NASA SBIR 2006 Phase I Solicitation

A4.02 Test Techniques and Facility Development

Lead Center: GRC

Participating Center(s): ARC, LaRC

NASA is concerned with continually improving on the efficiency and effectiveness of operation of its ground test facilities. NASA strives to operate its facilities in such a way as meet the requirements of the NASA research and development efforts into new and novel means of removing barriers to safe and efficient flight and to the exploration of space. To do so requires the use of state-of-art test techniques and creative facility performance capability enhancements. NASA is seeking highly innovative and commercially viable test techniques and facility performance technologies that would increase efficiency and effectiveness or overcome research and development technology barriers for ground test facilities.

Solutions are being sought in the areas of improvements in facility performance capabilities, e.g., expanded operating envelope, and enhanced or rapid characterization of facility performance. Solutions are also sought that are facility specific. Examples of facility specific projects include:

- Improved dynamic (forced oscillation) test capability at transonic and supersonic speeds;
- Improved flow transition detection methodologies;
- Modeling and simulation of high ice water content conditions.

The above are listed as examples only and should not be interpreted as the only areas of test technique and facility development innovative research proposals being sought.

Proposals that lead to products or processes that are useful across multiple facility classes are especially important. The proposals will also be assessed for their ability to develop products that can be used in government-owned, industry and academic institution aerospace ground test facilities.