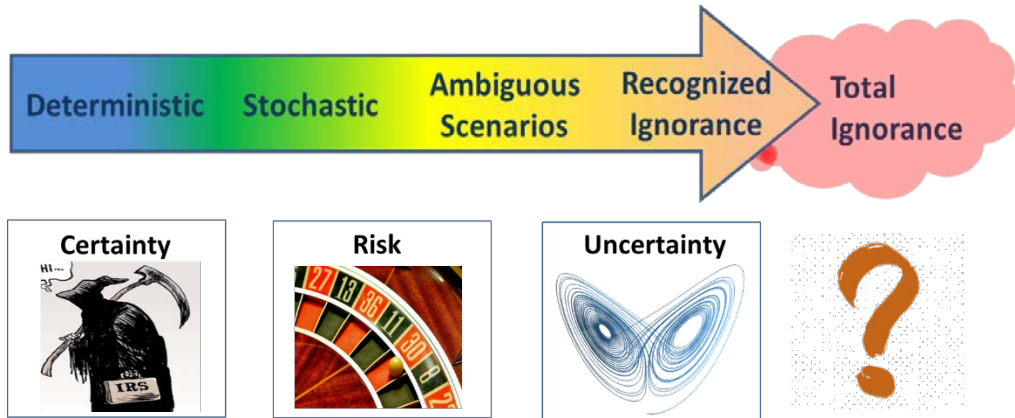# Risk Awareness, STPA, and Flight Test Safety Planning

Risk Awareness

Perception of uncertainty and the potential, projected outcomes from uncertainty

Safety Planning / Safety Reviews

- What do we "truly" know?
- Confidence intervals of the "knowns"?
- How well does the team know the system?

- What is unknown?
- What is the nature of the unknown?
- Build-up tests/analysis... reduce the reducible ignorance?

- What tests were not done?
- Where are the gaps in knowledge?
- What model surprises thus far?

- What does the test inform? What will we learn?
- Is there sufficient <u>schedule</u> to learn?

- What is the state of knowledge across the organization?
- Is knowledge flowing between nodes?
- Are some nodes disproportionally lacking knowledge?

- **Possible** vs Plausible or Probable (*Can it happen?*)
- Scenario planning, pre-accident investigations, functional frameworks (STPA), etc.

Flight Test Safety Workshop · Col Doug "Beaker" Wickert · Department of Aeronautics, USAF Academy