Evolved Expendable Launch Vehicle (EELV) Phase 1A Competitive Acquisition for STP-3 Launch Services

Attachment 5

Instructions to Offerors

29 September 2016

1 PROGRAM STRUCTURE AND OBJECTIVES

The Air Force Space and Missile Systems Center (SMC) anticipates the award of a launch services contract for delivering a Space Test Program-3 (STP-3), satellite to orbit. The general requirements for the launch services are defined in the Performance Work Statement (PWS) and Contract Data Requirements List (CDRL), while mission-specific requirements are defined in the Mission Requirements Annex (MRA). This contract is for the procurement of the STP-3 mission only; therefore, requirements in the PWS and CDRL with specific National Reconnaissance Office-only references are not applicable and appear in grey text.

2 GENERAL INSTRUCTIONS

The Offeror's proposal must include all data and information requested by this Request for Proposal (RFP) and must be submitted in accordance with (IAW) these instructions. In developing the proposal, the Offeror shall ensure that their proposed offer complies with all the requirements contained in the RFP, to include the PWS, MRA, and CDRLs. Noncompliance with the instructions provided in this RFP may result in an unfavorable proposal evaluation**.**

The Offeror's proposal shall be clear and concise and shall include sufficient detail for effective evaluation and for substantiating the validity of stated claims. The proposal should not simply rephrase or restate the Government's requirements, but shall provide convincing rationale to address how the Offeror intends to meet these requirements. Offerors shall assume that the Government has no prior knowledge of their capabilities and experience and will base its evaluation on the information presented in the Offeror's proposal. If the Government enters into discussions, it reserves the right to make a written request for proposal updates to incorporate any directly relevant information from ongoing early integration studies. Elaborate brochures or documentation, binding, detailed art work, or other embellishments are unnecessary and are not desired. The proposal validity date must be specified and the proposal must be valid for at least 180 days after date of submission. IAW Federal Acquisition Regulation (FAR) Subpart 4.8 (Government Contract Files), the Government will retain one copy of all unsuccessful proposals. Unless the Offeror requests otherwise, the Government will destroy extra copies of such unsuccessful proposals.

3 GENERAL INFORMATION

3.1 POINT OF CONTACT

The Procuring Contracting Officer (PCO), Ms. Dzung Dom, is the sole point of contact for this acquisition. Address any questions or concerns you may have to the PCO at dzung.dom@us.af.mil or 310-653-3696. Written requests for clarification may be sent to the PCO at the address for Launch Enterprise contracting office (SMC/LEK) located on the front page of the model contract/solicitation.

3.2 DEBRIEFINGS

The PCO will promptly notify Offerors of any decision to exclude them from the competitive range, whereupon they may request and receive a debriefing IAW FAR 15.505. In addition, the PCO will notify unsuccessful Offerors in the competitive range of the source selection decision IAW FAR 15.506. Upon such notification, unsuccessful Offerors may request and receive a

debriefing. Offerors desiring a debriefing must make their request IAW the requirements of FAR 15.505 or 15.506, as applicable.

3.3 DISCREPANCIES

If an Offeror believes that the requirements in this RFP contain an error or omission, or are otherwise unsound, the Offeror shall immediately notify the PCO in writing with supporting rationale as well as the remedies the Offeror is asking the PCO to consider as related to the omission or error.

3.4 ELECTRONIC REFERENCE DOCUMENTS

Referenced documents for this solicitation are available at http://www.fedbizopps.gov. Potential Offerors are encouraged to subscribe for real-time e-mail notifications when information has been posted to the website for this solicitation.

3.5 EXCHANGES

Exchanges of source selection information between the Government and Offerors will be controlled by the PCO. Source selection information will be transmitted in person or via certified mail, delivery service, or facsimile.

3.6 DISCUSSIONS

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

3.7 USE OF NON-GOVERNMENT ADVISORS

Offerors are advised that data submitted to the Government in response to this solicitation will be released to individuals who work for the following companies as non-Government advisors for review and analysis:

Company Name	Address
The Aerospace Corporation	PO BOX 92957, Los Angeles, CA 90009-2957
Tecolote Research, Inc	2120 E. Grand Avenue, Suite 200, El Segundo, CA 90245

Offerors are advised that data submitted to the Government in response to this solicitation may be released to individuals who work for the following companies as non-Government advisors for administrative support.

Company Name	Address
Business and Technology Solutions	3572 Dayton-Xenia Rd, Suite 210, Beavercreek, OH 45432
ARRAY Information Technology	7474 Greenway Center Dr, Suite 600, Greenbelt, MD 20770

Individuals from the above support contractors have signed individual non-disclosure agreements with the Government, which strictly prohibits any release or disclosure of information outside of the source selection team.

3.8 ALTERNATIVE PROPOSALS

Alternative proposals will not be considered. Alternative proposals are those that do not meet the terms and conditions of the RFP, including attachments.

4 PROPOSAL FORMAT/LIMITS

4.1 ORGANIZATION/NUMBER OF COPIES/PAGE LIMITS

The Offeror shall prepare the proposal as set forth in Table 4-1: Proposal Organization. The titles and contents of the volumes shall be as defined in this table, all of which shall be within the required page limits. The Volumes identified in the table shall be separately bound in three-ring, loose-leaf binders, plus each Volume's electronic copy shall be saved on a separate compact disc (CD) or digital video disc (DVD). For Volume II, provide page separation tabs for each Performance sub-factor. The Offeror shall provide two hard copies of the proposal and two electronic copies of the proposal on CDs or DVDs. The contents of each proposal volume are described in the paragraph as noted in the table below:

Table 4-1: Proposal Organization

Volume	Title	Hard Copies	Electronic Copies	Page Limit
I	Executive Summary	2	2	10
II	Factor 1: Performance	2	2	175
	Factor 2: Schedule	2	2	Unlimited
	Factor 3: Small Business Participation	2	2	Unlimited
III	Past Performance Volume	2	2	5 pages per contract
IV	Price Volume	2	2	Unlimited
V	Model Contract Volume	2	2	Unlimited

4.2 PAGE LIMITATIONS

Page limitations shall be treated as maximums. If exceeded, the excess pages will not be read or considered in the evaluation of the proposal, and excess paper copies will be shredded. If the Government issues Evaluation Notices (EN) for discussions, page limitations may be placed on responses to EN. The specified page limits for EN responses will be identified in the letters sent along with the EN to the Offerors. Unless otherwise specified, each page shall be counted except

the following: cover pages, table of contents, tabs, and glossaries. Additionally, for Factor 2 the Offeror may include a narrative to articulate the proposed schedule.

4.3 PAGE SIZE AND FORMAT

A page is defined as each face of a sheet of paper containing information. When both sides of a sheet display printed material, it shall be counted as two pages. Page size shall be 8.5 by 11 inches (in.), not including foldouts. Except for the reproduced sections of the solicitation document, the text size shall be no less than 12 point using Times New Roman font type. Tracking, kerning, and leading values shall not be changed from the default values of the word processing or page layout software. Use at least 1 in. margins on the top and bottom and ¾ in. inch side margins. Pages shall be numbered sequentially by volume. These page size and format restrictions shall also apply to responses to EN.

