RFI- CARBON FABRIC STITCH DEVELOPMENT
NASA AMES RESEARCH CENTER
NNA13STITCH-L

QUESTIONS AND ANSWER SET 1

Q1. Ref: Carbon Thread Stitching Design Trade Study (Section A) "Batches of small-scale carbon fabric samples (~3 inch wide by 9 inch length) possessing the required design features will be evaluated and structural assessment parameters identified." Question: Due to potential edge effects, the sample size of three (3) inches wide by nine (9) inches in length may be difficult to test, would NASA ARC consider increasing the width to six (6) inches?

A1. While we recognize edge effects may contribute significantly to test results, the initial task's purpose is to down select stitch designs to carry forward for further detailed evaluation on larger samples. NASA ARC has successfully developed test methods specifically for 3-inch wide stitch samples that allows us to accomplish the goal of stitched seam strength evaluation.

Q2. Ref: "NASA will provide the carbon fabric articles for design, test and evaluation of various stitch designs." Question: Does this include the carbon thread?

A2. No. Thread type and design is a key parameter and we are seeking innovative solutions from responders to this RFI in order to determine the current state of practice in this emerging technology area.

Q3. Ref: "The outcome of this study is expected to be the down-select of a primary and alternate stitch design to carry forward (if an acceptable contract is negotiated) for further testing and development." Questions: (a) What are the anticipated number of stitch design concepts/configurations? (b) How many samples per configuration does ARC desire for testing?

A3. a) Responders are encouraged to propose as many designs as possible at this stage and describe the merits of each type. The study's goal is to encourage innovative solutions to a demanding problem, thus, we'd rather not limit the number of concepts in response to the RFI.
b) Three samples of each type would be desired for testing.

Q4. Does ARC have a desired period of performance for Task A Carbon Thread Stitching Design Trade Study and Task B Stitch Scalability and Testing Development (Contract Option)?

A4. Task A period of performance would likely be 3-6 months, while Task B could be a longer term (9-12 month) period of performance.