



**NTSB** National Transportation Safety Board

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# ABX Air Ground Fire



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Fire Initiation

# Supernumerary Compartment



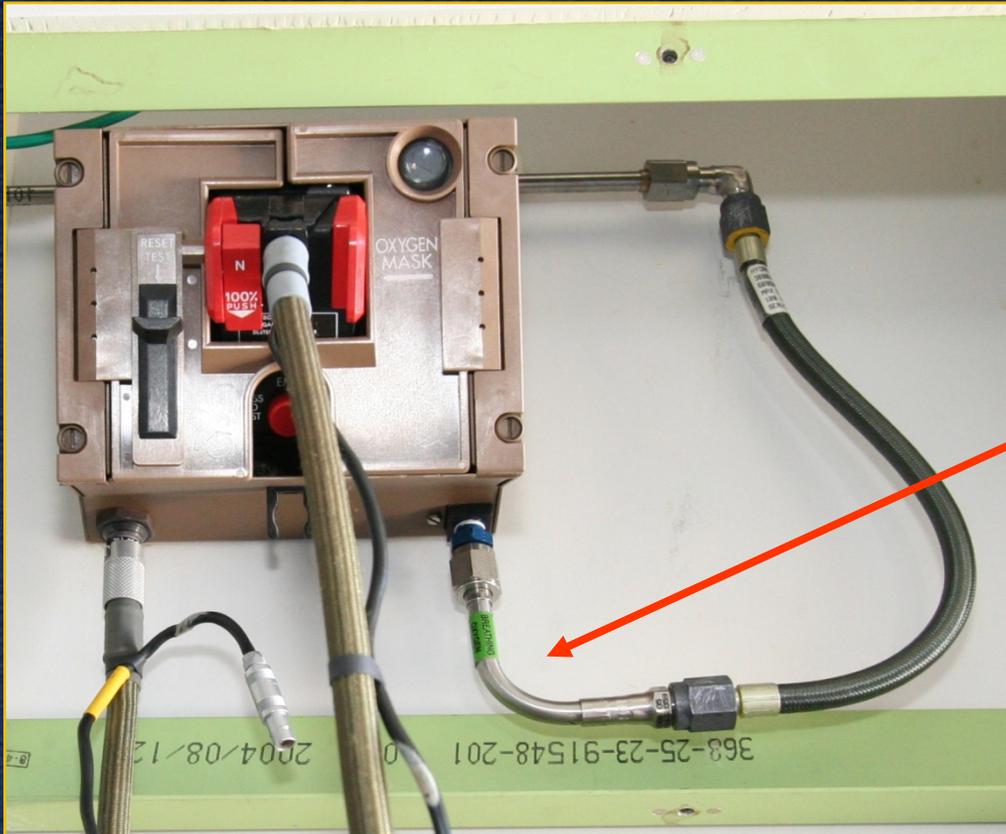
# Oxygen Mask Enclosure



# Area of Fire Origin



# Melted Stainless Steel



# Oxygen Hose Tests

Two types of tests conducted

- Ignition by electrical current
  - Internal heating
  - Simulate short circuit
- Ignition by external heat source
  - Simulate response to fire

# Oxygen Hose Test Video



# Test Conclusions

- Internal heating
  - Pop/bang similar to firecracker
  - Hissing
- External heating
  - No loud pop/bang
  - Hissing
- Fire resembled cutting torch

# Test Conclusions

- Noises heard by crew consistent with conductive and combustible oxygen hose ignition by short circuit
- Oxygen hose design brings together
  - Ignition source
  - Fuel
  - Oxidizer

# Fire Initiation

- Melted stainless steel elbow
- Crew observations
- Oxygen hose tests
- Fire initiated due to electrical current passing within conductive and combustible oxygen hose

# Smoke Detectors

- No smoke detectors required in supernumerary compartment
- No smoke detectors in occupied areas
- Supernumerary compartments not always occupied



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