Legible tables, charts, graphs, and figures shall be used wherever practical to depict organizations, systems and layout, implementation schedules, plans, etc. These displays shall be uncomplicated and legible, and shall not exceed 11 by 17 in. in size. Foldout pages shall fold entirely within the volume, and each face of the foldout containing information will be counted as a single page. Foldout pages may only be used for large tables, charts, graphs, diagrams, and schematics, not for pages of text. For tables, charts, graphs, and figures, the text may be in the Offeror's preferred format.

4.4 CLASSIFIED INFORMATION

The Government does not expect that classified information will be required. If you require classified information in your proposal, please contact the PCO as soon as possible but no later than 14 calendar days prior to the deadline for proposal receipt.

4.5 CROSS-REFERENCING

To the greatest extent possible each volume shall be written on a stand-alone basis so that its contents may be evaluated with a minimum of cross-referencing to other volumes of the proposal. Information required for proposal evaluation that is not found in its designated volume will be assumed to have been omitted from the proposal. Cross-referencing within a proposal volume is permitted where its use would conserve space without impairing clarity.

4.6 INDEXING

Each volume shall contain a table of contents with more detail than the master table of contents included in the Executive Summary Volume, to delineate the subparagraphs within that volume. Tab indexing shall be used to identify sections.

4.7 GLOSSARY OF ABBREVIATIONS AND ACRONYMS

Each volume shall contain a glossary of all abbreviations and acronyms used with a definition for each.

4.8 BINDING AND LABELING

Each volume of the proposal shall be separately bound in a three-ring, loose-leaf binder, permitting the volume to lie flat when open. Staples shall not be used. A cover sheet shall be bound in each volume, clearly marked as to volume number, title, copy number, solicitation identification, and the Offeror's name. The same identifying data shall be placed on the spine of each binder. All unclassified document binders shall have a color other than red or other applicable security designation colors. Be sure to apply all appropriate markings including those prescribed IAW FAR 52.215-1(e) (Restriction on disclosure and use of data) and FAR 3.104-4 (Disclosure, Protection, and Marking of Contractor Bid or Proposal Information and Source Selection Information).

4.9 ELECTRONIC OFFERS

The content and page size of electronic copies must be identical to the hard copies. All CDs shall be placed in plastic sleeves that open on the top in one separate binder, with the volume number and title indicated on each disc. Hypertext links shall be used to facilitate navigation within the document. Use separate files to permit rapid location of all portions, including factors, exhibits, annexes, and attachments, if any. If files are compressed, the necessary decompression program must be included. The electronic copies of the proposal shall be submitted in a format readable by Microsoft (MS) Office Word 2007/2010, MS Office Excel 2007/2010, MS Office Project 2007/2010, and MS Office Power Point 2007/2010, as applicable; exception applies to the Executive Summary and the Model Contract. In the event that hard copies and electronic copies of a proposal are submitted and there are discrepancies between the hard copies and the electronic copies of the proposal, the electronic copies will be used for evaluation. The "original" proposal shall be identified.

4.10 DISTRIBUTION

Delivery of proposals shall be coordinated with the PCO at least 24 hours in advance of the due date and time. Early deliveries of proposals shall also be coordinated with the PCO. Electronic and hard copies of proposals are due 2 December 2016 by 4:00 pm Pacific Daylight Time. Proposals shall be addressed to the PCO and mailed or hand carried to:

SMC/LEK
Attn: Ms. Dzung Dom
483 N. Aviation Blvd.
El Segundo, CA 90245

Proposals received after the date and time specified will be treated IAW FAR 52.212-1(f).

5 VOLUME I – EXECUTIVE SUMMARY

The purpose of the Executive Summary Volume is to provide a complete overview of the Offeror's proposal. The Executive Summary Volume will not be evaluated, scored, or used to clarify other discrepant information in other volumes. Any summary material presented in the Executive Summary Volume will not be considered as meeting the requirements for any portions

of other volumes of the proposal. Do not include cost information. The Offeror shall provide the following information in the Executive Summary:

5.1 NARRATIVE SUMMARY

The narrative summary of the entire proposal shall be concise, to include addressing any risk areas and mitigations, and highlighting any key or unique features. The salient features shall tie in with the evaluation factors in Attachment 6, Evaluation Criteria.

5.2 OFFEROR'S PROPOSED TEAM

The Offeror shall briefly identify the Offeror's team to include major subcontractors.

5.3 MASTER TABLE OF CONTENTS

The Offeror shall include a master table of contents of the entire proposal.

5.4 CROSS REFERENCE MATRIX

The Offeror shall fill in the proposal column of the cross reference matrix below with the volume, sections, and paragraph numbers from their proposal that correspond with the paragraph numbers from Attachment 5 and Attachment 6 listed below.

Cross Reference Matrix			
Attachment 5: Instructions to Offerors	**Attachment 6: Evaluation Criteria**	**Counted Towards Maximum Page Limitation (Y/N)**	**Proposal Volume, Section, Paragraphs**
5.1	N/A	Y	*
5.2	N/A	Y	*
5.3	N/A	N	*
5.4	N/A	N	*
6.1.1	6.1.1.1	Y	*
6.1.1.1	6.1.1.1	Y	*
6.1.1.2	6.1.1.2	Y	*
6.1.1.2	6.1.1.3	Y	*
6.1.1.2	6.1.1.4	Y	*
6.1.1.3	6.1.1.5	Y	*
6.1.1.3	6.1.1.6	Y	*
6.1.2	6.1.2.1	Y	*
6.1.2.1	6.1.2.2	Y	*
6.1.2.2	6.1.2.3	Y	*
6.1.2.3	6.1.2.4	Y	*
6.1.2.4	6.1.2.5	Y	*
6.1.2.5	6.1.2.6	Y	*
6.1.3.1	6.1.3.1	Y	*
6.1.3.2	6.1.3.2	Y	*
6.1.3.3	6.1.3.3	Y	*
6.1.3.4	6.1.3.4	Y	*
6.1.4.1	6.1.4.1	Y	*

6.1.4.2	6.1.4.2	Y	*
6.1.4.3	6.1.4.3	Y	*
6.1.4.4	6.1.4.4	Y	*
6.1.4.5	6.1.4.5	Y	*
6.2.1.1	6.2.1.1.1	N	*
6.2.1.2	6.2.1.1.2	N	*
6.2.1.1	6.2.1.1.3	N	*
6.2.1.3	6.2.1.1.4	N	*
6.2.1.4	6.2.1.1.1	N	*
6.2.2.1	6.2.2.1	N	*
6.2.2.2	6.2.2.2	N	*
6.3	6.3	Y	*
7.1.3	7.4	Y	*
7.1.3	7.5	Y	*
7.1.4	7.6	Y	*
8.1	8.1	N	*

* To be filled in by Offeror

6 VOLUME II – PERFORMANCE AND SCHEDULE

Volume II addresses the Offeror's technical approach and solution for meeting the Government's threshold requirements for each Performance and Schedule sub-factor. The Offeror shall describe their proposed approach to meeting the requirements of each sub-factor. Offeror responses will be evaluated against the Performance and Schedule criteria defined in Attachment 6, Evaluation Criteria, Section 6.

