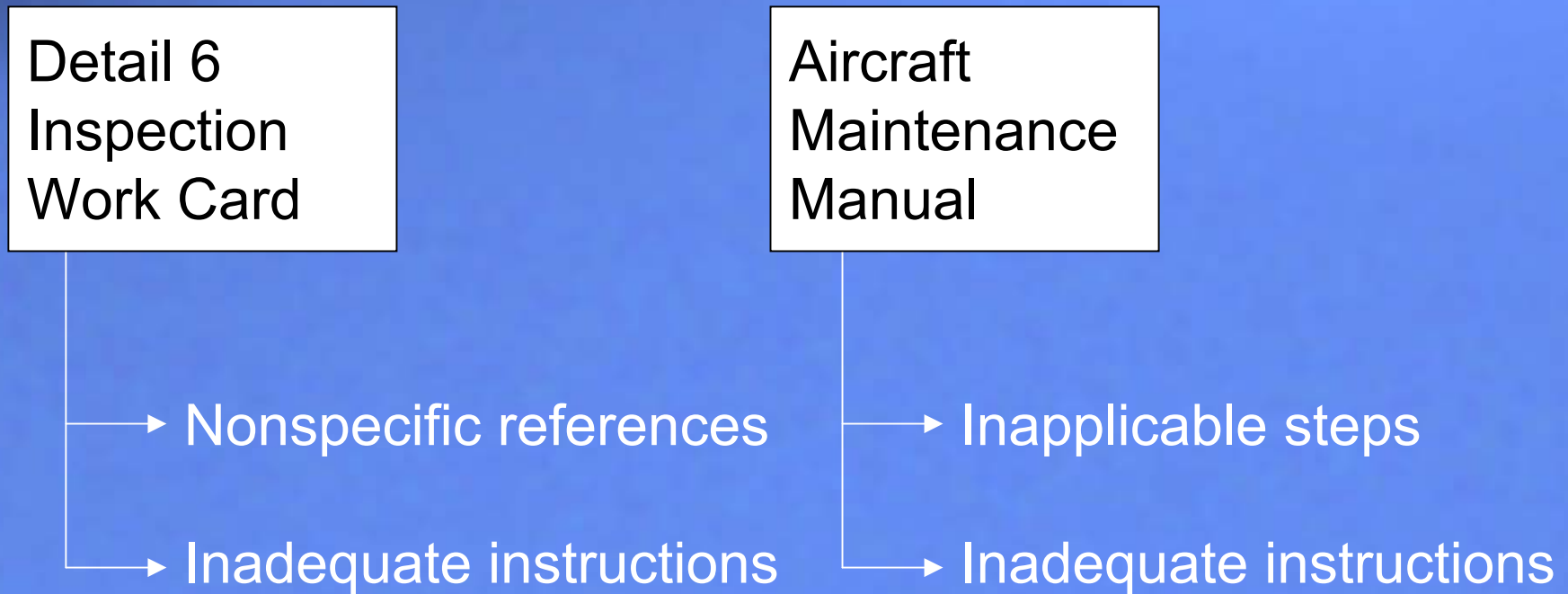
# Training

- Heavy use of on-the-job training (OJT)
- Vague procedures for OJT
- Noncompliance with company training policy
- Inadequate record keeping





# Procedural Guidance



# On-Site Supervision

- Air Midwest personnel were not usually present when maintenance was performed
- Raytheon Aerospace did not provide enough foremen and inspectors
- Inspectors performed some of the foreman's duties in addition to their own



# Continuing Analysis and Surveillance Systems (CASS)

- Air Midwest's program had a history of deficiencies
- Program did not identify deficiencies in training and procedural guidance
- Program identified a staffing deficiency, but did not correct it



# Federal Aviation Administration Oversight

- FAA was aware of deficiencies in training and CASS program before the accident
- FAA staff proposed delay of new routes to encourage change, but reconsidered
- Deficiencies still existed at the time of the accident





# Programs to Reduce Human Error in Aviation Maintenance and Inspection

- 15-year FAA-sponsored research program
- Emphasis on development of written guidance and voluntary programs
- Maintenance-related accidents continue

