

**Evolved Expendable Launch Vehicle (EELV)
Phase 1A Competitive Acquisition
for GPS III Launch Services**

**Attachment 6
Evaluation Criteria**

3 August 2016

1 RESPONSIBILITY

In order to be eligible for contract award, the PCO will make a responsibility determination after the evaluation of proposals. In addition to the general responsibility matters provided under FAR 9.104-1, the PCO will also consider the SMC Commander's certification of the Offeror's proposed launch system as a certified EELV launch system to determine adequate technical skill to launch National Security Space missions.

The evaluation of the necessary organization, experience, technical skills, quality assurance, safety programs, and other elements of responsibility is necessarily more rigorous than the responsibility determination for other types of work. Within that determination, the PCO will verify an Offeror has an EELV Launch System capable of meeting the mission requirements of this solicitation. Information from the EELV certification process may be considered, which is identified in the New Entrant Certification Guide (NECG). The NECG lays out a framework providing multiple paths to achieve certification. Launch system certification is an agreed to process to review the non-recurring portions of the launch system mission assurance process. Launch system certification consists of the validation of launch vehicle and infrastructure design and qualification along with verification of the Launch Vehicle Contractor's (LVC) engineering, manufacturing, and integration processes. This framework provides a methodology for certification of launch systems based on payload risk classification. The NECG lists the standards and specifications the LVC must satisfy, data the LVC must provide to support the Government's independent verification and validation process, and the evaluation process SMC uses to determine if launch system certification requirements are satisfied. Therefore, certification informs a rigorous responsibility determination necessary to ensure the high level of experience, operational controls and technical skills necessary for National Security Space (NSS) missions.

Below are examples of critical certification assessments made to ensure Offerors can meet Government requirements.

- **Flight Margin Verification (FMV)** – Assesses mass to orbit performance margin and three-sigma margin protection of all critical flight parameters, including performance margin, battery life, controls, structures, and dynamics from liftoff through end of mission.
- **Flight Hardware and Software Qualification** – Hardware qualification is the verification that a hardware item, subsystem or system, together with its embedded software, meets all requirements and constraints of the environmental and operating conditions anticipated over its life cycle, including specified margin to the maximum predicted flight environment. Software qualification verifies that all software requirements and constraints can be satisfied using operationally representative data in an operationally representative configuration.
- **Compliance with Orbital Insertion Accuracy** – EELV-class launch systems are required to provide three-sigma orbital injection accuracy. The accuracy at the final orbit injection point for each payload mission is defined by variables such as: apogee, perigee, inclination, eccentricity, argument of perigee, longitude of ascending node, and Right Ascension of Ascending Node (RAAN), with values defined in the NECG.

- **Design and Mission Reliability** – Design reliability is the product of structure and mechanical reliability; propulsion and thrust vector control reliability; avionics and guidance reliability and electrical power subsystem reliability along with the reliability (probability of success) for each staging event. Mission reliability is composed of two components: (1) vehicle design and (2) launch processing. This takes into account the vehicle design reliabilities and the probability that ground operations (including infrastructure) and/or workmanship will induce a fault which can result in a mission failure.
- **Compliance with Standard Interface Specification (SIS)** – Defines the standard interface between the payload and the launch system. The interface includes mechanical, electrical and avionics interfaces, fluid interfaces and services, thermal environments, contamination control, acceleration load factors, dynamic environments, ground and facilities processing.

The SMC Commander is responsible for determining launch system certification. Once certification is determined, the SMC Commander issues a formal EELV Certification Letter detailing any limitations against the certification and conditions for maintaining the certification, including verification of the acceptability of any changes to the vehicle or ground systems, maintenance of the technical data underpinning the certification, and continued process discipline. Launch system certification can be withdrawn at any time by the SMC Commander if a determination is made that requirements upon which certification is based are no longer being satisfied.

Launch system certification is a key element to gaining insight into the rigorous technical capabilities and processes that demonstrate the ability to launch NSS missions and contributes to the overall NSS flight worthiness process. Flight worthiness certification for a specific NSS mission is determined prior to launch through the SMC Flight Readiness Review process by the SMC Commander.