For purposes of this STP-3 mission, the following terminology shall apply.

Primary Space Vehicle (SV) = STPSat-6
Secondary SV = Integrated Propulsive Evolved Expendable Launch Vehicle (EELV) Secondary Payload Adapter (ESPA) (IP-ESPA) = Propulsive ESPA + Auxiliary Payloads (APL)
Payload (PL) = Integrated Payload Stack (IPS)

PROPULSIVE ESPA: Spacecraft bus built upon an ESPA ring that accommodates a suite of APL.

APL: A payload or space vehicle that typically utilizes excess launch performance capability not used by the primary mission.

IP-ESPA: An ESPA-based space vehicle that transports APLs to a desired orbit(s).

IPS: The IPS consists of all SV and associated interface hardware (e.g., dispenser(s), adapter(s), separation system(s) airborne support equipment, etc.) that are above the Standard Interface Plan. Note: For rideshare missions, this term is synonymous with "Payload (PL)."

RIDESHARE MISSION: A mission that is comprised of a Primary SV and at least one Secondary SV.

6.1 FACTOR 1: PERFORMANCE

6.1.1 SUB-FACTOR 1: ORBITAL INSERTION ACCURACY

The Offeror shall complete the Proposed STP-3 3-Sigma Injection Accuracy column in Table 6-1 for the proposed launch vehicle system of the STP-3 mission. 3-sigma for Injection Accuracy is defined as 99.73% probability at 50% confidence. Capability proposed to provide improved accuracy relative to the threshold values is eligible for value adjustment as described in Attachment 6, section 8.1.4.2.

Table 6-1: STP-3 Orbit Injection Target and Accuracy Requirements (see note 1)

Parameter	Orbit Injection Target Requirement	Threshold (Minimum) Accuracy Requirement	Objective (Maximum) Accuracy Requirement	Proposed STP-3 3-sigma Injection Accuracy
Apogee Altitude	19,546 nautical miles (nmi)	± 162 nmi	± 0 nmi	
Perigee Altitude	19,546 nmi	± 162 nmi	± 0 nmi	
Inclination	0 degrees (deg)	± 0.15 deg	± 0 deg	
Deployment Longitude	65 deg West	± 10 deg	N/A	
Delta V (see note 2, 3, 4)	N/A	49.5 ft/s	0 ft/s	

(1) Orbital parameters correspond to SV following separation including the effects of separation delta-V, and apply to both Primary and Secondary SVs

(2) Delta V will be used for Value Adjusted Total Evaluated Price (VATEP) evaluation purposes. See Attachment 6, section 8.1.4.2

(3) Delta V is computed from the orbital elements and USG will verify proposed Delta-V by using the Hohman Transfer method

(4) For proposal purposes, the nominal orbit will be evaluated as compliant with ODMSP without the need for additional maneuvers by the launch vehicle's upper stage

6.1.1.1 The Offeror shall provide a detailed description of their approach to meet all orbital injection targets and threshold accuracy requirements described in Table 6-1 while complying with all separation parameters detailed in Table 6-3. The description shall provide clear linkages between the approach to meet requirements and the demonstrated performance of the proposed or relevant current family of launch vehicle system. The description shall also include the following:

a. Identification of the launch vehicle system and configuration proposed.
b. A detailed description of the methodology(ies) (Monte Carlo or Covariance) used to establish the injection accuracies from Table 6-1. If Monte Carlo methodology is chosen, a minimum of 10,125 runs must be performed. If the Covariance methodology is chosen, the offeror shall provide four historical missions in which the covariance methodology analytical predictions are compared to flight orbital insertion.
c. Complete Table 6-2 with a list of all significant dispersions (e.g., engine

shutdown impulse) used in the methodology for establishing the injection accuracies and separation parameters from Table 6-1 and 6-3 respectively, including justifications in a separate narrative paragraph.

Dispersions are defined as variations on performance and navigation input parameters (e.g., thrust, Isp, sensor bias/scale factors, etc.) used to generate injection accuracy and separation parameter results. Dispersions shall be listed in Table 6-2 with required data to describe the dispersions used, including statistical distribution type (e.g., Gaussian, uniform).

The Offeror shall identify if a GEO direct injection mission profile has not yet been flight demonstrated by proposed or relevant launch vehicle system.

If any of the Offeror's previous flights have not demonstrated a mission profile similar to STP-3, then the Offeror shall provide a detailed engineering and risk analysis of the launch vehicle subsystems and components that would impact orbital insertion accuracy, and any risks or limiting factors associated with the design or configuration of the affected subsystems. The Offeror shall provide a mitigation approach that addresses the identified risks associated with the undemonstrated guidance, navigation, and injection to GEO direct.

Table 6-2: Dispersions List

Dispersion	-3 sigma value	Nominal	+3 sigma value	Statistical Distribution Type
Parameter (subscript i)				
Parameter 2 (subscript i=n)				

6.1.1.2 The Offeror shall complete the Proposed STP-3 Separation Parameter Accuracy column in Table 6-3 for the STP-3 mission.

Table 6-3: STP-3 Separation Parameters

Primary Space Vehicle (SV)			
Parameter	**Requirement**	**Accuracy**	**Proposed STP-3 Separation Parameter Accuracy**
SV Rotational Rate in all axes (X-axis, Y-axis, Z-axis) at Separation	< 0.5 deg/sec	3-sigma	
SV Pointing Attitude at Separation	–Xsv pointed to the sun*	<= 5 deg half cone angle (3-sigma)	
SV Pointing Attitude Error (all axes)	<= 5 deg half cone angle	3-sigma	
Primary SV-LV Relative Separation Velocity (meters per second [m/sec])	Non-zero value that is sufficient to prevent re-contact under all anticipated nominal and off-nominal conditions	3-sigma	
Secondary SV			
Parameter	**Requirement**	**Accuracy**	**Proposed STP-3 Separation Parameter Accuracy**
SV Rotational Rate in all axes (X-axis, Y-axis, Z-axis) at Separation	< 0.5 deg/sec	3-sigma	
Secondary SV-LV Relative Separation Velocity (m/sec)	Non-zero value that is sufficient to prevent re-contact under all anticipated nominal and off-nominal conditions	3-sigma	

*Note: For evaluation purposes only, assume T-0 (launch) is on 15 June 2019 at 00:00 hours (GMT).

6.1.1.3 The Offeror shall provide a completed Table 6-4, Historical Orbital Injection Accuracy, for each of the four most recent Geostationary Orbit (GEO) direct inject [or GEO transfer orbit (GTO)] launches of a launch vehicle system similar to the proposed launch vehicle system. If the launch history does not include four GEO direct inject (or GTO) launches, then the Offeror shall complete Table 6-4 with data from as many GEO direct inject (or GTO) launches as flown and supplement with data for the most recent launches. Historical launches should not include those that had a burn-to-depletion mission design for spacecraft injection. The Offeror shall provide detailed supporting rationale behind any changes to the dispersions or methodology used in

generating the predicted accuracies for either the historical GEO direct inject (or GTO) launches or the most recent launches.

