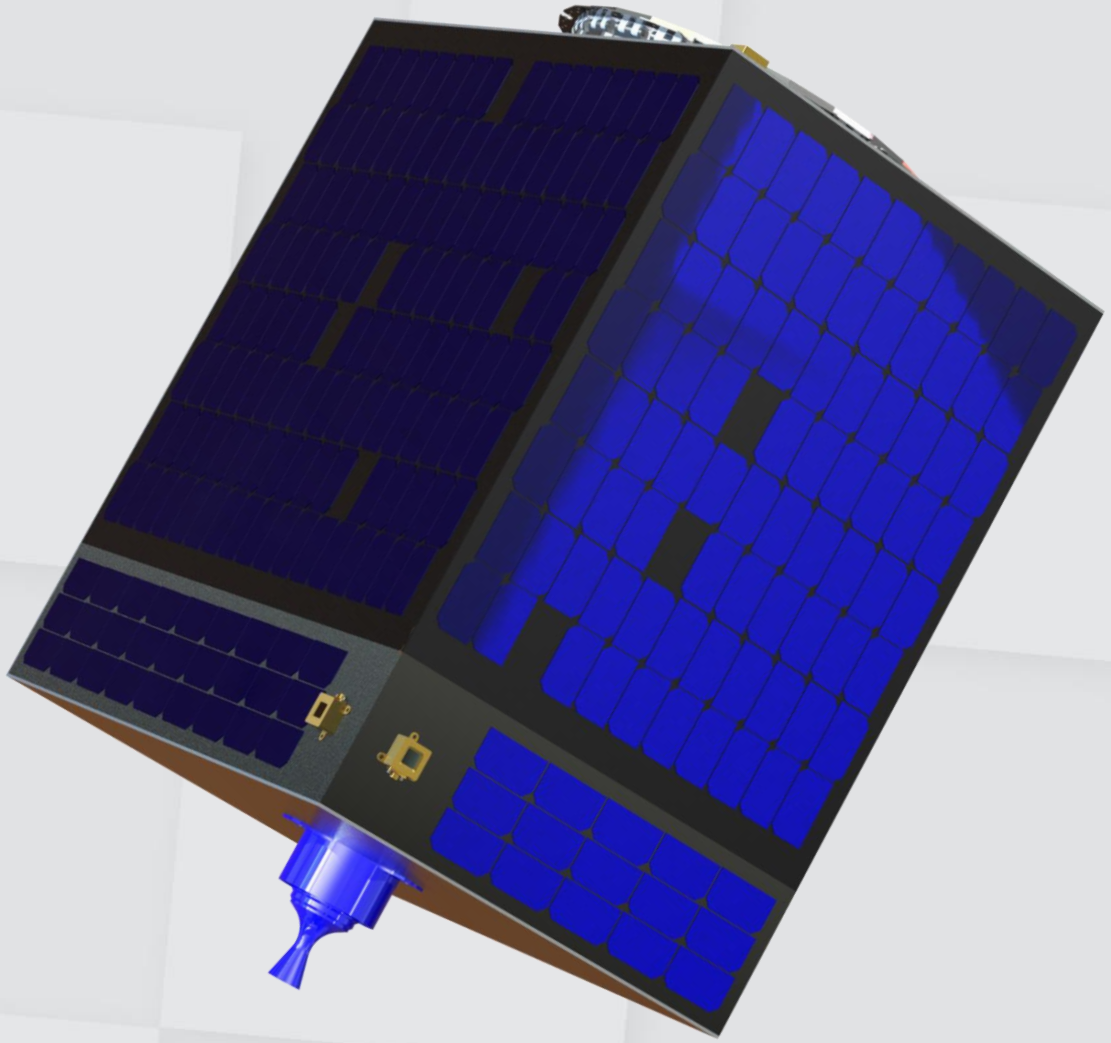
Kaber-Class Satellite: FeatherCraft

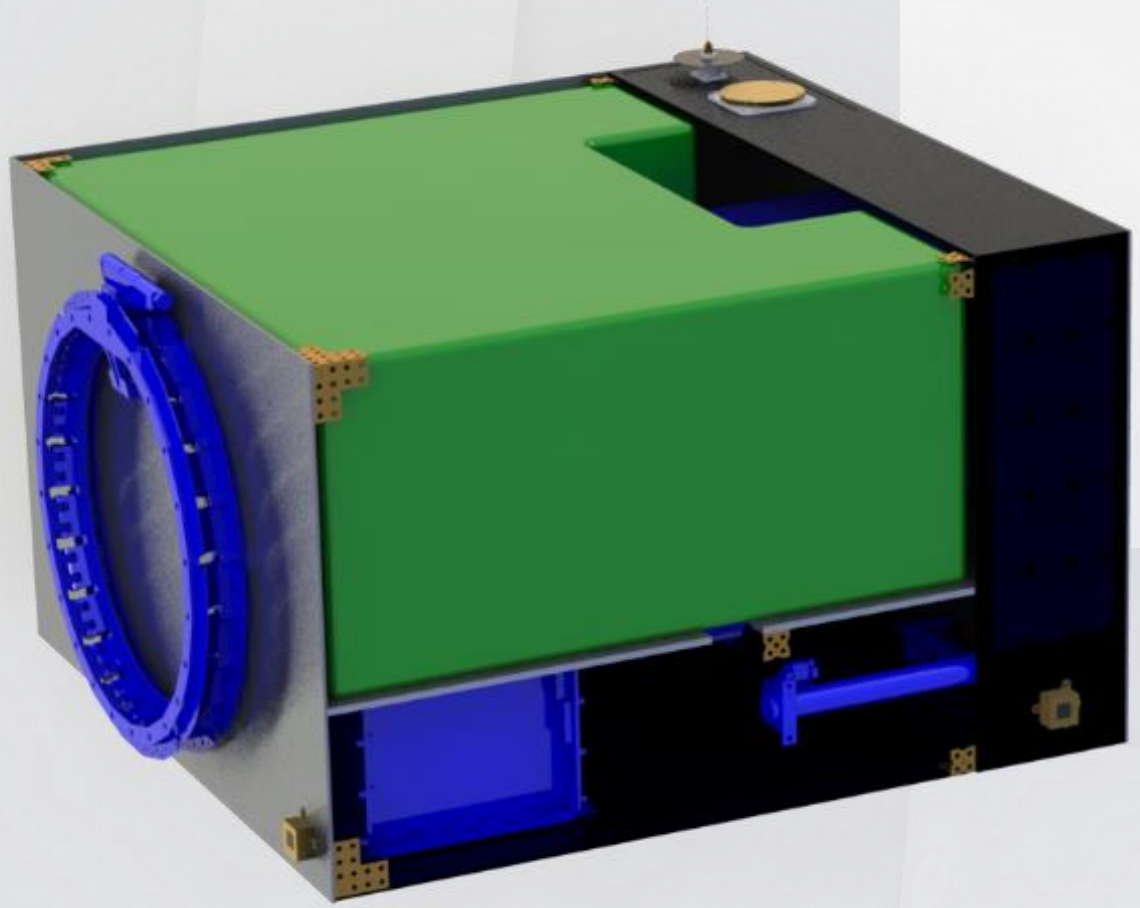
Michael Brown – System Design Lead

Overview

- 100kg ISS-deployed Spacecraft
- Payload hosting for up to 5 years
- Contract to launch in 19 months or less
- Provides notable performance and capability at a fraction of the cost of conventional payload hosting missions
    - $6M –$12M



FeatherCraft (FC-100)



