



HASP MONTHLY STATUS REPORT – CRESS

Friday July 29, 2016

Current team members, demographics, and leaders

Team Lead: Austin Schmitz - Undergraduate, University of Florida.
Engineering Advising: Eric Schultz - Post Doc, University of Florida, UF Fabrication Lab
Biological Assistance: Ana Ward – Undergraduate, University of Florida
PIs: Dr. Robert Ferl – ICBR, Horticultural Sciences, PMCB, University of Florida
Dr. Anna-Lisa Paul – Horticultural Sciences, PMCB, University of Florida

Advancements

Pressure Testing

Initial pressure testing proved the containment vessel is capable of containing 1 atmosphere of pressure when subjected to a 170 mbar environment for 25 hours. A follow up test was performed at NASA KSC which subjected the containment vessel to a 0.045 mbar environment. The containment vessel behaved comparable to the initial test. The internal pressure environment of the containment vessel was recorded for the 8 hours leading up to and the 8 hours following low pressure testing at KSC. It has been determined that external temperature has a far greater impact on the internal pressure compared to the external pressure. When placed within a refrigerator for 5 hours the vessel experienced a drop of 50 mbars as compared to a drop of 20 mbars when subjected to a 0.045 mbar external pressure environment. These drops in pressure, whether from external temperature or external pressure, are insignificant and their effects lie well within the pressure bounds for the success of the primary mission goal.

Flight Operations Plan

We worked on and determined our flight operations plan. See FLOP document.