SNC Dream Chaser Rideshare Capabilities
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Dream Chaser CRS2 Missions

- NASA has contracted with SNC a minimum of 6 cargo resupply mission to the ISS on Dream Chaser
- Dream Chaser carries both internal pressurized and external unpressurized Payloads
- For a given missions, NASA could choose to not manifest some of the external payload slots
  - SNC would then be able to sell those locations commercially
- SNC will have the first indication of an available slot L-18 months

- Satellites can be deployed before arrival to ISS or after departure
  - If after departure, the satellite(s) would need to meet NASA safety requirements
- Target orbit parameters:
  - Inclination = 51.6
  - Altitude = 100km – ISS altitude
    - Opportunities to deploy above ISS can be explored with NASA
Cargo Module Accommodations

• The Cargo Module was originally designed to accommodate different cargo configurations to the ISS for unpressurized cargo
  – Can accommodate standard FRAM of JEM-EF payloads
  – Same mounting locations can be used for small satellites and deployment mechanisms

• The Cargo Module accommodates 2 configurations
  – 3 payload locations:
    o Payloads up to 500kg in each location
    o Standard services are 120V power, Ethernet, and video
  – 1 payload location:
    o Up to 1500kg
    o Standard services are 120V power, Ethernet, and video

• The payload can interface with the Cargo Module through the FRAM/JEM-EF interfaces or develop it’s own way to mount directly.
Small Satellite Deployment Concepts

- Externally Mounted on the Cargo Module
  - SNC can provide the separation interface
  - or-
  - The satellite provider can provide the separation interface and mount to the direct mounting locations on the Cargo Module
External Payload Deployment – CubeSats

- Externally Mounted deployer
- Deployed in LEO
- Possible data recording and downlinked
External Payload Deployment – Micro Satellite

- Externally Mounted Micro Satellite
- Satellite deployed in LEO
- Possible data recording and downlinked
Thank you

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