Table 6-4: Historical Orbital Injection Accuracy

Reference Missions	Apogee Altitude (km)	Perigee Altitude (km)	Inclination (deg)	Deployment Longitude
3-Sigma Requirement (Min, Target, Max)				
3-Sigma Prediction (Min, Mean, Max)				
Actual				

Notes: deg = degrees, km = kilometers

6.1.2 SUB-FACTOR 2: MASS-TO-ORBIT

The Offeror shall provide a detailed description of the mass-to-orbit capability associated with the proposed launch vehicle system for the STP-3 mission based on launching from the Eastern Range for the Target and Accuracy Requirements in Table 6-1. The Offeror shall provide an analysis and a description of the methodology used to generate the final mass-to-orbit for the STP-3 mission. At a minimum, the launch vehicle shall have the capability of injecting the Total Mass, described on Table 6-5, to the Target Requirements defined on Table 6-1. The Offeror's proposed launch vehicle must lift the threshold mass (7,202 pounds [lb]) and may lift up to the objective mass (10,024 lb) (reference the attached MRD to the MRA, paragraphs 1.3, 3.1.2 and 3.2.2 for a more detailed description of the mass requirement). The Offeror shall account for mission unique requirements (excluding options) which reduce mass to orbit capability. Capability proposed above the threshold mass is eligible for value adjustment as described in Attachment 6, section 8.1.4.3. This analysis and methodology shall be based on demonstrated flight performance. If demonstrated flight performance is not available, then analysis shall be provided.

6.1.2.1 The Offeror shall fill in the applicable mass values in Table 6-5. The "Max Primary and Secondary SV Mass Used" in Table 6-5 shall be greater than or equal to the minimum Primary and Secondary SV total mass indicated in MRA (ref sections 1.3, 3.1.2 and 3.2.2 of MRD) for mass properties of the space vehicle and integrated propulsive ESPA (IP-ESPA). The Offeror shall also provide the performance reserves as specified below.

a) 3-sigma Flight Performance Reserve value (defined as 99.865% probability at 50% confidence) calculated by Monte Carlo methodology with a minimum of 10,125 runs performed to the STP-3 Target Requirements detailed in Table 6-1 with the Total Mass as defined in Table 6-5

b) Description and quantification of any additional reserves held

c) Any additional performance margin

Table 6-5: Mass-to Orbit

Description	Mass	Units
Max Primary and Secondary Space Vehicle Mass Used		lb
Structural Interface Hardware and Spacer Adapters (See Note 1)		lb
2% Propellant Mass Margin (See Note 2)		lb
Instrumentation Margin	75	lb
Total Mass		lb

Note 1: Mass of the Structural Interface Hardware and Spacer Adapters is to be estimated by the Offeror. This is the structural interface hardware, including spacer adapters, provided by the Launch Service Contrator. This structural interface hardware is between the IP-ESPA and the STPSat-6 payload adapter and between the IP-ESPA separation systems and the LV (reference MRD attachment to the MRA, paragraph 3.2.4).

Note 2: 2% Propellant Mass Margin is 2% of the proposed launch vehicle system performance capability to the reference orbit in Table 6-1 with Orbital Debris Mitigation Standard Practices compliance.

6.1.2.2 The Offeror shall provide the planned STP-3 Mission Profile including upper stage disposal approach (Orbital Debris Mitigation Standard Practices compliance is not waiverable). The Offeror shall provide methodology and results demonstrating ≥ 90% probability of success for completing the planned upper stage disposal. The mission profile shall include the proposed launch site and significant sequence of events to include times with respect to liftoff. At a minimum, the sequence of events shall include the following mission profile events listed below (a-i).

a. First stage engine start

b. Solid rocket motor burnout and jettison sequence (if applicable)

c. First stage engine cutoff and separation

d. Payload fairing jettison

e. Upper stage engine burn ignition(s),cutoff(s) and coast time(s)

f. Upper stage and PL separations (Primary SV separation, Primary/Secondary SV interface hardware separation, Secondary SV separation)

g. Initiation of upper stage CCAMs

h. Upper stage disposal initiation

i. End of mission for upper stage, where end of mission is defined as the completion of passivation with no further planned maneuvers, or through upper stage impact after controlled reentry

Additionally, the Offeror shall provide orbital parameters (as defined in Table 6-1) of the

PL at separation (including the effects of separation ΔV).

6.1.2.3 The Offeror shall provide data for any portion of the STP-3 mission profile that has been flight demonstrated (T-0 to disposal burn) by the proposed or relevant current family of launch vehicle system. Examples of data could include a table of demonstrated burn durations vs. planned burn durations; demonstrated coast durations vs. planned; re-entries achieved vs. planned; etc. The Offeror shall also identify on which flight the mission profile portion was demonstrated. The Offeror shall identify any portion of the mission profile that has not yet been flight demonstrated by proposed or relevant current family of launch vehicle system. Undemonstrated portions of a mission profile may include, but are not specifically limited to:

a. Total proposed mission duration from launch to End of Mission as defined in Section 6.1.2.2.i is greater than 10 minutes longer than a previously flown mission
b. Number of proposed upper stage engine relights is greater than previously flown
c. Coast duration between upper stage engine relights is greater than 5 minutes from a previously flown mission
d. Booster or upper stage throttle settings have not been previously flown
e. Proposed CCAM or upper stage disposal solution have not been previously flown (per EELV SPRD, Rev. A)
f. Radiation environments not previously demonstrated

If any of the Offeror's previous flights do not demonstrate portions of the STP-3 mission profile to include, but not limited to 3. a–f, then the Offeror shall provide a detailed engineering and risk analysis of the affected launch vehicle subsystems and components, and any risks or limiting factors associated with the design or configuration of the affected subsystems. The Offeror shall provide a mitigation approach that addresses the identified risks associated with the undemonstrated portion of the proposed mission profile.

6.1.2.4 The Offeror shall provide the ground trace and instantaneous impact point trace through end of mission or through upper stage impact if conducting a controlled reentry, with identification of nominal jettisoned body impacts. The nominal jettisoned body impacts shall occur over water. Nominal jettisoned bodies include those planned under a controlled recovery operation. If the Offeror plans to de-orbit the upper stage, they shall provide the impact ellipse. The upper stage reentry location shall be in a broad ocean area. Casualty expectation value, if applicable, and supporting analysis including mission reliability and failure scenarios shall be provided.

6.1.2.5 The Offeror shall provide historical data, from T-0 launch through upper stage disposal, on the final mission design trajectory predictions and flight data for mission profiles (including sequence of events and PL orbital parameters at separation) and for vehicle acceleration comparison plots for the four most recent launches of a launch vehicle system similar to the proposed launch vehicle system, or as many as have been launched if fewer than four launches have taken place. Individual acceleration plots shall be provided for each burn of

each stage. If historical flight data does not corroborate predictions, the Offeror shall provide detailed supporting rationale to explain differences.

