

# Why Catastrophic Accidents Are Not Unique

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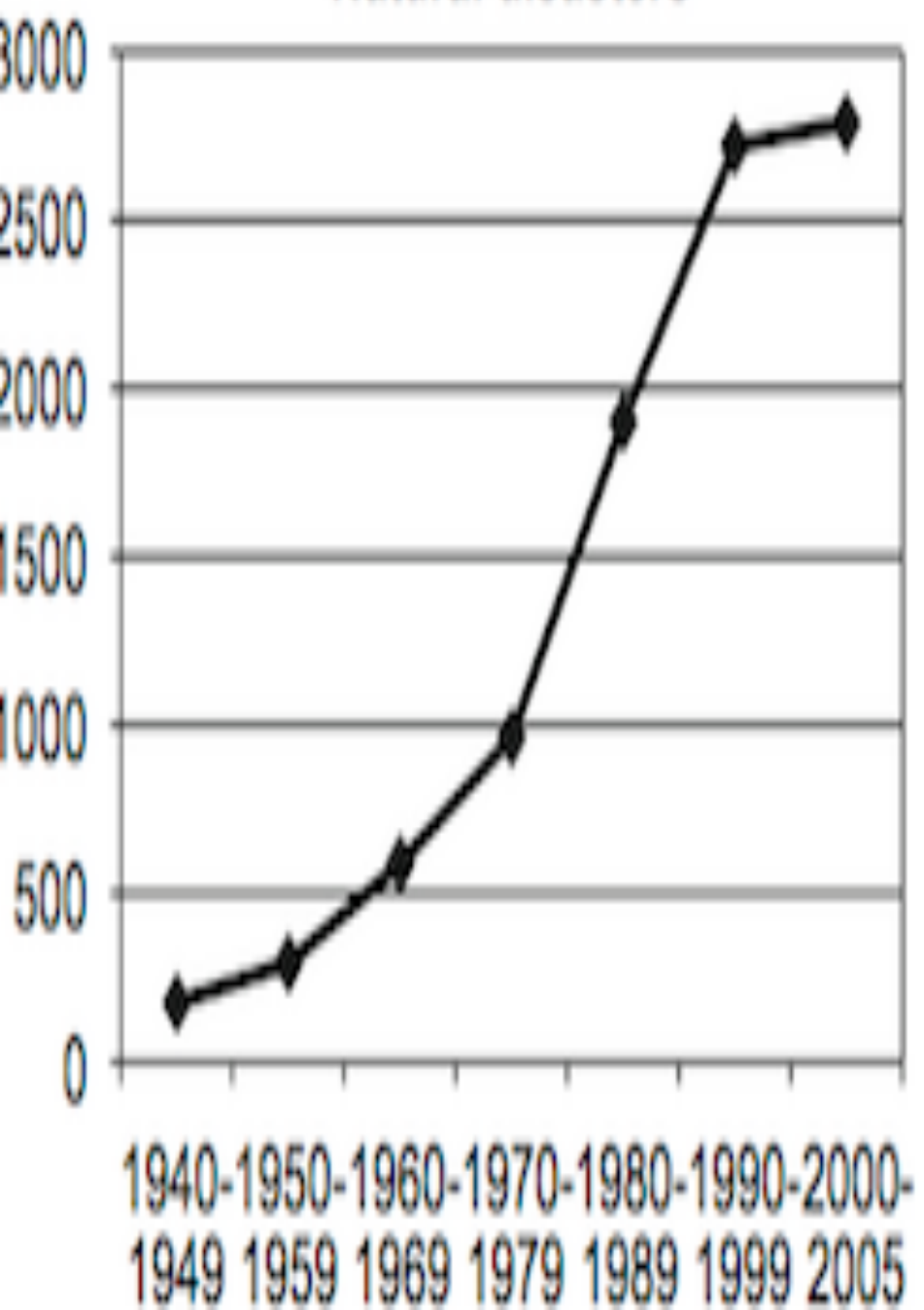
# Agenda

