

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
GLENN RESEARCH CENTER (GRC)  
CLEVELAND, OHIO**

**JUSTIFICATION FOR AN EXCEPTION TO FAIR OPPORTUNITY**

PR 4200527768

**I. Description of Requirement**

I recommend that GRC issue a modification for new work under Task Order NNC13TA45T with Pratt and Whitney (P&W) Commercial under Contract No. NNC10BA12B for essential spare parts which are required for the success of the upcoming Phase II Arc Sector Research tests that will be performed in the NASA GRC Advanced Subsonic Combustor Rig (ASCR) and also the United Technologies Research Center (UTRC) Full Annular Rig while under the Environmentally Responsible Aviation (ERA) program in FY14 and FY15. These proposed parts are crucial for test hardware buildup, ASCR test facility integration, checkouts, and spare requirements to mitigate potential down-time, to reduce unexpected replacement costs in the middle of a testing cycle, and to keep the project milestone's on schedule and within budget during a very tight timeframe throughout the final stages of the ERA Fuel Flexibility program which is focusing upon reducing NOx emissions while using alternative fuels.

The proposed estimate of this requirement is \$382,009 and the entire amount of funding will be put towards all of the proposed hardware which will be procured and received by Pratt & Whitney while under Task Order No. NNC13TA45T prior to being delivered to NASA GRC in September 2014. Some parts listed on the proposal are sensitive to Pratt & Whitney's combustor design can only be procured through their external partnerships.

**II. Regulatory Basis for Exception to Fair Opportunity**

The regulatory exception permitting other than fair opportunity is:

FAR 16.505(b)(2)(i)(B)- Only the aforementioned contractor is capable of providing the necessary supplies or services at the level of quality required because the supplies or services are unique or highly specialized.

**III. Rationale In Support of Statutory Authority**

- All spare parts are research critical and custom designed for P&W combustor hardware and are of proprietary nature.

- Spare parts are fabricated solely by P&W partners due to proprietary new designs and cannot be made by any other company.
- To mitigate potential hardware failure down-time during research tests, spare parts must be ordered immediately due to their intricate designs and long lead times for fabrication.
- Spare parts are required for testing at both NASA GRC sector and at P&W/ (UTRC) sector and full annular test facilities under the ERA program.
- Waiting to purchase some of the spare parts on this proposal will cause significant testing delays due to long lead items, and will also cost GRC additional funding to procure P&W sensitive hardware that will also delay the milestones which is not acceptable for this project.
- Spare parts being procured by P&W-are with an existing partner in which has already fabricated the first set of parts to P&W specifications. Going to an external company will not be in the best interest of the Government as the parts need to be within strict tolerances and fabricated by the same company. Choosing another company to perform the fabrication of these parts will not only cause a significant time delay, but could also be cost prohibitive when not fabricated correctly. The partner that P&W is working with to fabricate these spare parts has extensive experience with these parts and is very successful at creating high quality hardware.
- The spare parts listed by P&W are the minimal required parts that must be ordered to mitigate potential delays in the Phase II research tests at these final stages of this program which would be detrimental to the overall project success.
- This current estimated modification of \$382,009 for spare parts is of minimal costs compared to the overall 3-year, \$39M project that is in its final most important year in regards to research success.

#### **IV. Determination of Fair and Reasonable Cost**

The contractor will be required to submit adequate cost support data, and an analysis will be performed to determine the costs as fair and reasonable.

#### **V. Actions to Remove or Overcome Barriers to Competition**

P&W and UTRC are the sole designing companies that have intricately designed their proprietary combustor hardware and components to meet NASA GRC's test facilities and research requirements and also federal aviation requirements. Both P&W/UTRC are highly specialized in the design and fabrication of combustor hardware components along with numerous aviation design criteria that exists in the combustion environment. This exception to fair opportunity exists due to the fact that P&W/UTRC are the sole providers of these spare parts for the current combustor configuration and no other company is able to provide these parts of proprietary nature at this time.