6.1.3 SUB-FACTOR 3: LAUNCH OPERATIONS CONCEPT OF OPERATIONS (CONOPS)

6.1.3.1 The Offeror shall provide a Launch Operations CONOPS which includes the following elements. A description of the proposed launch operations flow from the time the Government provides the Primary and Secondary SVs to the Offeror as Government property for encapsulation through liftoff, to include any contingency procedures;

6.1.3.2 PL processing and encapsulation procedures which are oriented to the processing facility the Launch Service Provider proposes to use for an East Coast launch;

6.1.3.3 An access provision report and technical drawings showing access platforms to the payload fairing access doors on the integrated LV/PL stack IAW the requirements defined in the MRA, paragraphs 2.1, 3.1.6, and 3.2.6.; and

6.1.3.4 A description and diagrams of propellant-compatible interface plumbing and aspirator IAW the contingency offload requirements defined in the MRA, paragraphs 2.1, 3.1.6, and 3.2.6.

6.1.4 SUB-FACTOR 4: RIDESHARE/INTEGRATION MANAGEMENT

6.1.4.1 The Offeror shall provide a detailed plan for integration of STPSat-6 and IP-ESPA into the integrated payload stack (IPS) as shown in Figure 1.

6.1.4.2 The Offeror shall provide a detailed plan for integration of the IPS onto the launch vehicle as shown in Figure 1.

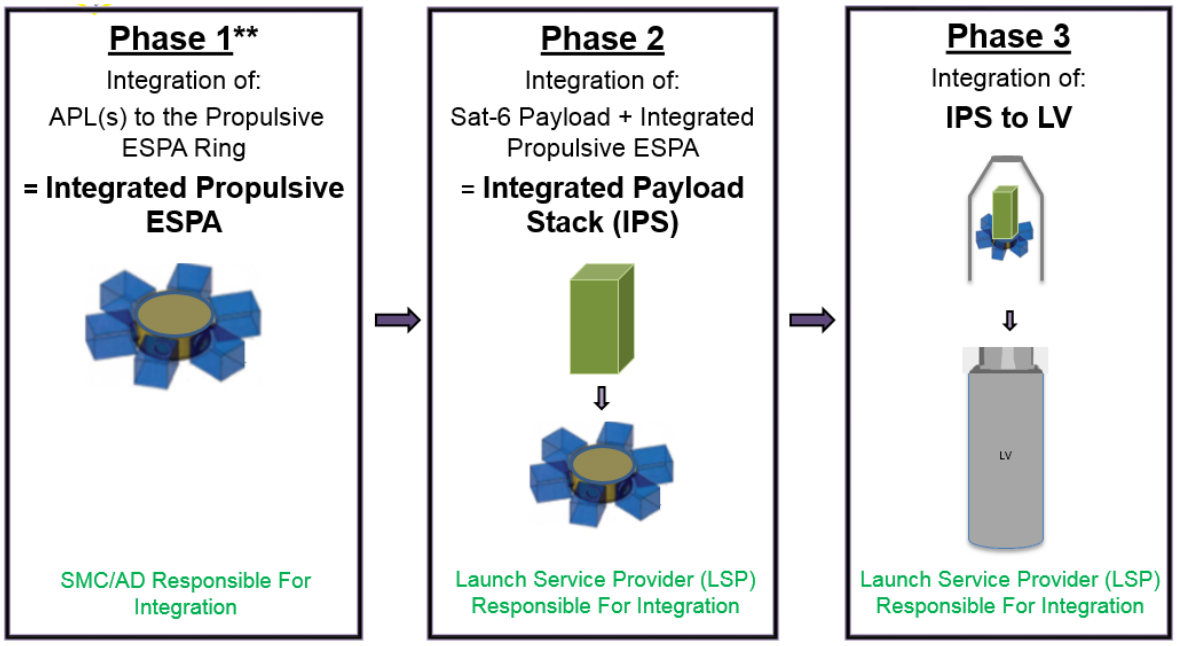
6.1.4.3 The Offeror shall provide a detailed plan to manage and process classified payloads (Secret for STPSat-6 and up to Special Access Program/Special Access Required for the IP-ESPA).

6.1.4.4 The Offeror shall provide a plan and process to accommodate final definition of the IP-ESPA configuration (e.g., change in number of attached auxiliary payload(s) (APL[s]), change in mass of individual attached payloads, change in propellant mass) up to Launch (L) – 12 months. The offeror shall also provide the latest date after L-12 months at which such a change can be accommodated.

6.1.4.5 The Offeror shall provide relevant examples with their proposal of past Rideshare missions and describe the processes used for multi-SV/payload integration to the IPS, and IPS

integration to the launch vehicle. Examples of a propulsive ESPA or similar Rideshare capability is preferred, however, other Rideshare integration efforts may be included.

Figure 1: Integration Phases*



* The figure and dimensions are not to scale and is used for illustrative purposes only to convey the overall mission integration responsibilities. The figure does not wholly represent the actual mission design.
** The Offeror is not responsible for the integration of Phase 1

6.2 FACTOR 2: SCHEDULE

6.2.1 SUB-FACTOR 1: INTEGRATED MASTER SCHEDULE (IMS)

The Offeror shall provide a Microsoft Project Integrated Master Schedule (IMS) and Schedule Risk Assessment (SRA) for the STP-3 launch services proposed IAW the following:

6.2.1.1 The Offeror shall construct the STP-3 IMS as follows:

6.2.1.1.1 The IMS shall include the following elements at a minimum:

a. Discrete tasks consistent with all proposed work;
b. Task durations based on an approximation of required resources;
c. Relationships/dependencies that identify how predecessor and successor tasks and milestones are logically linked;
d. Milestones;
e. Total float/slack;
f. Task and milestone descriptions that clearly identify the scope and deliverable of the work being accomplished, including Level of Effort (LOE) tasks;
g. Identified Critical Path
h. Identified Near Critical Path

6.2.1.1.2 The IMS shall be an integrated, logically driven network constructed at the lowest level of tasks that form the network to identify a valid critical path.

6.2.1.1.3 The IMS shall identify the near Critical Path(s) based on tasks with 1–14 calendar days of total slack.

6.2.1.1.4 The IMS tasks shall have traceability to the Work Breakdown Structure (WBS) with a text field which maps the task to the WBS section (Appendix A). For every WBS section in the IMS, the level of detail shall be at least one level lower than the lowest WBS element to create an integrated network of tasks to support the full scope of work of the proposed STP-3 launch services WBS.

6.2.1.1.5 The IMS task durations shall be supported by the resource-loading of workforce (labor) resources. The task durations shall be based on the Offeror's estimation of the personnel and skillsets required to accomplish the scope of each task. The resource sheet (within Microsoft Project) shall identify the specific workforce resources at the lowest level required to demonstrate credibility of the task duration with a description of the personnel and skillsets required for each task. The Offeror shall not assign resources to milestone events.

6.2.1.1.6 The Offeror shall support IMS task durations excluding LOE tasks, Schedule Visibility Tasks and milestones with at least one or more of the following: actual historical performance data; and, rationale/lessons learned. To support the credibility of task durations, the Offeror may provide statement(s) of assumptions. The Offeror shall provide a summary of historical performance data and rationale/lessons learned used to determine all task durations. The Offeror shall provide actual data and basis of estimation (historical performance data, rationale/lessons learned and statements of assumptions) for all Critical Path and near Critical Path within the schedule narrative.

