**PDS Document Outline**

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1. Short intro (background):
   1. Getting a ride from NASA to the ISS as part of the CSI (CubeSat Initiative)
   2. Observing cirrus clouds in LEO
   3. Looking to stay alive for 1 year and then be Oregon’s first meteor shower
2. Short explanation: (Katherine)
   1. Thermal analysis on OreSat
      1. Standby
      2. Active
   2. Worst/best case scenarios
      1. Launch phase at free rotation (ie no control over satellite)
      2. Once we have control
   3. Physical verification
3. Mission statement:
   1. Design thermal models of the cubesat that satisfies OreSat team questions+
   2. Evaluate prototype in vacuum chamber
   3. Complete by June
   4. We have a nano-satellite in size (10x10x20)cm
4. Top-level project plan:
   1. Simplify the SolidWorks model
   2. Vacuum chamber Bake-out
   3. Perform thermal analysis in Ansys
      1. Phil Wahl as resource for Ansys modelling
      2. Tretheway is simulation Jesus
   4. Process data in such a way that it remains consistent with theory
   5. Kathleen will be number cruncher
5. Identification of Customers (stakeholder):
   1. PSAS
   2. NASA - for the launch
6. Customer feedbacks and interviews:
7. PDS:

criteria or category -

customer need - Thermal analysis and simulation of the OreSat 2U CubeSat including, but not limited to, system design recommendations, and/or axial spin rate.

Priority - Initial simulations are to begin by February.

engineering metric -

Targets:

-optimal spin rate

-orientation post launch

-thermal efficient design

basis for target selection - Create standby and active thermal budgets.

verification methods if applicable - We will not have a defined verification, however our calculations will be tested via simulations in Ansys

1. Conclusions: (summary of what the document addresses and some of the most important or challenging specification). (Katherine)
2. Attachments