Mission Lifetime: (up to) **5 years**

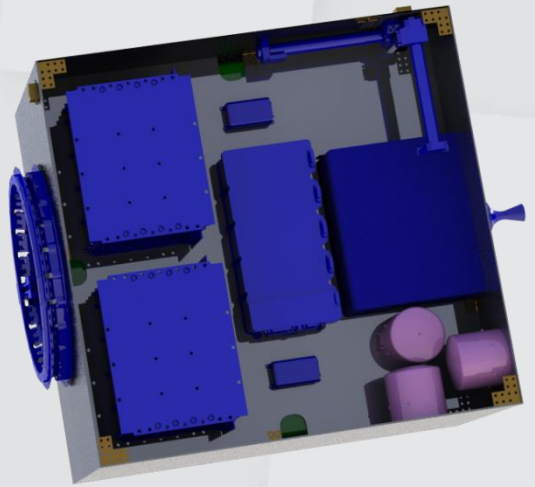
Available Orbits: (up to) **550km**

Payload Mass: (up to) **45kg**

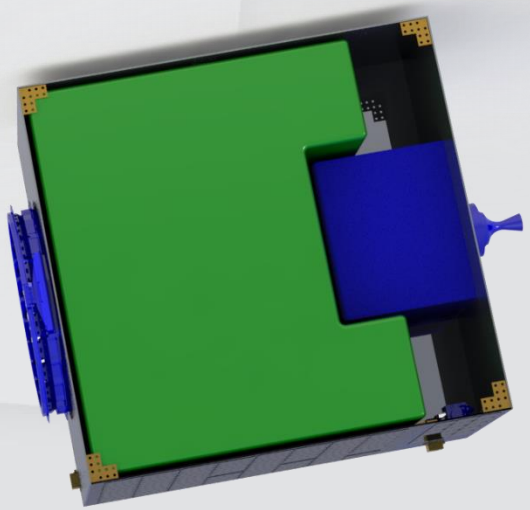
Payload OAP: **50W** (80W peak)

Advantages to using NanoRacks (vs. Conventional ELV)

- Kaber launch:
  - Cheaper
  - 6 launches per year
  - Additional payload volume
  - Lower launch loads
  - Reduced EMC requirements
  - Deployment is video recorded (great PR)



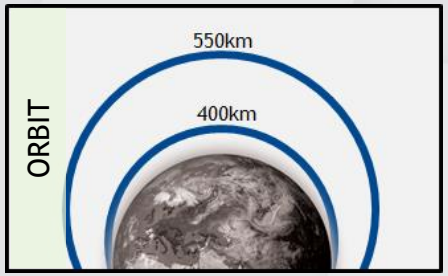
- Differences between FeatherCraft and CubeSat deployment
  - Payload power accommodations
  - Thermal control
  - Data uplink/downlink
  - Propulsion up to 550km
  - Increase lifetime up to 5 years

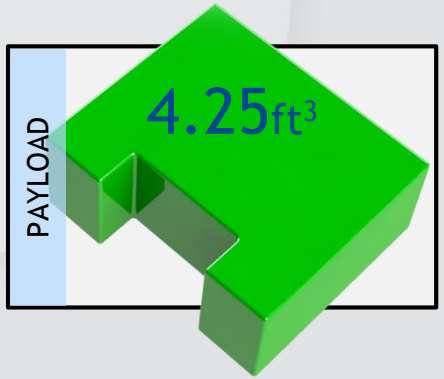


Payload Accommodation/Opportunities

- Optimal for:
  - Science Opportunities
  - Technology Demonstration
  - TRL Maturation
  - Weather Instrumentation