- Are “accidents” really “accidents?”
- Increase in natural disasters 1940s until now
- The ten worst man-made disasters
- Six of the **many** reasons for disasters
- Events that could turn into disasters but don't

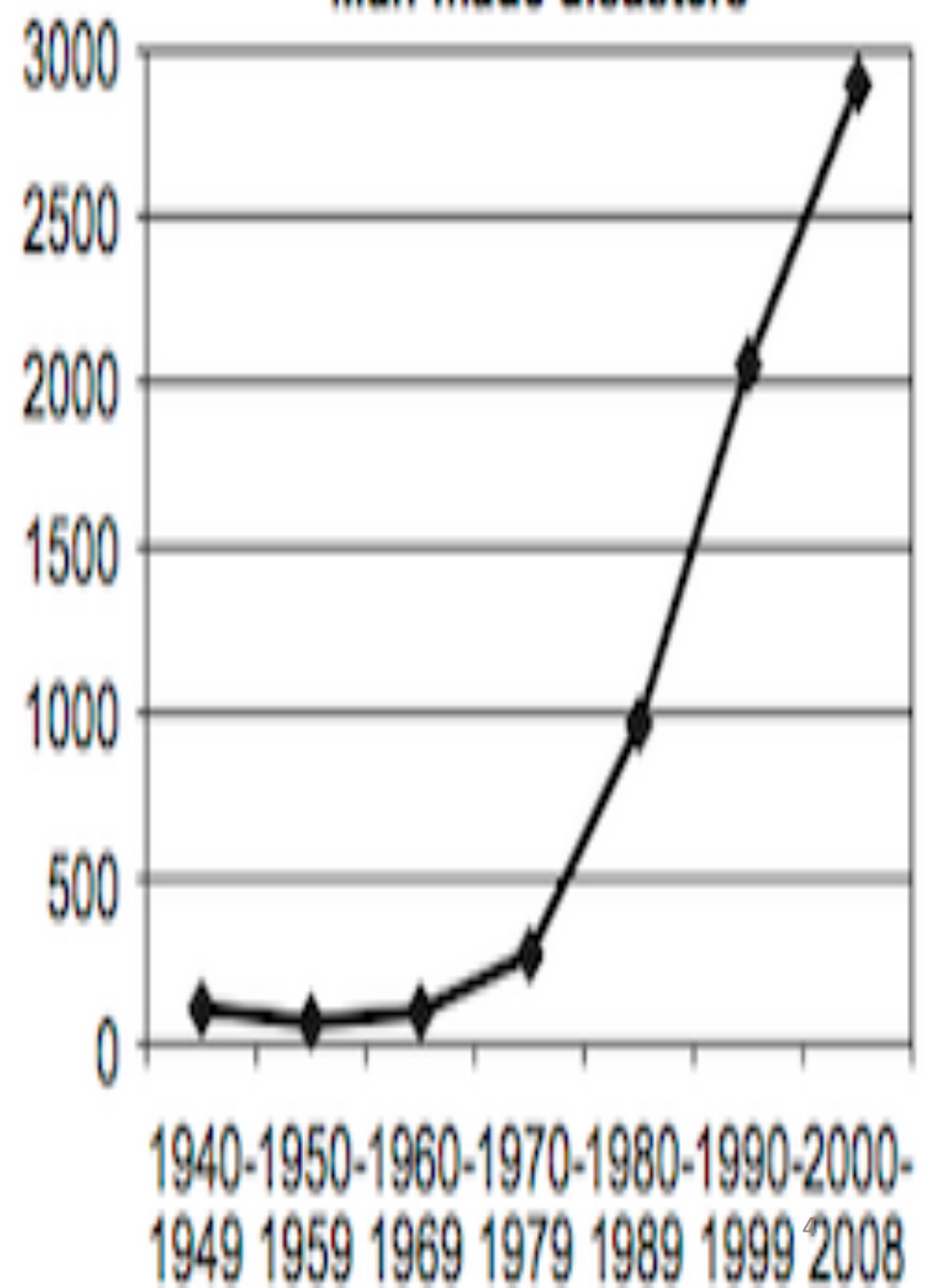


*"They think they're accidents."*

### Natural disasters



### Man-made disasters



# Top Ten Man Made Disasters

- 10. Three Mile Island, U.S. (1979)
- 9. Exxon Valdez Accident, U.S. (1989)
- 8. Dust Bowl, U.S. (1934-36)
- 7. Seveso Disaster, Italy (1976)
- 6. Minamato Disaster, Japan (1950s – 60s)
- 5. Love Canal, U.S. (1940s – 50s)
- 4. Great Smog, London (1952)
- 3. Deepwater Horizon, U.S. (2010)
- 2. Chernobyl, U.S.S.R (1986)
- 1. Bhopal, India (1984)

