

# Dilbert Meets the Far Side

FAA Certification Process

# KAO operations

- KAO run by NASA
- Experimental airplane
- Very raw environment

# SOFIA operations

- SOFIA is Passenger Airplane
- Must meet FAA rules
- Safety of passengers
- Run by United Airlines

# Plan of action

- get key players talking
  - scientists, Raytheon engineers, UAL crew
  - telecons
- education process
- all on the same team!?!

# Big concerns

- Instrument is a pressure seal
- Instrument is a large mass attached at only one end
- Science equipment should not be a missile
  - attached securely
- Instrument should not be a bomb
  - Ice plugs

# Mechanical

- Instrument can't come off during flight
- Materials must be approved
- G-loads (9g forward, 3g up, ....)
- dewar is a pressure vessel

# Electrical

- “Turn off your computers during take off”
- FAA worried about interference in airplane systems
  - their power is so much greater
  - we’re worried about interference in instrument

# Operations

- wheeling instrument in without damaging plane
- attaching instrument to plane
- how to deal with cryogenics

# Conceptual Design Review

- Instrument teams meet in Waco with DERs, DARs
  - March 11,12
- Give presentation of instrument as conceived
  - need to address three topics above
- Identify points of concern