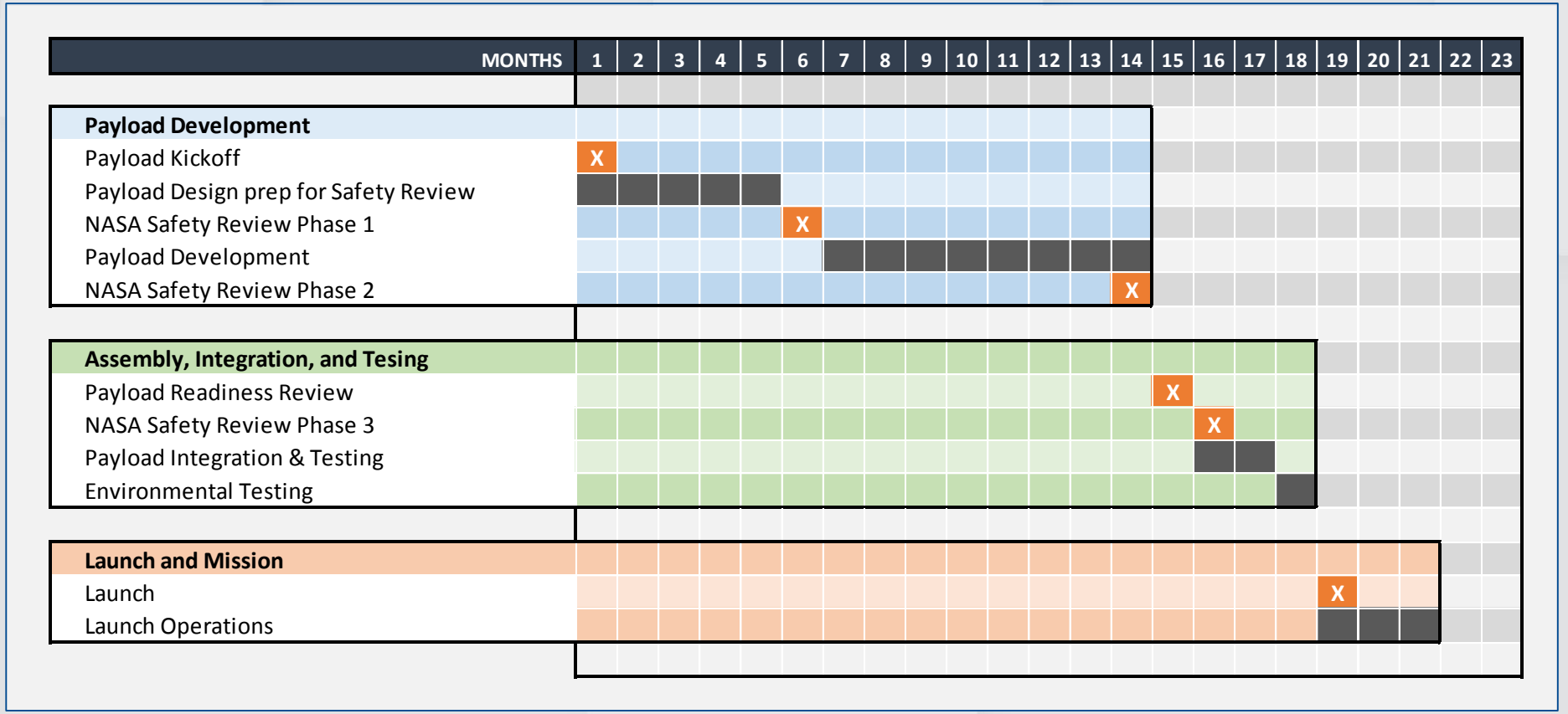
- Accommodations:
  - Multiple orbit options up to 550km
  - Significant payload volume
    - >4ft^3 for multiple payload sizes and configurations
  - Multiple power needs accommodated
    - Deployable array add-ons available
  - Routine data downlink to secure ftp site
  - Cost reduction through ‘a la carte’ performance upgrades