# Reasons for More Disasters

- More people live on earth
- We're building more complex organizations that can cause or contribute to disasters
- There are more communication links to spread the word of disasters



# Six of the MANY Reasons for Organizational Disaster

- Design or other technological failures
- Training failures
- Decision making failures
- Communication failures
- Failure of imagination
- Failure to deal with organizational interdependencies



# Design or other technological failure – Minneapolis bridge



# Training failures – Clapham Junction railway failure



# Decision making failures – Space shuttle Columbia





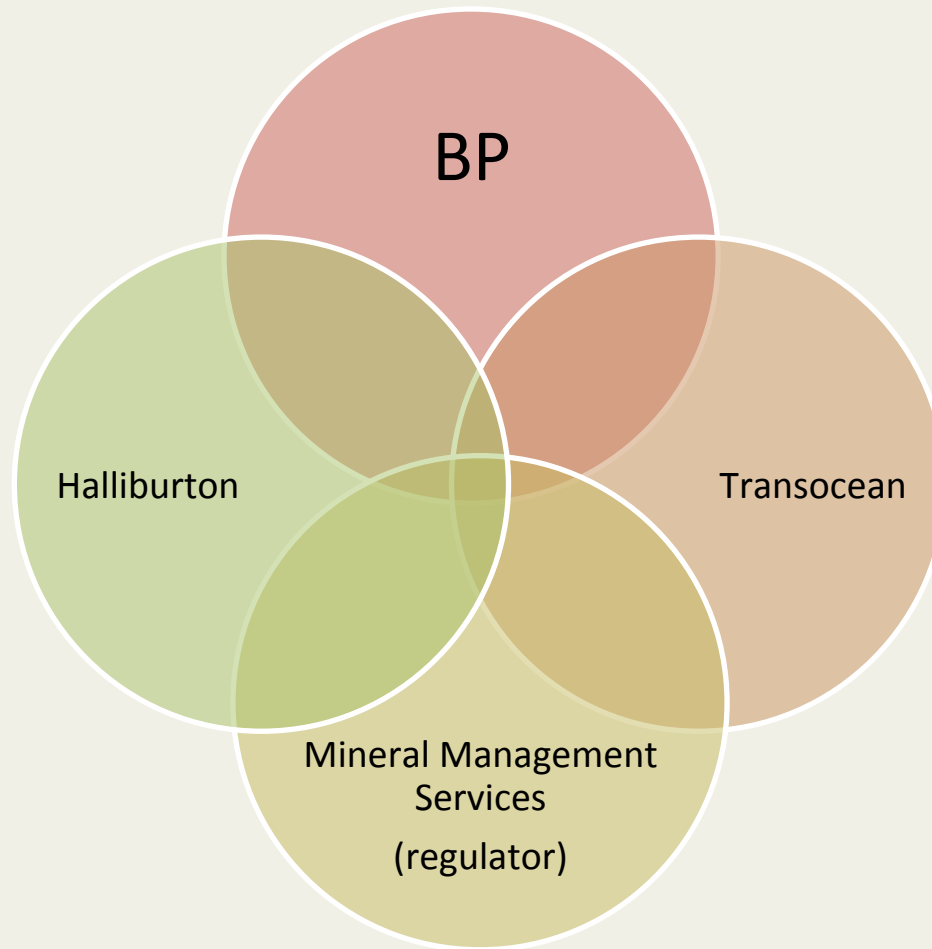
# Communication failures – Hurricane Katrina