The PCO will make a responsibility determination prior to contract award.

2 BASIS FOR CONTRACT AWARD

This is a best value source selection conducted in accordance with Federal Acquisition Regulation (FAR) 15.3, Source Selection, as supplemented by the Defense FAR Supplement (DFARS), Air Force FAR Supplement (AFFARS), and Department of Defense (DoD) Source Selection Procedures dated 31 Mar 2016. The Government intends to award a contract to the Offeror that the Government deems capable of meeting Evolved Expendable Launch Vehicle (EELV) mission requirements (to include all stated terms, conditions, representations, certifications and all other information required by the Instructions to Offerors of this solicitation) based on a best value determination. The Offeror will also need to be deemed responsible in accordance with FAR 9.1, as supplemented by DFARS and AFFARS, and their proposal must conform to the solicitation's requirements and be judged acceptable, based on the evaluation factors. While the Government will strive for maximum objectivity in its evaluations, the source selection process, by its nature, is subjective, and, therefore, professional judgment is implicit throughout the entire process.

Prior to the PCO responsibility determination, several mission unique subfactors will be evaluated.

- Orbital Accuracy
- Mass to Orbit
- Launch CONOPs
- Integrated Master Schedule
- Risk Mitigation Plans

Additionally, past performance is embedded within the Orbital Accuracy and Mass to Orbit subfactors by assessing performance from historical missions. The Integrated Master Schedule subfactor also requires task durations to be supported by historical timelines or other supporting rationale.

There are two schedule subfactors to provide confidence in the Offeror's ability to meet the initial launch capability (ILC) date. The Integrated Master Schedule subfactor evaluates the Offeror's ability to meet the mission specific ILC date by demonstrating schedule confidence of 80% or greater to include completion of open non-recurring engineering tasks. The Risk Mitigation Plans subfactor evaluates the Offeror's schedule to complete open non-recurring engineering by the ILC date minus 12 months to provide further schedule confidence. The Risk Mitigation Plans subfactor also evaluates an Offeror's ability to address "Low-Medium" or higher risks in accordance with the Government's TIRP process to support the ILC date.

The Government reserves the right to award without discussions if it is in the best interest of the Government. However, the Government may conduct discussions with Offerors after establishing a competitive range based on the ratings of each proposal against all evaluation criteria.

The Government intends to award one contract to the Offeror that meets all performance and schedule subfactors with the lowest Total Evaluated Price (TEP).

3 GENERAL INSTRUCTIONS

The Government will evaluate against all information the Offeror provides in accordance with Attachment 5 Instructions to Offerors with the exception of the executive summary. Any proposal updates from directly relevant ongoing early integration studies shall be evaluated according to the evaluation criteria specified below. Any proposal updates from anomaly resolution findings shall be evaluated according to the evaluation criteria specified herein. Submission of insufficient information may result in the Offeror being unresponsive and may be ineligible for award. If during the evaluation period, it is determined to be in the best interest of the Government to hold discussions, Offeror responses to Evaluation Notices (ENs) and the Final Proposal Revision (FPR) will be considered in making the source selection decision. If the Offeror's proposal has been evaluated as acceptable at the time discussions are closed, any changes or exceptions in the FPR are subject to evaluation and may introduce risk that the Offeror's proposal may be determined unacceptable and ineligible for award.

4 NUMBER OF AWARDEES

The Government intends to award to one Offeror all requirements of this contract. However, the Government reserves the right to make no award at all.

5 CORRECTION POTENTIAL OF PROPOSALS

The Government will consider, throughout the evaluation, the "correction potential" of proposals. The judgment of such "correction potential" is within the sole discretion of the Government. If an aspect of an Offeror's proposal does not meet the Government's requirements and is not considered correctable, the Offeror may be eliminated from the competitive range.

6 EVALUATION OF PERFORMANCE AND SCHEDULE FACTORS

The Offeror's proposal will be evaluated utilizing the ratings defined in Table 6-1.

