

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION (JOFOC)

Robust Design of Embedded Engine Systems:

1. **This document is a justification for other than full and open competition prepared by the NASA Glenn Research Center.**
2. **The nature and/or description of the action being approved:**

This justification provides the rationale for negotiating only with United Technologies Research Center (UTRC) to perform the Statement of Work as defined in contract # NNC07CB59C which is to be modified with this requested action. This requested modification is to extend the period of performance by 18 months and revise the Statement of Work to reflect the corresponding schedule and technical content.

3. **Description of the supplies or services required, include an estimated value:**

UTRC will complete work (i.e. resolve and closeout action items from the aero design review) on the aerodynamic design of an inlet and distortion-tolerant fan for a high-performance embedded engine configuration. UTRC will perform mechanical design and fabrication of an inlet and distortion-tolerant fan test hardware to be delivered to NASA, as was defined in the original scope of the contract. The added cost to perform the additional work effort associated with the aero design review is estimated to be \$250K.

4. **Statutory authority permitting other than full and open competition:**

The statutory authority permitting other than full and open competition is 10 U.S.C. 2304(c)(1), only one responsible source and no other supplies or services will satisfy Agency requirements.

5. **A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires use of the authority cited:**

UTRC has been performing the tasks associated with this Statement of Work since the contract was originally competitively-awarded in 2007. In the past year, the aerodynamic design of the novel, first-of-a-kind distortion-tolerant fan stage presented several technical challenges that the team has had to work through before moving forward. The time needed by NASA to understand and to resolve these challenges halted UTRC's progress on the contract. These challenges significantly impacted the schedule thus requiring this extension to the period of performance. The technology being developed under this contract is a very high priority to NASA's Fixed Wing project. The tasks defined in the Statement of Work must be completed, and the hardware

deliverables must be provided for NASA to complete the Level 2 project milestone associated with the wind tunnel testing of these articles.

6. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable:

The following exception under FAR 5.202 applies: (11) The contract action is made under the terms of an existing contract that was previously synopsisized in sufficient detail to comply with the requirements of 5.207 with respect to the current contract action.

7. Description of the market survey conducted, and the results, or a statement of the reasons a market survey was not conducted:

A description of this requirement will not be posted to the NASA Acquisition Internet Service/FedBizOpps. The following exception under FAR 5.202 applies: (11) The contract action is made under the terms of an existing contract that was previously synopsisized in sufficient detail to comply with the requirements of 5.207 with respect to the current contract action.

8. Other facts supporting the use of other than full and open competition:

This effort is the result of a previously-competed NASA Research Announcement (NRA) solicitation. The organization that has been performing this work to date (UTRC) is best suited to complete it in the extended time being requested through this contract modification.

9. Sources, if any, that expressed an interest in writing in the acquisition:

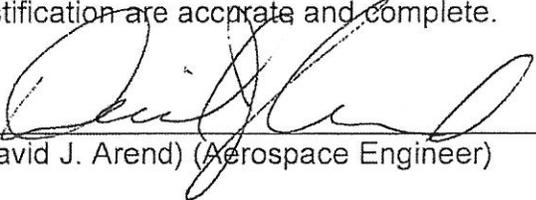
No other sources expressed an interest in this SOW modification or contract extension.

10. The actions the agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required:

No action is being taken to remove or overcome barriers to competition for any future procurement because this effort is the result of a previously-competed NASA Research Announcement (NRA) solicitation.

Robust Design of Embedded Engine Systems:

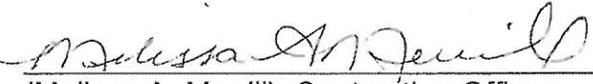
Technical Officer: I certify that the supporting data presented in this justification are accurate and complete.



(David J. Arend) (Aerospace Engineer)

2/21/13
(Date)

Contracting Officer: I hereby determine that the anticipated cost to the Government will be fair and reasonable and certify that this justification is accurate and complete to the best of my knowledge and belief.



(Melissa A. Merrill), Contracting Officer

2/21/13
(Date)