# Failure of imagination – 911 bombing



# Failure to deal with organizational interdependencies – BP Gulf of Mexico











# Six of the MANY Reasons for Organizational Disaster

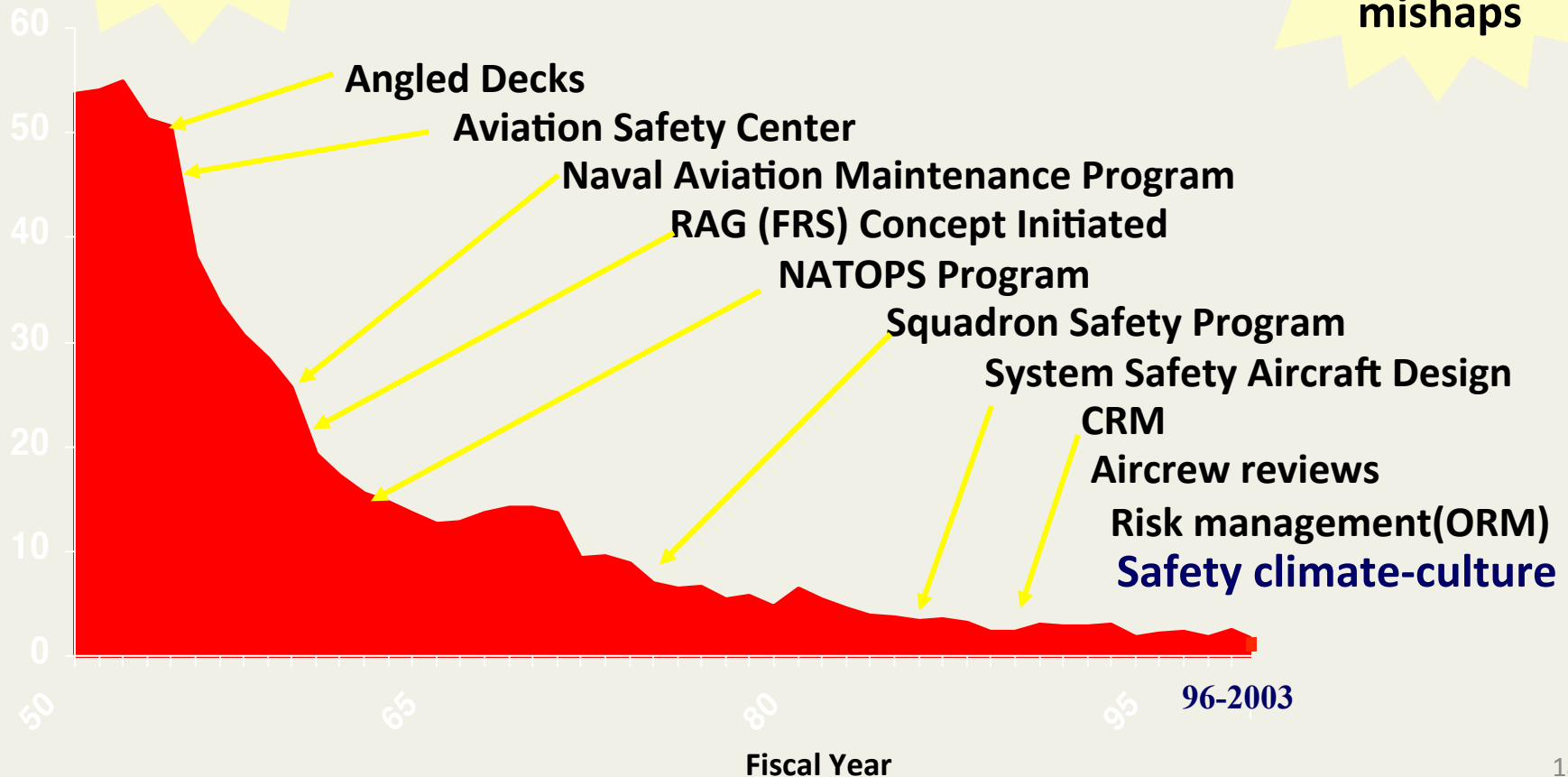
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# Naval Aviation Class A Flight Mishap Rate

