

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LYNDON B. JOHNSON SPACE CENTER**

**JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION
PURSUANT TO 10 U.S.C. 2304(c) (1) and
FEDERAL ACQUISITION REGULATION (FAR) 6.302-1**

- 1. This document is a Justification for Other than Full and Open Competition (JOFOC) prepared by the NASA Johnson Space Center (JSC), Houston, Texas.**

- 2. The nature and/or description of the action being approved:** This justification provides the rationale for contracting by other than full and open competition for the acquisition of a Nikon Metrology, Inc. 320kV micro-focus X-ray source and associated power supply, control console, vacuum pump, and cables. This acquisition will utilize simplified acquisition procedures under the authority of the test program for commercial items at 41 U.S.C. 1901 pursuant to FAR 13.5.

- 3. Description of the supplies or services required, include an estimated value:** NASA's Materials and Processes Branch (ES4) Nondestructive Evaluation (NDE) Laboratory has a requirement to acquire a 320kV micro-focus x-ray source for high resolution computed tomography (CT) inspection of parts and assemblies that cannot be inspected with the Laboratory's 150kV micro-focus X-ray source due to their size or material composition. In particular, large Li-Ion battery cells which cannot be penetrated by 150kV X-rays and require imaging of internal features in the 20 to 50 micron range.

The estimated value for this effort is \$226,000. The anticipated period of performance will be July 22, 2014 through September 22, 2014.

- 4. Statutory authority permitting other than full and open competition:**
The statutory authority permitting other than full and open competition for this action is FAR 6.302-1(b)(1)(ii). There is reasonable basis to conclude that the agency's minimum needs can only be satisfied by a unique supply available from only one source.

- 5. A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires use of the authority cited:** Nikon Metrology, Inc. is the only known source for a 320kV micro-focus X-ray source for high resolution CT.

- 6. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable:** A synopsis for this effort will be issued on the NASA Acquisition Internet Service.

- 7. Description of the market research conducted, and the results, or a statement of the reasons why market research was not conducted.** An online survey of twelve leading X-ray source manufacturers indicated that Nikon Metrology, Inc. is the only company that produces a 320kV micro-focus X-ray source. The finding was supported by a sales representative from National X-ray Corp, a distributor of X-ray inspection equipment, who stated that Nikon is the

only source of 320kV micro-focus tubes known to them. Additionally, a search of the U.S. General Services Administration's website revealed no alternate sources.

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

9. Sources, if any, that expressed an interest in the acquisition: No other sources have expressed an interest in this acquisition.

10. The actions, if any, the Agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required: The Agency will continue to review relevant technical journals, Government and commercial data bases, and internet resources for alternate suppliers of 320kV micro-focus X-ray sources.