6.2.1.1.7 The Offeror shall identify all schedule margin within the IMS.

6.2.1.2 The IMS shall reflect the following activities sufficient to support the STP-3 launch services as follows:

6.2.1.2.1 The IMS shall reflect either a start date no earlier than 3QFY17 or the date needed to begin procurement of the longest lead hardware, and support an ILC of 15 Jun 2019.

6.2.1.2.2 The IMS shall encompass all tasks required to accomplish the STP-3 launch services proposed from contract award to contract completion, to include activities to accomplish the tasks in the PWS and CDRLs, IAW the WBS.

6.2.1.2.3 The IMS shall identify all critical events to include but not limited to the following: LV production with identification of the longest lead hardware; testing at the component, subsystem, system, and integrated level; major reviews; integration of IP-ESPA to STPSat-6; integration of the IPS to the launch vehicle; handling of classified SVs/APLs; final definition of the IP-ESPA configuration up to L-12 months; encapsulation; transport; integrated testing; LV/PL mate; and, Initial Launch Capability (ILC).

6.2.1.2.4 If applicable, the IMS shall include tasks sufficient to accomplish the non-recurring engineering work as described in paragraph 6.2.2.1 in support of the STP-3 launch services, to include appropriate durations. Non-recurring engineering work closure plan tasks do not need to be resource loaded.

6.2.1.2.5 The Offeror's proposal shall include the ILC of all forecasted launches during the timeframe of contract start to the STP-3 ILC as part of the schedule narrative. The Offeror's proposal shall also provide a summary of critical milestone events (booster, upper stage, and

fairing ship dates) for the Offeror's other launches during the timeframe of contract start to ILC for the STP-3 launch services proposed as part of the schedule narrative.

6.2.1.3 Schedule Risk Assessment (SRA) – The Offeror shall perform a SRA of the STP-3 launch services IMS to predict the probability of project completion to support the STP-3 ILC IAW the sub-criteria below:

6.2.1.3.1 The Offeror shall perform a 10,000-iteration Monte Carlo simulation-based SRA, and provide the results of the SRA in the Schedule Narrative.

6.2.1.3.2 The SRA results shall provide a cumulative probability distribution (S-curve) for ILC including specific completion dates for every 10th percentile from 10% - 90%.

6.2.1.3.3 The Offeror shall develop individual three-point estimates (best case, most likely, and worst case) for all tasks on the Critical Path, near Critical Path, non-recurring engineering work, and medium or high risk tasks captured in the Offeror's Risk Management Plan IAW paragraph 6.2.2.2 below. The Offeror shall provide fields within the Microsoft Project File listing the three-point estimates.

6.2.1.3.4 The three-point estimates shall be supported by the Offeror's actual historical performance data if the task has been previously performed. If the task has not been previously performed, the Offeror shall provide rationale to justify three-point estimates.

6.2.1.4 Defense Contract Management Agency (DCMA) 14 Point Schedule Assessment – The Offeror shall construct the IMS IAW with the DCMA 14 Point Schedule Assessment guidelines as described in paragraphs 6.2.1.4.1–6.2.1.4.10 excluding Invalid Dates, Resources, Missed Tasks, and Baseline Execution Index. The Offeror shall provide justification for each component of the IMS that falls beyond the guideline thresholds. This analysis shall exclude Completed Tasks, LOE tasks, Summary Tasks, and Milestones.

6.2.1.4.1 Logic – The number of activities that are missing a predecessor, a successor or both should not exceed the threshold of 5% of the activities within the Offeror's IMS. Provide justification for the use of predecessor/successor relationships beyond the 5% threshold of all activities within the Offeror's IMS.

6.2.1.4.2 Leads – The number of activities with leads (negative lag) should not exceed the threshold of 0% of the activities within the IMS. Provide a justification for each lead relationship used in the IMS.

6.2.1.4.3 Lags – The total number of activities with lags should not exceed the threshold of 5% of the activities within the Offeror's IMS. Provide justification for the use of lag relationships beyond the 5% threshold for all activities within the Offeror's IMS.

6.2.1.4.4 Relationship Types – The total number of activities with Finish to Start (FS) logic links should be at least 90%. Tasks with all other logic links [Start-to-Finish (SF); Start-to-Start (SS); and Finish-to-Finish (FF)] should be less than the threshold of 10% of total tasks within the IMS. Provide justification for the use of logic links other than (FS) relationships beyond the 10% threshold for all activities within the Offeror's IMS.

6.2.1.4.5 Hard Constraints – The number of activities with hard constraints [Must-Finish-On, Must-Start-On, Start-No-Later-Than, & Finish-No-Later-Than] should not exceed the threshold of 5% of the activities within the Offeror's IMS. Provide a justification for the use of hard

constraints beyond the 5% threshold for all activities within the Offeror's IMS. If soft constraints are needed other than As-Soon-As-Possible [Start-No-Earlier-Than and Finish-No-Earlier-Than] the Offeror shall provide a field within the Microsoft Project File that contains a summary justification of these constraints used in the IMS.

6.2.1.4.6 High float – The number of activities with a total float greater than two (2) months (44 working days) should not exceed the threshold of 5% of the activities within the Offeror's IMS. Provide justification for the use of activities with a total float greater than 2 months beyond the 5% threshold of the activities within the Offeror's IMS.

6.2.1.4.7 Negative Float – The number of activities with a total float of less than zero (0) days should not exceed the threshold of 0% of the activities within the Offeror's IMS. Provide justification for the use of activities with a total float of less than 0 days within the Offeror's IMS.

6.2.1.4.8 Long Duration – The number of activities with a duration greater than two (2) months (44 working days) should not exceed the threshold of 5% of the activities within the Offeror's IMS. Provide justification for the use of activities with a duration greater than 2 months that exceeds the 5% threshold of the activities within the Offeror's IMS.

6.2.1.4.9 Critical Path Test – When an activity's duration on the critical path is intentionally slipped by "X" amount of days (assuming zero float), where "X" is equal to a gross increase in duration (e.g., 600 days), the critical path within the Offeror's IMS should demonstrate a corresponding extension of "X" amount of days to the project completion date. If the project completion date is not delayed in direct proportion to the amount of intentional slip that is introduced into the critical path, then there is broken logic somewhere in the Offeror's schedule network. The Offeror's IMS should not contain broken logic (missing predecessors and/or successors). Provide justification if the IMS contains broken logic.

6.2.1.4.10 Critical Path Length Index – The Critical Path Length Index (CPLI) is equal to the Critical Path Length (CPL) in days + the Total Float (TF) in days divided by the CPL in days. The ratio of the critical path length plus the total float to the critical path length within the Offeror's IMS should = 1, with > 1 being favorable, and < 1 being unfavorable. Provide justification if the CPLI of the Offeror's IMS is < 1.