The Government will evaluate the Offeror's proposal for compliance with the Performance and Schedule subfactors as set forth in paragraphs 6.1 and 6.2 below. An Unacceptable rating in any subfactor will result in an unawardable proposal. Any criteria evaluated as unacceptable will render the subfactor unacceptable and therefore, the proposal will be unawardable. For a subfactor to be rated as acceptable, all aspects for that subfactor must be evaluated as acceptable. If any aspect is evaluated as unacceptable, then the entire subfactor will be evaluated as unacceptable. Only those proposals determined to be technically acceptable, either initially or as a result of discussions, will be considered for award.

TECHNICAL RATING

The technical rating provides an assessment of the acceptability of the Offeror's solution for meeting the Government's threshold requirements. The **Performance** and **Schedule** Factors will not receive a technical rating, but all **Performance** and **Schedule** subfactors will receive one of the ratings described in Table 6-1 – Technical Acceptable / Unacceptable Ratings per DFARS 215.300. All subfactors are of equal importance.

Table 6-1 – Technical Acceptable/Unacceptable Ratings

Rating	Description
Acceptable	Proposal meets the minimum requirements of the solicitation.
Unacceptable	Proposal does not meet the minimum requirements of the solicitation.

6.1 FACTOR 1: PERFORMANCE

6.1.1 SUBFACTOR 1: ORBITAL ACCURACY

6.1.1.1 Orbital Injection Accuracy: The 5 Injection Accuracy requirements (apogee altitude, perigee altitude, inclination, right ascension of ascending node, and argument of perigee) are met when the

Offeror's approach to meeting the GPS III 3-sigma injection accuracy (defined as 99.73% probability at 50% confidence) utilizing data from Table 6-1 and Table 6-2 of Attachment 5 paragraph 6.1.1 satisfies the requirements from Attachment 5, paragraph 6.1.1, Table 6-1: GPS III Space Vehicle (SV) Osculating Orbital Target and Accuracy Requirements.

6.1.1.2 Spin Rate: The requirement is met when the Offeror's approach to meeting the GPS III Separation Parameter accuracy utilizing data from Table 6-3 of Attachment 5 paragraph 6.1.1.2 satisfies a Spin Rate requirement of +0.6 deg/sec and an accuracy of ± 0.3 deg/sec.

6.1.1.3 Pointing Accuracy of $+Z_{sv}$ axis: The requirement is met when the Offeror's approach to meeting the GPS III Separation Parameter accuracy utilizing data from Table 6-3 of Attachment 5 paragraph 6.1.1.2 satisfies a Pointing Accuracy of $+Z_{sv}$ axis requirement of Negative Ecliptic Normal (NEN) and an accuracy of ≤ 5 deg.

6.1.1.4 Transverse Angular Rate (Root Sum Square [RSS]) of the rates about the X_{sv} and Y_{sv} axes (deg/sec): The requirement is met when the Offeror's approach to meeting the GPS III Separation Parameter accuracy utilizing data from Table 6-3 of Attachment 5 paragraph 6.1.1.2 satisfies the Transverse Angular Rate requirement of 0 deg/sec and an accuracy of ≤ 1.8 deg/sec.

6.1.1.5 The requirement is met for each historical mission when orbital injection accuracy actual flight data falls within the required 3-Sigma orbit injection dispersions utilizing data from Table 6-4 of Attachment 5 paragraph 6.1.1.3.

6.1.1.6 The requirement is met for each historical mission when orbital injection accuracy actual flight data falls within the 3-Sigma predictions utilizing data from Table 6-4 of Attachment 5 paragraph 6.1.1.3.

6.1.2 SUBFACTOR 2: MASS-TO-ORBIT

6.1.2.1 Mass-to Orbit: The requirement is met when the results of the Offeror's analysis, described in Attachment 5 paragraph 6.1.2 demonstrates the capability to lift the total mass provided in Attachment 5 Table 6-5 to the orbit target requirements in Attachment 5 Table 6-1 with a performance margin greater than or equal to zero. The Offeror's selected "Max SV Mass Used" shall be greater than or equal to the maximum SV mass indicated in MRA section III.K (Mass Properties [separated SV]) for the Offeror's selected integration type (vertical or horizontal) with the appropriate adjustment to the SV mass for the Offeror's selected perigee value.

