Additive Manufacturing Infrared Inspection

**Project Manager(s)/Lead(s)**

Darrell Gaddy/ER43  
(256) 544–0198  

Mindy Nettles/XP50  
(256) 544–1569

**Sponsoring Program(s)**

Human Exploration and Operations Mission Directorate  
Space Launch System Advanced Development

**Project Description**

The Additive Manufacturing Infrared Inspection Task started the development of a real-time dimensional inspection technique and digital quality record for the additive manufacturing process using infrared camera imaging and processing techniques. This project will benefit additive manufacturing by providing real-time inspection of internal geometry that is not currently possible and reduce the time and cost of additive manufactured parts with automated real-time dimensional inspections which deletes post-production inspections.

**Notable Accomplishments**

The task successfully proved the feasibility of infrared hardware detecting an additive manufacturing process and developed custom software which created 3D geometry files of the additive manufactured part.

**References**