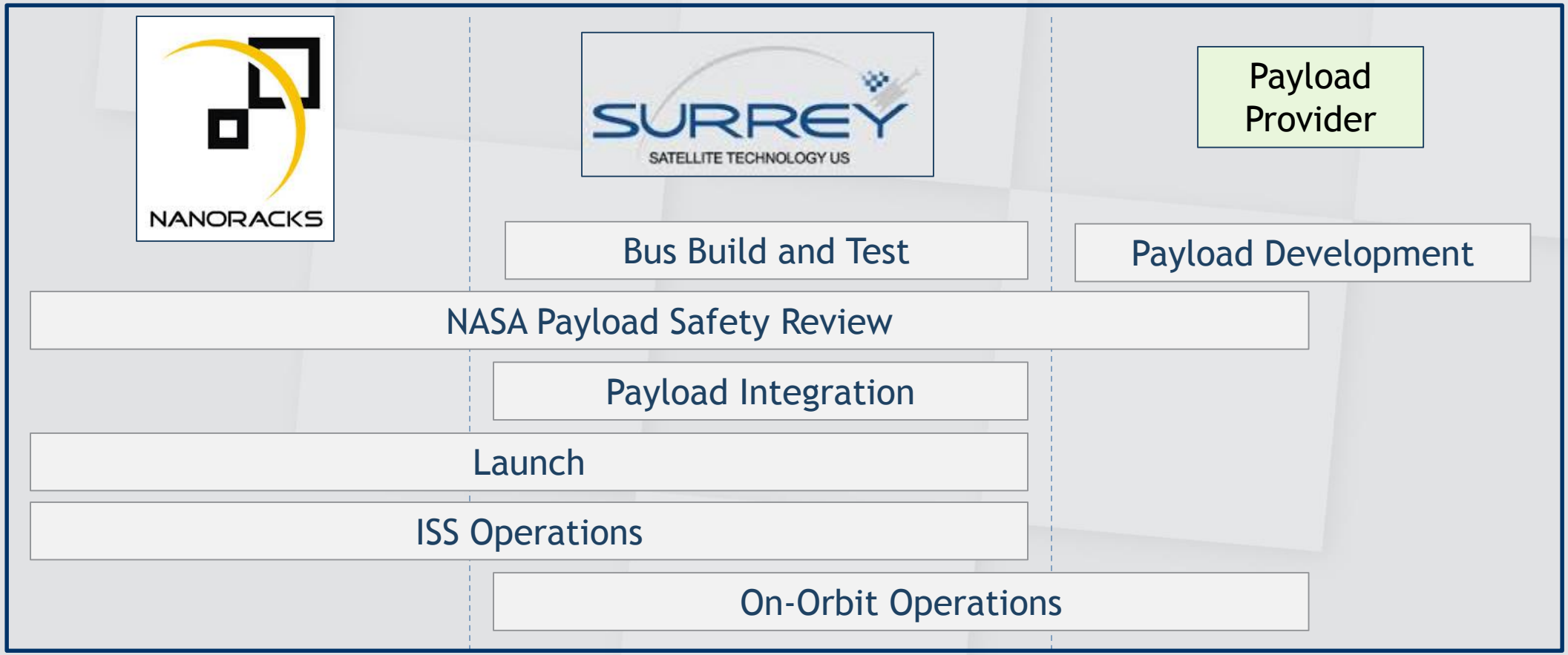
Schedule

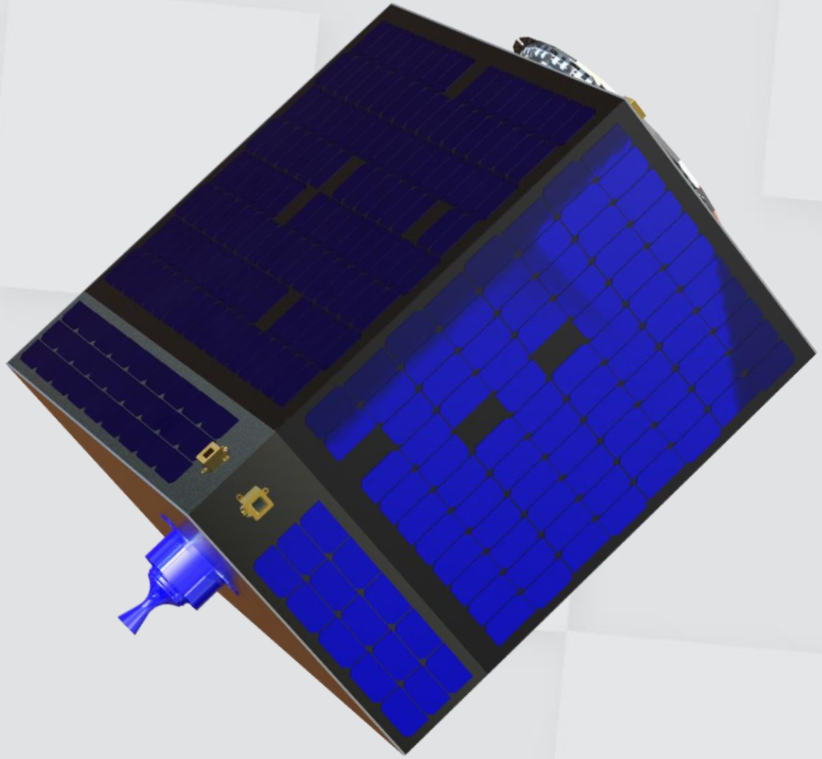
- 16 months to Payload Integration
- 19 months to Launch



Why SST/NanoRacks

- Experience of 43 missions
- SST-US Manufacturing Facility centrally located near Denver, CO
- Logical teaming partnership





Thank you!!!

From Surrey Satellite Technologies!

Michael Brown – System Design Lead