

# Aerospace Systems Engineering

Jason Merret



Aerospace Engineering

# Welcome New Graduate Students

- Director of the Master of Engineering Program in Aerospace Systems Engineering
  - Part of the Aerospace Graduate Program
  - Currently run out of the GCOE
- Master of Engineering Program
  - 14 existing students
  - 3 graduates
  - 8 new students
- Looking forward to meeting and with each one of you
  - All graduate students are welcome to come chat with me

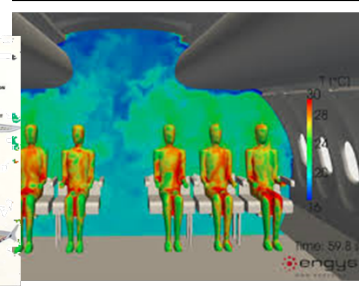
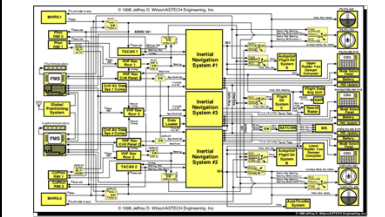
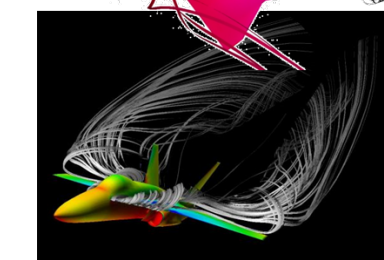
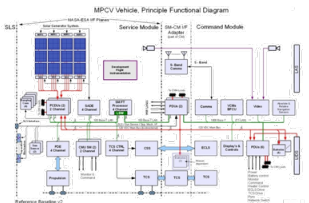
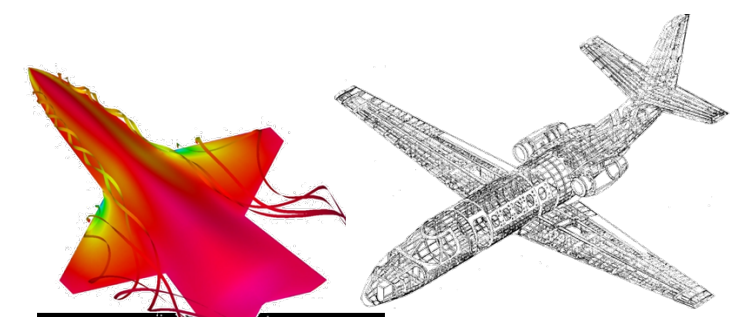
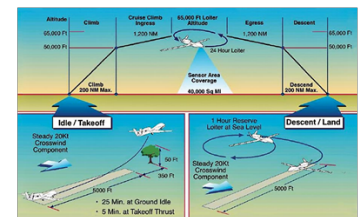
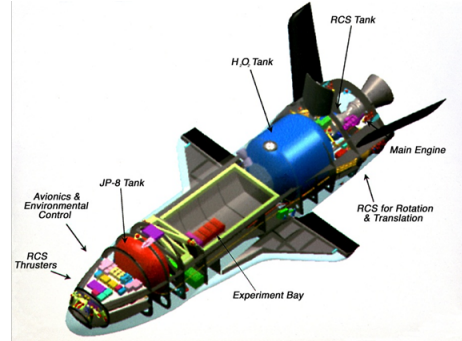
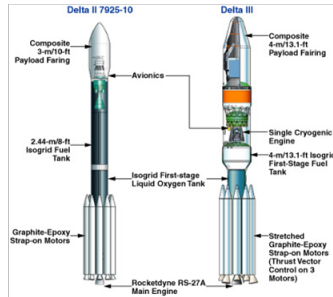
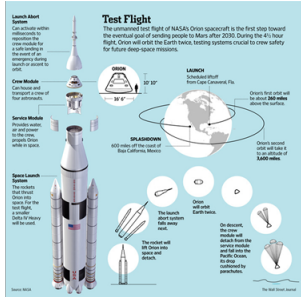
# What is Systems Engineering?

Systems Engineering is a holistic perspective of the engineering profession, enterprises that engage engineers, and communities that operate the products, systems and services that engineers create.

- Systems Engineering is a broad discipline
  - Systems Engineering addresses the integration of large, complex Family-of-Systems, Systems-of-Systems, Systems and Subsystems
- Systems Engineering has been captured in many different forms
- The SYSTEMS ENGINEER is a "**big picture**" engineer.
- Controls the overall systems design to meet the needs of all of the stakeholders. (buyers, operators, maintainers and commanders)



# Aerospace System - Complexity



# Master of Engineering Degree



Aerospace Engineering

# Vision

- Develop Aerospace Engineers with technical depth/breadth that will be focused at the system level while preparing them to become system, project, or program engineers through a professionally based master's program
- Utilize College of Engineering resources available to the Aerospace Department to continue to develop and advance the degree programs offered by the department





# Master of Engineering ASE Website

- <https://aerospacesystemsmeng.engineering.illinois.edu/>



# Format

- Replaces AE MS-NT in Systems Engineering
- Student customizable
- Practicum replaces math requirement
- On-campus
  - 3 semester program
    - Fall-Spring-Summer
    - Fall-Spring-Fall
    - Spring-Fall-Spring
    - Spring-Fall-Summer (Not possible at this time due to 542-543 sequence)
  - No student funding (TA or RA)
- On-line
  - 5 year maximum





# Professional Development/Practicum

- Student will participate/solve in an industry style problem/work package
- GCOE will do it's best to connect the student with a company that is relevant to their field of study within the MEng program
- Typical Problem scope
  - Small problem that is solvable in a semester
  - Systems engineering oriented
  - Technical challenge encouraged
- 30-40 page report at the end of the semester





# Questions and Feedback



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