



# DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND  
1333 ISAAC HULL AVE SE  
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY TO

J&A No: 40,850  
Code: SEA 02411  
PR No: N00024-11-NR-57030

## JUSTIFICATION AND APPROVAL FOR USE OF OTHER THAN FULL AND OPEN COMPETITION

### JUSTIFICATION

#### 1. Contracting Activity

The Naval Sea Systems Command Fleet Support Contracts Division (SEA 024).

#### 2. Description of the Action Being Approved

Award of a firm fixed price contract on a sole source basis for the procurement of ETF40B Marine Gas Turbine (MGT) Engine Systems and repair/refurbishment of Government Furnished Property (GFP) Output Group Modules (OGM) to Vericor Power Systems, 3625 Brookside Pkwy, Suite 500, Alpharetta, Georgia 30022. ETF40B MGT Engine Systems will be incorporated by the SLEP contractor in the engine systems in support of Landing Craft Air Cushion (LCAC) Service Life Extension Program (SLEP).

#### 3. Description of Supplies/Services

This Justification and Approval (J&A) provides for the procurement of sixteen (16) ETF40B MGT Engine Systems in FY2012, with options for an additional sixteen (16) ETF40B MGT Engine Systems in FY2013 and in FY2014. The period of performance for this contract is through June 2015. The Government's minimum needs have been verified by the certifying technical and requirements personnel.

#### Estimated Dollar Value

	FY12	FY13	FY14	Totals
SCN	\$24.0M	\$25.0M	\$26.0M	\$75.0M
TOTALS	\$24.0M	\$25.0M	\$26.0M	\$75.0M

4. Statutory Authority Permitting Other Than Full and Open Competition

10 U.S.C. 2304(c)(1). Only one responsible source and no other supplies or services will satisfy agency requirements.

5. Rationale Justifying Use of Cited Statutory Authority

This is a follow-on contract for highly specialized equipment to replace the existing TF40B MGT engine with the Enhanced TF40B (ETF40B) MGT engine, a key component of the LCAC SLEP. MGT engines are highly complex, rotating machines and consist of thousands of integrated mechanical and electrical components. As a result, contractors working in this field must possess extensive unique capabilities. Honeywell International is the Original Equipment Manufacturer (OEM) for the ETF40B MGT engine. Vericor Power Systems (VPS) is the successor in interest to the OEM with proprietary data rights to the ETF40B MGT engine configuration and drawings. The ETF40B MGT engine was developed using only contractor IR&D funding. The USN has only limited data rights in the ETF40B MGT engine design. Currently a one-for-one replacement for the ETF40B MGT engine is not available.

The LCAC SLEP configuration provides the Fleet with enhanced craft capabilities necessary to accomplish current LCAC missions. Additionally, LCAC SLEP extends the service life of the craft from 20 to 30 years, sustains/enhances craft capability, replaces obsolete electronics, repairs corrosion damage, reduces life cycle cost by improving reliability and maintainability, increases survivability, and establishes a common configuration baseline. The ETF40B MGT engine is incorporated into SLEP LCAC with limited modifications to craft systems. The ETF40B MGT engine has the same footprint as the legacy TF40B engine and structural supports mate directly up to existing LCAC fuel, start air, drive train gearboxes, and inlet air and exhaust systems. The ETF40B MGT utilizes a Full Authority Digital Engine Control (FADEC) which is also fully integrated with the existing LCAC Control Alarm and Monitoring System (CAMS).

The ETF40B MGT engine has also been USN qualified for use as a MGT engine on LCAC. Currently, a USN qualified alternative to the ETF40B MGT engine does not exist. Existing engines with approximately the same size and power rating of the ETF40B MGT engine would need to be qualified before their use on LCAC. Extensive Research, Development, Test and Evaluation (RDT&E) funding would be required to

qualify an alternative engine for LCAC. In addition, major system modifications would be required to the existing LCAC engine exhaust system, fuel system, structure, bleed air anti-icing system, inlet air system, and drive train interface to accommodate an alternate engine.

VPS is the only contractor permitted to manufacture the ETF40B MGT engine under licensing agreements with the OEM. The USN discussed the possibility of competing for the FY 2008/2009 ETF40B MGT engines with Honeywell International. Via a letter to the Contracting Officer dated 12 December 2007, Honeywell declined to participate in a competition. Honeywell International owns the proprietary ETF40B MGT engine drawings and has licensed the use of those drawings to VPS. Under the terms of this license, Honeywell agreed not to compete with VPS using the ETF40B MGT engine or a similar engine in its power class. It would be cost prohibitive to acquire the rights to ETF40B MGT engine drawings. In addition, both corporations have established business relationships and Long-Term Agreements (LTAs) with a multitude of sub-vendors that provide hardware and materials required to manufacture the ETF40B MGT engine. Established relationships lead to a lower component cost and reduced lead time for hardware and materials needed for the manufacture of an ETF40B MGT engine.