6.1.2.2 Flight Performance Reserve: The requirement is met when the mass-to-orbit analysis includes an upper stage flight performance reserve value calculated using the methodology described in Attachment 5 paragraph 6.1.2.1.

6.1.2.3 Upper Stage Disposal: The requirement is met when the mass-to-orbit analysis includes compliance with Orbital Debris Mitigation Standard Practices (ODMSP) and a $\geq 90\%$ probability of success for completing the planned upper stage disposal, as described in Attachment 5 paragraph 6.1.2.2.

6.1.2.4 Flight Mission Profile: The requirement is met when the GPS III mission profile, as specified in Attachment 5 paragraph 6.1.2.2, is supported by evidence provided for flight demonstrated mission profile portions as well as engineering and risk analyses provided for undemonstrated mission profile portions identifying unproven capabilities, risk analyses, and

mitigations as identified in Attachment 5 paragraph 6.1.2.3.

6.1.2.5 Ground Trace and Impact: The requirement is met when the ODMSP expected casualty requirement of less than one in 10,000 is satisfied and substantiated by the Offeror's provided analysis description and plots as described in Attachment 5 paragraph 6.1.2.4. Nominal jettisoned body impacts must occur over water and, as applicable, the upper stage reentry location shall be in a broad ocean area.

6.1.2.6 Historical Data: The requirement is met when the historical flight data supports the trajectory predictions or acceptable supporting rationale to explain differences between flight results and predictions as described in Attachment 5 paragraph 6.1.2.5.

6.1.3 SUBFACTOR 3: LAUNCH OPERATIONS CONCEPT OF OPERATIONS (CONOPS)

6.1.1.1 The requirement is met when the Offeror's approach to launch operations flow from the time the Government provides the SV to the Offeror as government property for encapsulation through liftoff, to include any contingency procedures or detailed plans proposed under Attachment 5 paragraph 6.1.3.1 demonstrates compliance with the requirements of the GPS III MRA, paragraph XIV.

6.1.1.2 The requirement is met when the Offeror's approach to SV processing and encapsulation procedures proposed under Attachment 5 paragraph 6.1.3.2 demonstrates compliance with the GPS III MRA, paragraph XIV for the processing facility the Government has required the Offeror to use for an East coast launch.

6.1.1.3 The requirement is met when the Offeror's approach to access the payload via the payload fairing access doors on the integrated LV/SV stack proposed under Attachment 5 paragraph 6.1.3.3 demonstrates compliance with the requirements of the GPS III Mission Requirements Annex (MRA), paragraph XIV section E, G, and H.

6.1.1.4 The requirement is met when the Offeror's approach for contingency offload proposed under Attachment 5 paragraph 6.1.3.4, demonstrates compliance with the requirements of the GPS III MRA, paragraph XIV section G, and H.

6.2 FACTOR 2: SCHEDULE

The Government considers a high risk schedule to be unacceptable. An Offeror's schedule will be determined high risk if it is unable to meet the requirement specified in Subfactor 1, paragraphs 6.2.1.1. Additionally, an Unacceptable rating in any of the following schedule criteria constitutes a high risk IMS and the Offeror's proposal will be considered unawardable.