776 aircraft destroyed in 1954

FY50-03

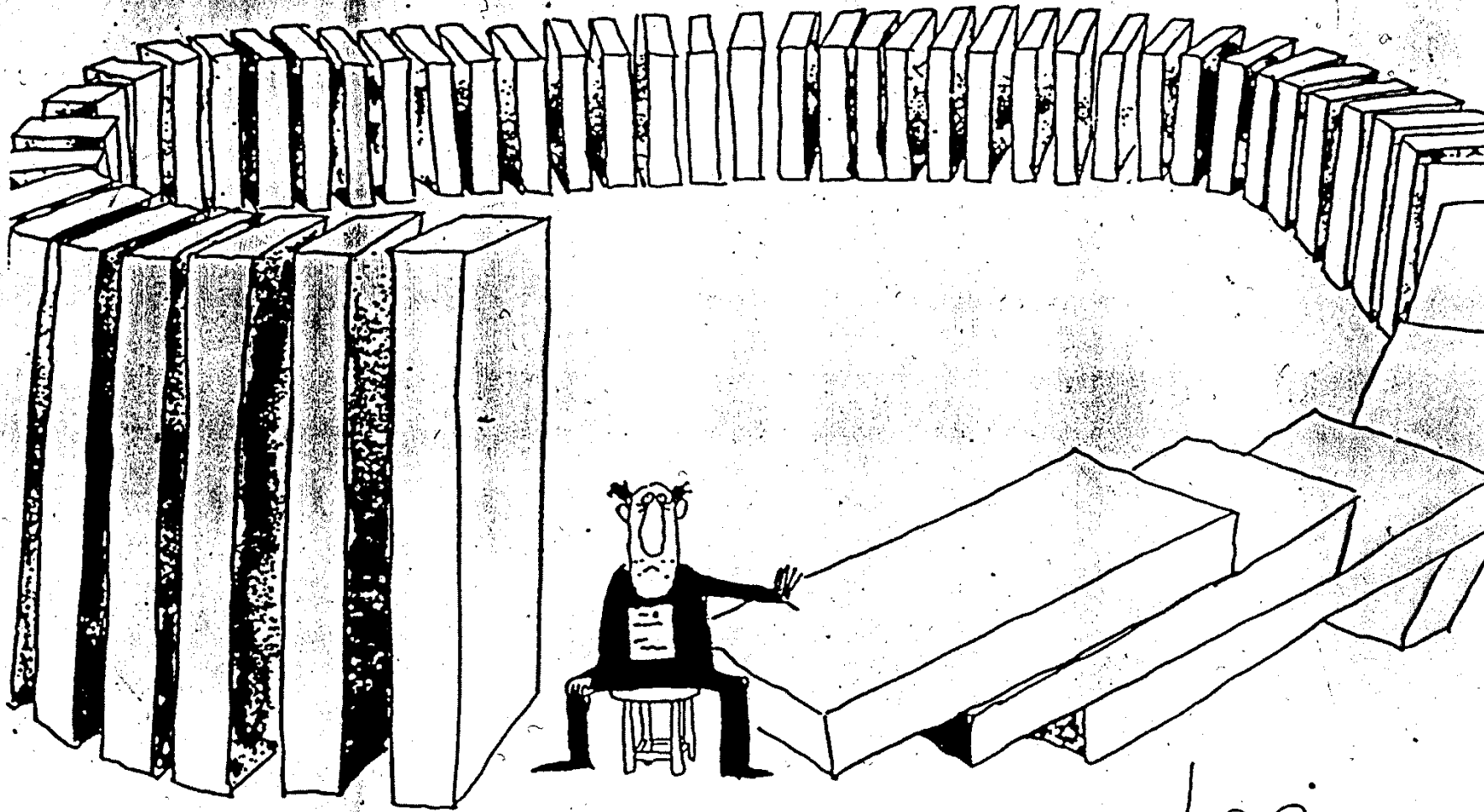
26 aircraft destroyed in FY03- all in flight mishaps











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