NASA SBIR 2009 Phase I Solicitation

S4.06 AI&T Planner and Scheduler

Lead Center: ARC

Proposals are sought for the development of a software tool (or suite of integrated tools) to assist in the planning, scheduling, and operations activities that occur during small spacecraft Assembly, Integration and Test (AI&T). AI&T is a complex period for small spacecraft with many different procedures, dependencies, operations, and tests occurring in parallel. To streamline the process and ensure compliance with mission and science requirements, NASA is interested in a software tool to support planning, scheduling, and management of the small spacecraft AI&T flow. The tool must be scalable for a variety of different mission and spacecraft classes from nanosatellites, which are typically secondary payloads weighing around 5 - 10 kg, up to primary sciences missions, which may weigh more than 100 kg.

Proposals are sought for the development of an AI&T tool with the following capabilities:

- Resource(s) availability determination and planning function
  - Facilities
  - Personnel
  - GSE
- Requirement mapping for qualification tests along with verification and validation functions
- Compatible with NASA proposal development processes to assist in a Phase A schedule and cost generation for the AI&T flow
- Compatible with NASA NPR 7120.5D Program and Project planning requirements