6.2.2 SUB-FACTOR 2: RISK MITIGATION PLANS

6.2.2.1 As stated in section 6.2.1.2.4, the Offeror shall provide a schedule with task durations to complete all remaining open non-recurring engineering (NRE) work. All NRE tasks shall support closure of open items by L – 12 months. The Offeror shall also identify NRE tasks on the critical path for this STP-3 mission. The schedule shall include any applicable analysis, development, fabrication, and qualification testing.

6.2.2.2 The Offeror shall provide a risk mitigation plan for the family of launch vehicle systems proposed to address any jointly identified risks (Low-Medium, Medium, and High) to include risks identified by the Joint Work Plan, EELV Engineering Review Boards, EELV Flight Readiness Reviews, and other technical reviews. Risk ratings are defined by the Technical Issue Resolution Process (TIRP). The Offeror shall identify any Low-Medium risks previously

accepted by the Government via EELV Spaceflight Worthiness Certification in lieu of a risk mitigation plan. The risk mitigation plan shall support low risk rating as defined by the TIRP prior to ILC. Should a mishap or flight anomaly be opened or under investigation, the Government reserves the right to require a risk mitigation plan specifically for that mishap or flight anomaly.

6.3 FACTOR 3: SMALL BUSINESS PARTICIPATION

The Offeror shall provide a Small Business Participation Commitment Document (SBPCD) that will include information on how the offeror will meet the small business participation Minimum Quantitative Requirement (MQR) of 4% of the total contract value (including all options). The Offeror shall complete Attachment 3B, SBPCD, which shall consist of the following information:

a) A narrative explaning their proposed approach to meet the small business participation MQR of 4%, and

b) The total combined percentage of work to be performed by both other than small and small businesses

The Offeror shall provide evidence of at least one (1) arrangement with, or the extent of the commitment to use, small businesses (e.g., contractual documentation or letter of intent) with the small business concerns identified within the subcontracting plan submitted IAW FAR clause 52.219-9.

The SBPCD is a separate document than the Subcontracting Plan required by FAR 19.7 and will be evaluated per the evaluation criteria. The subcontracting plan will be assessed IAW FAR 19.704. Both the SBPCD and the Subcontracting Plan will be incorporated into the contract as attachments.

Proposals that do not contain a Small Business Participation Commitment Document and a Subcontracting Plan that meets this requirement will not be eligible for award.

7 VOLUME III – PAST PERFORMANCE

7.1 FACTOR 4: PAST PERFORMANCE

7.1.1 PAST PERFORMANCE INFORMATION (PPI) FORMS

7.1.1.1 Each offeror shall submit a past performance volume with its proposal, containing past performance information IAW the format contained in Appendix B. This information is required on the offeror.

7.1.1.2 The Government will use data provided by each offeror in this volume as well as data obtained from other sources in the evaluation of past performance.

7.1.2 CONSENT/AUTHORIZATION LETTERS

Along with the information required in this section, the Offeror shall submit a consent letter, Appendix C, executed by each subcontractor, authorizing release of adverse past performance

information to the offeror so the offeror can respond to such information. For each identified effort for a customer, the offeror shall also submit a client authorization letter, Appendix D, authorizing release to the Government of requested information on the offeror's performance.

7.1.3 RECENT AND RELEVANT CONTRACTS

Submit information IAW Appendix B: Past Performance Information, on four recent and relevant contracts that demonstrate your ability to perform the proposed effort; reference Attachment 6, paragraphs 7.4 and 7.5 for recency and relevancy definitions.

7.1.3.1 SPECIFIC CONTENT

7.1.3.1.1 Offerors are required to explain what aspects of the contracts are deemed relevant to the proposed effort and to what aspects of the proposed effort they relate. This may include a discussion of efforts accomplished by the offeror to resolve problems encountered on prior contracts as well as past efforts to identify and manage program risk. Merely having problems does not automatically equate to an unacceptable rating, because the problems encountered may have been on a more complex program, or an offeror may have subsequently demonstrated the ability to overcome the problems encountered. If the offeror has encountered problems on previous efforts, then the offeror is required to clearly demonstrate management actions employed in overcoming those problems and the effects of those actions in terms of improvements achieved or problems rectified. This may allow the offeror to be considered more favorably than without evidence of problem resolution. For example, submittal of quality performance indicators or other management indicators that clearly support that an offeror has overcome past problems is required.

7.1.3.1.2 Offerors shall provide the narrative to support how the past performance information submitted for evaluation demonstrates the offeror's ability to meet the performance and schedule factors.

7.1.4 PAST PERFORMANCE QUESTIONNAIRES (PPQS)

The Government will provide a PPQ template as provided in Appendix E.

7.1.4.1 If data is available, then four PPQs shall be submitted on relevant past performance efforts.

7.1.4.2 The responsibility to send out and track the completion of the PPQs rests solely with the offeror.

7.1.4.3 Questionnaire respondents shall email completed PPQs directly to the following point of contact listed below by the proposal submittal date. Submission of contact information for previous relevant contracts IAW Attachment 5 is due no later than 30 days after RFP release. The information to be submitted shall include customer name with two points of contact (name and title, email, phone number, and address). Information contained in a completed PPQ shall be considered source selection information and shall not be released to the offeror.

Los Angeles Air Force Base
Attn: SMC/LE, Ms. Dzung Dom
483 N. Aviation Blvd
El Segundo, CA 90245

E-Mail to: dzung.dom@us.af.mil

7.1.4.4 Even though the assessment of Past Performance is separate and distinct from Determination of Responsibility required by FAR 9, past performance information contained herein may be used to support the Determination of Responsibility for the successful awardee.

7.1.4.5 SMALL BUSINESS SUBCONTRACTING HISTORY

7.1.4.5.1 Pursuant to DFARS 215.305, all Offerors (large and small) shall provide a narrative describing their use of small business concerns over the past three (3) years on the recent, relevant efforts submitted for Government consideration under this factor. Proposals shall describe the actual use of small businesses as subcontractors, joint venture/teaming partners and demonstrate the extent of compliance with FAR 52.219-8, Utilization of Small Business Concerns, the Offeror's small business subcontracting plans (large businesses only), and any related contract incentives. Large business Offerors shall specifically describe the small business goals for all categories of small business and the extent to which the goals were achieved in contracts that required subcontracting plans for the past three years. To supplement the narrative summary, large business Offerors shall provide the most recent Individual Subcontracting Reports (ISRs) or Summary Subcontract Reports (SSR) for each relevant contract performed within the last three years that required submission of such reports. These subcontracting reports will not count against the page limitations for the Past Performance volume.

7.1.4.5.2 If necessary to meet the four report requirement, Offerors may include subcontracting reports associated with contracts other than those for which past performance information sheets were submitted. In such cases, the proposal shall clearly state the reason(s) for not providing small business data associated with the contracts otherwise cited as relevant for past performance consideration hereunder.

8 VOLUME IV – PRICE

8.1 FACTOR 5: PRICE

The Offeror shall fill in prices for Table 8-4 as instructed in paragraphs 8.1 through 8.5 below. The Offeror shall not include price information in any other portion of the proposal, except the Price Volume or Model Contract. When completing Table 8-4, the Offeror shall fill in the same prices as those proposed in the model contract for Contract Line Item Number (CLINs) 0001 through 0007 which is the Total Proposed Price (TPP); this also includes the Quick Reaction/Anomaly Resolution amount. The value adjustments for orbital insertion accuracy and mass-to-orbit are then applied to the TPP, that value then becomes the Value Adjusted Total Evaluated Price (VATEP). The Government Property amount is then applied to the VATEP value, which becomes the Total Evaluated Price.

