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SpaceOps 2010 Abstract Form

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Keywords: (add keywords that describe your topic)

Failure Analysis, Metallurgy, Materials Science

Your Abstract Title: (Should be the same as your online submission and your future manuscript title – 12 word limit)

Failure Analysis at the Kennedy Space Center

Your Author list: (each author's name and affiliation)

Victoria Salazar, NASA Kennedy Space Center; M. Clara Wright, NASA Kennedy Space Center

Your Abstract text:

History has shown that failures occur in every engineering endeavor, and what we learn from those failures contributes to the knowledge base to safely complete future missions. The necessity of failure analysis is at its apex at the end of one aged program (i.e. Shuttle) and at the beginning of a new and untested program (i.e. Constellation). The information that we gain through failure analysis corrects the deficiencies in the current vehicle to make the next generation of vehicles more efficient and safe. The Failure Analysis and Materials Evaluation section in the Materials Science Division at the Kennedy Space Center performs metallurgical, mechanical, electrical, and non-metallic failure analysis and accident investigations on both flight hardware and ground support equipment (GSE) for the Shuttle, International Space Station, Constellation, and Launch Services Programs. This presentation will explore a variety of failure case studies at KSC and the lessons learned that can be applied in future programs.