6.2.1 SUBFACTOR 1: INTEGRATED MASTER SCHEDULE (IMS)

6.2.1.1 The requirement is met when the results of the Offeror's SRA demonstrate at least an 80% probability of meeting the ILC +30 days or earlier; and, Offeror's IMS meets all four (4) of the criteria below:

- 6.2.1.1.1 The requirement is met when the Offeror's IMS is constructed IAW paragraph 6.2.1.1, Attachment 5, Instructions to Offerors.
- 6.2.1.1.2 The requirement is met when the Offeror's IMS reflects activities sufficient to support the ILC IAW paragraph 6.2.1.2, Attachment 5, Instructions to Offerors. The ILC date for purposes of evaluation is 15 February 2019.
- 6.2.1.1.3 The requirement is met when the Offeror's IMS task durations are IAW paragraph 6.2.1.1, Attachment 5, Instructions to Offerors, and deemed credible based on the Offeror's historical performance data, rationale/lessons learned, and statements of assumptions.
- 6.2.1.1.4 The requirement is met when the Offeror's schedule risk assessment (SRA) is performed IAW paragraph 6.2.1.3 Attachment 5, Instructions to Offerors, and the three-point estimates are deemed credible and reasonable based on the Offeror's historical performance data, rationale/lessons learned, and statements of assumptions.

6.2.2 SUBFACTOR 2: RISK MITIGATION PLANS

- 6.2.2.1 The requirement is met when the Offeror's proposed schedule to complete all open non-recurring engineering work demonstrates the ability to close by L-12 months.
- 6.2.2.2 The requirement is met when the Offeror's proposed risk mitigation plan(s) Government Identified "Low-Medium" or higher risks IAW with the TIRP demonstrates the ability to support ILC or Offeror provides written documentation on Government risk acceptance. Any proposal updates from anomaly resolution findings shall be evaluated according to the evaluation criteria specified herein.

7 EVALUATION OF PRICE FACTOR

7.1 FACTOR 3: PRICE

The Offeror's price will be evaluated for Reasonableness and Unbalanced pricing, as defined below. The Government will use analysis technique(s) identified in FAR 15.404-1 to evaluate the Offeror's proposed price. The accuracy of the Offeror's computations of its TEP will be evaluated as well.

7.1.1 REASONABLENESS

Reasonableness of an Offeror's proposed price will be evaluated using one or more price analysis techniques, as identified in FAR 15.404-1. In accordance with FAR 15.403-1(b) and 15.403-3(a), data other than certified cost or pricing data may be required to support a determination of price reasonableness. If, after receipt of proposals, the Procuring Contracting Officer (PCO) determines that there is insufficient data available to determine price reasonableness, the Offeror shall be required to submit additional cost or pricing data.

7.1.2 UNBALANCED PRICING

The Government will evaluate the Offeror's proposed prices for unbalanced pricing in accordance with FAR 15.404-1(g).

7.1.3 TOTAL EVALUATED PRICE

For source selection evaluation purposes only, total evaluated price will be determined by adding together the following from Table 7-1 in Attachment 5:

1. The sum of the firm-fixed prices of CLINs 0001, 0002, and 0003 in the model contract;
2. The calculated value of SMC/LR--H005 QUICK REACTION AND ANOMALY RESOLUTION;
3. The total rental equivalency cost of GP proposed in Table 7-2 of Volume III. The source selection team will verify the accuracy of the calculations of the proposed rental equivalency price, and verify that the GP corresponds to the respective data provided in Attachment 8: Government Property of the Model Contract.

The table below is provided for illustrative purposes only.

CLIN	DESCRIPTION	PRICE
0001	LAUNCH VEHICLE PRODUCTION	
0002	MISSION INTEGRATION/LAUNCH OPS/ SPACEFLIGHT WORTHINESS CERTIFICATION	
0003	MISSION UNIQUE	
	QUICK REACTION/ANOMALY RESOLUTION (SMC/LR--H005) _____ (FIXED PRICE RATE) * 10,000 HOURS	
	RENTAL EQUIVALENCY OF GOVERNMENT PROPERTY	
TOTAL EVALUATED PRICE		

8 COMPETITIVE ADVANTAGE FROM USE OF GOVERNMENT PROPERTY

If the Offeror proposes the use of Government Property (GP), the rental equivalency cost of the GP will be incorporated into the TEP based on the unit acquisition cost of each item requested. As defined by FAR 45.1, the Government may assess a different unit acquisition cost of any GP stated by the Contractor if the Government's evaluation supports another value. See section 7 of this document.