

Navair Sees F-35 Requiring Up to 50 Maintenance Hours per Flight Hour

Defense-Aerospace

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PARIS - Four years into their operational career, F-35 fighters are expected to require between 41.75 and 50.1 maintenance man-hours (MMH) per flight hours, or about three times as many as most fighter aircraft currently operated by Western air forces.

This extremely high MMH to flight hour ratio is extrapolated from a Dec. 01 solicitation filed by the US Naval Air Systems Command, and which states that the world-wide in-service fleet of F-35s will require 17 million man-hours of maintenance and sustainment in FY 2018 and FY 2019.

Navair's "Sources Sought" solicitation, posted on the Federal Business Opportunities (FBO) website, and whose most significant excerpts are reproduced at bottom, estimates that the F-35 fleet will include 597 aircraft at the end of FY18 and 760 aircraft at the end of FY19

The US Marine Corps declared Initial Operational Capability for its F-35B in July 2015, and the US Air Force followed for its F-35A in August 2016, so at this time the aircraft will have been in service for three to four years, depending on the version.

The table below summarizes the size of the expected F-35 in-service fleet by operator, as stated by Navair in its solicitation. These figures are obviously subject to change, but given that the F-35's production cycle is three years, most of these aircraft are already in production, and so less liable to change.

F-35 Worldwide Fleet: End FY2018 to End FY2019

Service	N° of aircraft in service end FY18	N° of aircraft in service end FY19	Change FY19/FY18
US Air Force	283 F-35A	343	60
US Navy	46 F-35C	56	10
US Marine Corps	99 F-35B	119	20
Partner countries			
UK Royal Navy	21 F-35B	24	3
Italian Air Force	16 F-35A	18	2
Italian Navy	8 F-35B	11	3
RAAF Australia	33 F-35A	48	15
Royal Danish AF	0 F-35A	6	6
Royal Netherlands AF	18 F-35A	26	8
Royal Norwegian AF	28 F-35A	34	6
Foreign Military Sales			
Turkish Air Force	14 F-35A	22	8
Republic of Korea AF	6 F-35A	16	10
Japan Air SDF	10 F-35A	16	6
Israeli Air Force	15 F-35A	21	6
TOTALS	597	760	163

(Source: Defense-Aerospace with Navair data)

Notes:

1. Delivery rates vary substantially from customer to customer.
2. Divided by the number of aircraft in service (597 in FY18 and (597 + 163 = 760) in FY19), the total requested 17 million man-hours of support equates to 12,527 per aircraft per year, or about 1,043 hours per aircraft per month.
3. Given that the average combat aircraft is expected to fly between 250 and 300 hours per year, one can conclude that Navair expects the F-35 to require, on average, between 50.1 and 41.75 maintenance man-hours per flight hour.

The number of aircraft in service -- 597 by late FY18 and (597 + 163 = 760) by late FY19) imply that the total requested 17 million man-hours of support equates to 12,527 per aircraft per year, or about 1,043 hours per aircraft per month.

Given that the average F-35 combat aircraft is expected to fly 250 hours per year, simple arithmetic shows that Navair expects the F-35 to require, on average, 50.1 maintenance man-hours per flight hour – it would have required 41.75 MMH if it flew 300 flight hours, as originally planned.

The US Air Force originally planned to fly its F-35s 300 FH per Primary Aircraft Inventory per year. Subsequently, it reduced the F-35A flying hours from 300 to 250 FH per PAI.

That is several times as many maintenance hours as current front-line fast jet fighter operated by the US services, and also well over that of the F-22 Raptor, which “is required to achieve 12.0 direct maintenance man-hours per flight hour (DMMH/FH) at system maturity, which is defined to be when the F-22 fleet has accumulated 100,000 flight hours,” according to a US Air Force Association response to a story by the Washington Post.

Facts: The F-22 is required to achieve In 2008 the F-22 achieved 18.1 DMMH/FH which then improved to 10.5 DMMH/FH in 2009. It's important to recognize this metric is to be met at system maturity, which is projected to occur in late 2010. So the F-22 is better than the requirement well before maturity.

Clearly, in FY2018 the F-35 will have only been in "operational" service for three or four years (IOC in mid-2015 and mid-2016), and so still a long way from maturity, but such a high number of maintenance hours will explode operating costs for its operators, who were long told the F-35 would be afford able to buy and to operate.

