

JUSTIFICATION FOR SOLE SOURCE (Simplified Acquisitions <\$150K)

The service or material listed on N6588616RX6A378 is sole source and competition is precluded for reasons indicated below. There are no substitutes available for this material or service.

**Restricted to the following source.** Provide *original manufacturer's* name. (If a sole source manufacturer distributed via dealers, ALSO provide dealer information.)

Manufacturer: Woodward Governor Company

Manufacturer POC & phone number: Thomas Stinson (815) 639-6963

Mfr. Address: 5001 N 2<sup>nd</sup> Street, Love Park, IL 61111-5808

Rep: Thomas Stinson

Rep phone number: (815) 639-6963

Description of the item or service required, the estimated cost, and required delivery date.

The contractor shall inspect, repair, calibrate, test and recertify the provided Gold Standard TF34 Main Fuel Control, P/N 6040T09P02 / 8062-354 and the Gold Standard Jump and Rate Limiter, P/N 5225-086. Both units shall be adjusted to perform within nominal performance specifications required for acceptance on each test bench at the contractor's site. Estimated cost for the Main Fuel Control recertification is \$54,000.00, and the estimated cost for the Jump and rate Limiter is \$3000.00 for a total of \$57,000. Required delivery date is 90 days after the contractor receives each unit.

Specific characteristics of the material or service that limit the availability to a sole source (unique features, function of the item, etc.). Describe in detail why only this suggested source can furnish the requirements to the exclusion of other sources.

Safety of Flight: On 27 March 2008, an A-10 aircraft crashed due to a TF34 engine failure. This resulted in a long running technical evaluation of all TF34 engine components. This evaluation produced several new re-work requirements for the engine. These have been implemented over time; however, the A-10/TF34 continue to experience compressor stalls (i.e. loss of power) resulting in "In Flight Shut-downs." While these stalls have yet to result in loss of additional aircraft, they have caused squadrons to repeatedly abort combat support missions and impose a safety of flight issue. After investigation by both Air Force and FRCSE engineers, it was determined that the Main Fuel Controls (MFCs), part of the fuel control system, were failing at a higher rate and the proper course of action was to have the Original Equipment Manufacturer (Woodward) overhaul Main Fuel Controls (MFCs) in a more robust manner during overhaul. Currently the MFC piece-parts are replaced on an "as needed" basis by the OEM during overhaul. To alleviate this safety of flight issue, the Air Force issued a directive in April 2012 that requires 100% replacement of all Main Fuel Control piece-parts during overhaul. FRCSE does not have the capability to repair Differential Pressure Pilot Valve Assembly (DPBAs) and

Variable Geometry Fuel Housing Assembly (VGFHAs), or certify/recertify Fuel Control Assembly (FCAs) and Jump in Rate Limiter Assembly (JRLAs).

Only one responsible source: The TF34 fuel control components are only available from the Original Equipment Manufacturer (OEM) - Woodward Governor who is the sole manufacturer of these components. All repair manuals and part prints are proprietary and solely owned by Woodward Governor. The parts required for the components of the fuel control system, of which the MFCs are a part of are also protected by Woodward Governor's proprietary rights. The Government cannot authorize manufacture of these parts by any other source or request reverse engineering of those parts. There are no other authorized providers to perform factory authorized overhaul and repairs.

Woodward Governor has granted FRCSE limited use of their technical information necessary to overhaul the TF34 MFCs, but did not give the Government access and/or rights to their repair manuals or prints. Woodward only supplied technical information (that cannot be shared) to FRCSE so they can develop technical orders (T.O.) 2J-TF34-4 and T.O. 6J3-4-106-4, both of which have been approved by Woodward. The Government cannot share this information with others in effort to obtain other sources of repair for these components. In accordance with technical order (T.O.) 2J-TF34-4 with Change 18, dated 23 Aug 2012, Figure 034, the MFC manufactured by Woodward Governor is the only MFC authorized for installation on the TF34-GE-100. In accordance with T.O. 6J3-4-106-4, with Change 2, dated 15 Feb 2012, the VGFHA, the DPBA, and the JRLA manufactured by Woodward Governor are the only components authorized for use in the TF34 fuel control system.

The requested material or service represents the minimum requirements of the government.

The material/service must be compatible in all aspects (form, fit and function) with existing systems presently installed/performing. Describe the equipment/function you have now and how the new item/service must coordinate, connect, or interface with the existing system.

The recertified Gold Standard Main Fuel Control and Jump and Rate Limiter will be returned to the FRCSE Jacksonville to be retested on the three (3) test benches and subsequently used as a correlation unit to ensure all main fuel controls repaired and tested at the FRCSE are flowing fuel at both low and high flow accel/decel jump nominal fuel flow rates. This will ensure all outgoing main fuel controls are properly repaired, calibrated, and trimmed to provide nominal fuel flow schedules for all US Air Force TF34-GE-100A Turbofan engines installed in the A-10 Warthog aircraft.

A patent, copyright or proprietary data limits competition.

Woodward Governor drawings and prints used during the recertification procedures and processes are proprietary to Woodward Governor. No other company or contractor has access to these proprietary specifications, flow rates or accel/decel jump rate testing procedures to recertify the main fuel control and jump and rate limiter.

These are "direct replacements" parts/components for existing equipment.

X  Other information to support a sole source buy:

General Electric, the engine OEM, specifies that Woodward Governor is the only approved source to be used for the main fuel control and jump and rate limiter recertification.

I CERTIFY THAT STATEMENTS CHECKED, AND INFORMATION PROVIDED ABOVE, ARE COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THE PROCESSING OF THIS SOLE SOURCE JUSTIFICATION PRECLUDES THE USE OF FULL AND OPEN COMPETITION.

Signature: Paul Maden

Title: TF34 Logistics Manager

Activity: FRCSE Jacksonville, FL

Date: 14 July 2016

-----  
Contracting Officer Signature

W. Anderson

Date Aug 10, 2016  
SAP Sole Source