A Market Survey was conducted in 2008 for the Ship-to-Shore Connector (SSC) design, the next generation LCAC, during trade study analysis and set-based design (SBD). The Market Survey, referenced in the NAVSEA 05D "SSC Machinery Systems Set Based Trade Study Report" document, resulted in four engines options that met LCAC power requirements. Two of the engines, the GE38 and the Rolls Royce (RR) AE1107, would require a complete redesign of the machinery module in order to install on the LCAC. The GE38 and RR AE1107 would also require an extensive non-recurring engineering effort to marinize and certify. The remaining two engines, the VPS TF60B and the Pratt & Whitney (P&W) ST40M, meet LCAC power requirements; however, they have not been qualified for LCAC application. The time, cost and risk associated with the testing, integration, validation and qualification necessary to establish an alternative engine is estimated to take approximately five years with a cost of \$50M. A five year delay in delivery of LCAC engines would have a major detrimental impact to the execution of the LCAC SLEP, currently programmed through 2018. At present, these four engine options have not been qualified for LCAC application.

6. Description of Efforts Made to Solicit Offers from as Many Offerors as Practicable

The proposed contract was synopsisized on the Federal Business Opportunities (FEDBIZOPS) website on 26 October 2011 and no other offeror has expressed interest. No additional market research was conducted because it is not practicable, for the reasons discussed in paragraph 5 above, for any company other than VPS to provide the required supplies and services.

7. Determination of Fair and Reasonable Costs

The Contracting Officer has determined that the anticipated cost to the Government for the supplies/services covered by this J&A will be fair and reasonable.

8. Actions to Remove Barriers to Competition

VPS, successor in interest to Honeywell International, currently has a Technology License Agreement with Honeywell International related to the proprietary rights to the ETF40B MGT engine drawings. The Technology License Agreement provides license for all intellectual property used in licensed engines, including the ETF40B, in the "field of use" - defined as marine and industrial. The date of the Agreement was 29 June 2002. This Agreement does not have an expiration date. Honeywell, as licensor, has agreed not to use the licensed technology for the purposes of, among other things, manufacturing, selling, or repairing/overhauling the licensed products (which include the ETF40B MGT engine) in the field of use. Since the ETF40B's technical data is protected by VPS's Technology License Agreement, full and open competition using this engine is not possible.

For reasons detailed above and set forth in Paragraph 5, there are no plans at this time to compete future contracts for the types of supplies/services covered by this document. If another potential source emerges, PMS 377 will assess whether competition for future requirements is feasible.

CERTIFICATIONS AND APPROVAL

TECHNICAL/REQUIREMENTS CERTIFICATION (FAR 6.303-2(b))

I certify that the facts and representations under my cognizance, which are included in this justification and its supporting acquisition planning data, including Acquisition Plan No. 11-014 (PMS377), except as noted herein, are complete and accurate to the best of my knowledge and belief.

TECHNICAL COGNIZANCE:

[Redacted Signature]

CAPTAIN CHRISTOPHER MERCER, PROGRAM MANAGER, PMS377, 202-781-0940  
Signature Name (Print) and Title (Code) Phone No. Date

REQUIREMENTS COGNIZANCE:

[Redacted Signature]

MR. CRAIG MCKAY, EXECUTIVE DIRECTOR, PEO SHIPS, 202-781-2942 27 Oct 2011  
Signature Name (Print) and Title (Code) Phone No. Date

LEGAL SUFFICIENCY REVIEW (NMCAG 5206.303(90))

I have determined this justification is legally sufficient.

[Redacted Signature]

MS. VERONICA MURTHA, SEA 00L, 202-781-3091 6 Dec 2011  
Signature Name (Print) and Title (Code) Phone No. Date

CONTRACTING OFFICER CERTIFICATION (FAR 6.303-2(a)(12))

I certify that this justification is accurate and complete to the best of my knowledge and belief.

[Redacted Signature]

MR. THOMAS HIGGINS, CONTRACTING OFFICER, SEA 02411, 202-781-2892 6 DEC 2011  
Signature Name (Print) and Title (Code) Phone No. Date

APPROVAL BLOCK (FAR 6.304 for Approving Official)

Upon the basis of the above justification, I hereby approve, as Designee of the Head of the Contracting Activity, the solicitation of the proposed procurement(s) described herein using other than full and open competition, pursuant to the authority of 10 U.S.C. 2304(c)(1).

DIRECTOR OF CONTRACTS

[Redacted Signature]

JEROME F. PUNDERSON 12/9/11  
Signature Name (Print) Date