

# MEETING MINUTES

## Topic: CDR Presentation and Hardware Review

Wednesday, February 7, 2018

3:45pm – 5:15pm

Minutes recorded by Brandon Cook

Meeting called by Joshua Smith

Attendees: Joshua Smith, Brandon Cook, Miriam Deschine, Dan Edmonds

Please bring: Laptops

### Executive Summary:

The purpose of this meeting was to check in on material procurement as well as begin outlining the PowerPoint presentation for the CDR with Orbital. The team contacted Arizona Sun Supply about getting more material for Brandon to pick up. They discussed options for the few remaining items that needed to be bought. After discussing materials, the team began the planning and creation of the CDR presentation. Before concluding this meeting the idea of creating a failure mode report to outline what would likely break first and the consequence.

Table 1. Record of meeting.

<b>3:45pm to 4:00pm</b>	<b>Meeting Overview</b> <ul style="list-style-type: none"><li>• Josh asked if Brandon could go pick up more of the HDPE fabric from Arizona Sun Supply</li><li>• Miriam emailed Eric Quan, the contact at AZ Sun Supply, to see when he will be available for picking up material.</li><li>• Team discussed the hardware that is still needed for the prototype: bolts for hinges, base plates, and caster axles.</li></ul>	Rm 120
<b>4:00pm to 5:00pm</b>	<b>CDR Presentation Outline</b> <ul style="list-style-type: none"><li>• Josh pulled up the requirements that Steven wanted to see in the CDR presentation.</li><li>• The team opened up the PDR presentation to see if there was any relevant information that should be included again in the CDR such as project description and the three designs considered last semester.</li><li>• A new PowerPoint was created and the team outlined the presentation with topics, headings, and the order in which we want to discuss things.</li><li>• Josh created a list of tasks that need to be completed and made a check list of materials acquired/on way/need bought</li><li>• Created a list of the analyses that has been or needs completed.</li><li>• Discussed testing procedures that have been and need to be done.</li><li>• Dan talked about the possibility of generating a report of failure modes so we can list what would likely break first and what that would do to the structure.</li></ul>	Rm 120

	<ul style="list-style-type: none"> <li>• Talked about how we can use aerodynamics to try to find the force generated from wind flow around the enclosure. Would be a cylinder in a flow problem. Possibly talk to Dr. Acker</li> <li>• Decided that the team will discuss heat transfer, permeability, force/stress, degradation, wind load, and deflection analysis during CDR.</li> <li>• Discussed trying to make it so that guy wire breaks before carbon fiber breaks as a failsafe.</li> <li>• Discussed making break away sections of the fabric so at certain high winds the fabric will break and allow wind to pass through as fail safe.</li> </ul>	
<b>5:00pm to end</b>	<b>Plan for next meeting</b> <ul style="list-style-type: none"> <li>• The next meeting will be held Monday, February 12</li> <li>• We will be meeting to finish CDR</li> </ul>	Rm 120

**Table 2. Tasks Assigned.**

<b>Task</b>	<b>Person Assigned</b>	<b>Due Date</b>	<b>Date Complete</b>
Meeting Minutes	Brandon Cook	ASAP	
Update Website	Dan Edmonds	ASAP	
Prepare Budget, UV Degradation, Sewing fabric, Testing permeability	Miriam Deschine	2/12/18	
Prepare Permeability and heat flux analysis	Josh Smith	2/12/18	
Prepare Wind Load analysis	Dan Edmonds	2/12/18	
Prepare force/stress analysis and CAD images for CDR	Brandon Cook	2/12/18	

**Next formal meeting: 2/12/2018, Engineering, at 3:35pm.**