FY2018-2019 F-35 Annualized Sustainment Contract

DISCLAIMER:

This Sources Sought is for informational purposes only. This is not a Request for Proposal. It does not constitute a solicitation and shall not be construed as a commitment by the Government. Responses in any form are not offers and the Government is under no obligation to award a contract as a result of this announcement. No funds are available to pay for preparation of responses to this announcement. Any information submitted by respondents to this technical description is strictly voluntary.

INTRODUCTION:

The Joint Strike Fighter Joint Program Office (AIR-2.6) at Arlington, VA announces its intention to procure, on a Sole Source basis, the services necessary to provide Annual Sustainment support services for the Naval Air Systems Command (NAVAIR), JSF JPO (AIR-2.6).

The services are currently being performed by LM Aero of Fort Worth, TX under N00019-15-C-0114. The existing contract is a Cost Plus Incentive Fee term type. This contract is due to expire 28 February 2016. A follow-on contract for FY17 Annual Sustainment support services is currently being negotiated.

THIS SOURCES SOUGHT IS NOT A REQUEST FOR PROPOSAL.

It is a market research tool being used to determine potential and eligible small business firms capable of providing the services described herein prior to determining the method of acquisition and issuance of a Request for Proposal. The Government is not obligated to and will not pay for any information received from potential sources as a result of this synopsis.

ELIGIBILITY

The PSC for this requirement is 1510; the NAICS is 336411 with a size standard of 1,500 employees. All interested businesses are encouraged to respond. Specifically, the Government

is evaluating the possibility of establishing this requirement as a Small Business/Other Socio-economic Set-Aside. As such, all eligible SB/SDVOSBs/8(a)/etc in Zone X are encouraged to respond.

PROGRAM BACKGROUND

The Joint Strike Fighter Joint Program Office (JSF JPO) at Arlington, VA is the program and contract agent for this JPO action. In accordance with these assignments, JPO provides the following: design, development and systems upgrade; system certification; technical support; pre-positioned technical support; supply support; systems engineering; systems development support, systems test and evaluations; software support; operational software development and maintenance support; test support software development and maintenance; production engineering support; overhaul and restoration program support; program management support; and quality assurance and system safety.

ANTICIPATED PERIOD OF PERFORMANCE

The anticipated period of performance includes a base period of twelve (12) months and a single one (1) year option for a total performance period of two (2) years. The anticipated start date is 1 November 2017.

ANTICIPATED CONTRACT TYPE:

The contract type is anticipated to be a Hybrid consisting of Cost Plus Incentive Fee (CPIF), Cost Plus Fixed Fee (CPFF), Fixed Price Incentive Fee (FPIF), Firm Fixed Price (FFP), and Cost with an estimated total Level of Effort of **approximately 17-Million man-hours (based on 1,920 hours per year) over a period of two years.**

These services shall be performed off-site at Naval Air Station Patuxent River, MD, off-site at the contractor's facility at Fort Worth, TX, off-site at various United States Service Bases, and at other locations specified in the attached Draft Performance Work Statement (PWS).

REQUIREMENTS:

This is a Pre-Solicitation notification that the Joint Strike Fighter (JSF) Joint Program Office (JPO) intends to award a Sole Source contract, as defined in FAR 5.201(a). All responsible sources may submit a capability statement which shall be considered by JPO.

This Sole Source contract will be awarded to Lockheed Martin Corporation, Lockheed Martin Aeronautics Company (LM Aero), Fort Worth, TX, for **non-recurring and recurring sustainment support for all fielded F-35 aircraft for FY18-19.**

The material and non-recurring sustainment activities include: Training Material and Infrastructure, Initial Spares, Support Equipment, Autonomic Logistics Information System (ALIS) Material and Infrastructure, Site Surveys and Site Activation Activity, Depot Activation, Reliability, Maintainability and Health Maturation, and the Structural Integrity Program.

All recurring sustainment support and PBL Operations for the United States Air Force (USAF), United States Marine Corps (USMC), and United States Navy (USN), non-U.S. Department of Defense (DoD) Participants and Foreign Military Sales (FMS) customers, to include: Program Management, Sustainment Integration Activities, Systems and Sustaining Engineering, Product Support Management, ALIS Maintenance and Operations, Fleet Management, Security Management, Joint Technical Data Management, Low Observable Management, Training and Training Support, Training Systems Operations, Support Equipment Support, Supply Support and Management Services, Industrial Operations, Warfighter Support, Support of Customer Unique Requirements, Ferry of Aircraft, Engineering Change Management, Support of the United States Reprogramming Laboratory, and DMS/MS support.

Sustainment support will apply to all fielded aircraft and propulsion systems to include:

-- Sustainment for two-hundred and eighty-three (283) F-35A aircraft for the **USAF** through the end of FY18, and three-hundred and forty-three (343) F-35A aircraft for the USAF through the end of FY19, or for other such quantities as may be authorized and appropriated by Congress.

-- Sustainment for forty-six (46) F-35C aircraft for the **United States Navy** (USN) through the end of FY18, fifty-six (56) F-35C aircraft for the USN through the end of FY19, or for other such quantities as may be authorized and appropriated by Congress.

-- Sustainment for ninety-nine (99) F-35B aircraft for the **United States Marine Corps** (USMC) through the end of FY18, one-hundred and nineteen (119) F-35B aircraft for the USMC through the end of FY19, or for other such quantities as may be authorized and appropriated by Congress.

-- Sustainment for twenty-one (21) F-35B aircraft for the British **Royal Navy** (RN) through the end of FY18, twenty-four (24) F-35B aircraft for the RN through the end of FY19, or for other such quantities or variants as may be authorized by the Ministry of Defence;

-- Sustainment for sixteen (16) F-35A aircraft for the **Italian Air Force** (IAF) through the end of FY18, eighteen (18) F-35A aircraft for the IAF through the end of FY19, or for other such quantities or variants as may be authorized by the Ministry of Defence.

-- Sustainment for eight (8) F-35B aircraft for the **Italian Navy** (IN) through the end of FY18, eleven (11) F35B aircraft for the IN through the end of FY19, or for other such quantities or variants as may be authorized by the Ministry of Defence.

-- Sustainment for thirty-three (33) F35A aircraft for the **Royal Australian Air Force**(RAAF) through the end of FY18, forty-eight (48) F35A aircraft for the RAAF through the end of FY19, or for other such quantities or variants as may be authorized by the Department of Defence.

-- Sustainment for zero (0) F-35A aircraft for the **Royal Danish Air Force** (RDAF) through the end of FY18, six (6) F-35A aircraft for the RDAF through the end of FY19, or for other such quantities or variants as may be authorized by the Ministry of Defence.

-- Sustainment for eighteen (18) F-35A aircraft for the **Royal Netherlands Air Force**(RNLAf) through the end of FY18, twenty-six (26) F-35A aircraft for the RNLAf through the end of FY19, or other such quantities or variants as may be authorized by the Ministry of Defence.

-- Sustainment for twenty-eight (28) F-35A aircraft for the **Norwegian Air Force**(NAF) through the end of FY18, thirty-four (34) F-35A aircraft for the NAF through the end of FY19, or other such quantities or variants as may be authorized by the Ministry of Defence.

-- Sustainment for fourteen (14) F-35A aircraft for the **Turkish Air Force** (TAF) through the end of FY18, twenty-two (22) F-35A aircraft for TAF through the end of FY19, or other such quantities or variants as may be authorized by the Ministry of National Defense.

-- Sustainment for six (6) F-35A aircraft for the **Republic of Korea** (ROKAF) through the end of FY18, sixteen (16) F-35A aircraft for the ROKAF through the end of FY19, or other such quantities or variants as may be authorized by the Ministry of Defense.

-- Sustainment for ten (10) F-35A aircraft for **Japanese Air Self Defense Force**(JASDF) through the end of FY18, sixteen (16) F-35A aircraft for the JASDF through the end of FY19, or other such quantities or variants as may be authorized by the Ministry of Defense.

-- Sustainment for fifteen (15) F-35A aircraft for the **Israeli Air Force** (ISRAF) through the end of FY18, twenty-one (21) F-35A aircraft for the ISRAF through the end of FY19, or other such quantities or variants as may be authorized by the Ministry of Defense.

Ordering line items to allow for additional supplies and services for DMS procurements, Participant-directed procurements of country-unique F-35 requirements, and government-furnished equipment (GFE) maintenance and repair.

The responses to this Sources Sought will be utilized to determine if any Small Business Set-aside opportunities exist for planning for future procurements. All Small Business Set-aside categories will be considered. In addition, this market research tool is being used to identify potential and eligible firms, of all sizes, prior to determining the method of acquisition and issuance of a solicitation.