8.2 MISSION UNIQUE REQUIREMENTS AND OPTIONS

The Offeror shall provide a proposed total price for each mission unique requirement and option listed in Table 8-4 below; reference Table 3-1 and 3-2 in the MRA for a detailed list of mission unique requirements and options. Note that unit pricing shall be provided in the Model Contract.

8.3 QUICK REACTION/ANOMALY RESOLUTION

For Quick Reaction and Anomaly Resolution, the Offeror shall complete Table 8-1 as shown below and provide the resulting number (Total Proposed Dollars) for Table 8-4. For the model contract, the Offeror shall provide one composite rate (calculated as Total Proposed Dollars/25,000 Hours) which will be effective for all years of the contract period of performance.

TABLE 8-1: QUICK REACTION AND ANOMALY RESOLUTION CALCULATION

	(A) Hours	(B) Proposed Rate	(C) Proposed Annual Dollars (A*B)
Yr 1	5,000		
Yr 2	7,500		
Yr 3	12,500		
Total Proposed Dollars			

8.4 VALUE ADJUSTED TOTAL EVALUATED PRICE

The Offeror shall provide projected value adjustments for orbital insertion accuracy and mass-to-orbit capability proposed above the threshold requirements in Table 8-4, and the Government will verify the proposed projected values by analysis. The value adjustments listed in Table 8-2 shall be used to calculate projected value adjustments.

Table 8-2: VATEP Values

	Threshold	**Value Adjustment**	**Objective**
Delta V	49.5 ft/s	$394,230 / 1 ft/s	0 ft/s
Max Value Adjustment for Orbital Insertion Accuracy			$19,500,00
Adjustment	7,202 lb	$11,592/lb	10,024 lb
Max Value Adjustment for Mass-To-Orbit			$32,700,000

8.5 GOVERNMENT PROPERTY (GP)

If the Offeror requires the use of GP, the Offeror shall complete Table 8-3 in Microsoft Excel format using the acquisition cost information from Attachment 8 and the rental equivalency method described in FAR 52.245-9(e)(2) as laid out below:

- In Column (A), identify the requested GP
- In Column (B), identify the acquisition cost from Attachment 8 and list the dollar value

- In Column (C), multiply column (B) by 2% (round to the nearest dollar) to determine the monthly acquisition cost of the item and list the dollar value
- In Column (D), divide column (C) by 720 to determine the hourly rental rate (round to the nearest cents) and list the dollar value
- In Column (E), propose the rental time required (round to the nearest whole hour) and list the value; "rental time" is defined in 52.245-9(a)
- In Column (F), multiply column (D) by (E) (round to the nearest dollar) to determine the total rental charge for the requested item and list the dollar value
- Add the sum of Rental Charges in Column (F) and include in Table 8-4

Table 8-3: Rental Equivalency for Government Property Use

(A) Item Requested	(B) Acq Cost ($)	(C) Monthly Acq Cost (Multiply B *2%) ($)	(D) Hourly Rental Rate (Divide C by 720) ($)	(E) Rental Time	(F) Rental Charge (Multiply D*E) ($)
Item A	$100,000	$2,000	$2.78	400	$1,112
Item B	$77,777	$1,556	$2.16	250	$540
Sum of Rental Charges for All GP Items: (Insert Sum into Table 8-2)					**$1,652**

** Notional cost figures are included in the table as examples only*

8.6 ROUNDING

All dollar amounts provided shall be rounded to the nearest dollar. All labor rates shall be rounded to the nearest dollar.

Table 8-4: Total Evaluated Price Calculation

CLIN	DESCRIPTION	CONTRACT TYPE	TOTAL PRICE
0001	LAUNCH VEHICLE PRODUCTION	FFP	
0002	MISSION INTEGRATION/LAUNCH OPS/ SPACEFLIGHT WORTHINESS CERTIFICATION	FFP	
0003	MISSION UNIQUE ACTIVITIES	FFP	
0004	OPTION STP SAT-6 NITROGEN PURGE LINE	FFP	
0005	OPTION IP-ESPA DRAG ON NITROGEN PURGE LINE	FFP	
0006	OPTION ADDITIONAL PAYLOAD FAIRING DOORS BEYOND FIRST TWO (2)	FFP	
0007	OPTION ADDITIONAL ELECTRICAL T-0 UMBILICAL HARNESS FOR INTEGRATED PROPULSIVE ESPA	FFP	
	QUICK REACTION/ANOMALY RESOLUTION (SMC/LE--H005) _____ (FIXED PRICE RATE) * 25,000 HOURS	FFP	
TOTAL PROPOSED PRICE (TPP)			
	ORBITAL INSERTION ACCURACY VALUE ADJUSTMENT		
	MASS-TO-ORBIT VALUE ADJUSTMENT		
VALUE ADJUSTED TOTAL EVALUATED PRICE (VATEP)			
	RENTAL EQUIVALENCY OF GOVERNMENT PROPERTY		
TOTAL EVALUATED PRICE (TEP)			

9 VOLUME V – MODEL CONTRACT

9.1 GENERAL INSTRUCTIONS

The purpose of this volume is to provide information to the Government for preparing the contract document and supporting file. The Offeror's proposal shall include one (1) signed and dated copy of the Standard Form (SF) 1449, delivered with the SF1449 Continuation pages, the Addendum, the Contract Documents, and Exhibits and Attachments. The original should be clearly marked and should be provided without any punched holes. The SF1449 shall not have any proprietary markings. Fill in all blanks in the Solicitation. Specifically, complete the following:

9.2 SF1449 SOLICITATION/CONTRACT FORM

The Offeror shall complete blocks 12, 17, and 30 on the Standard Form (SF) 1449 – Solicitation/Contract/Order for Commercial Items. The Offeror shall use the SF 1449 Continuation in place of completing blocks 19, 20, 21, 22, and 23. The signature by the Offeror on the SF1449 constitutes an offer, which the Government may accept. The "original" copy shall be clearly marked under separate cover and shall be provided without any punched holes.

9.3 SF1449 CONTINUATION SUPPLIES OR SERVICES AND COSTS/PRICES:

The Offeror shall provide prices on all CLINs except for CLINs 9001-9003, which are not separately priced.

9.4 ADDENDUM

For SMC/LE -- H005 QUICK REACTION AND ANOMALY RESOLUTION, the Offeror must propose a fixed price composite hourly rate.

9.5 CONTRACT DOCUMENTS, EXHIBITS AND ATTACHMENTS

9.5.1 ATTACHMENT 3A: SUBCONTRACTING PLAN

The offeror shall provide a subcontracting plan IAW FAR 52.219-9 and AFFARS 5319.704. The subcontracting plan will be incorporated into the contract.

9.5.2 ATTACHMENT 3B: SMALL BUSINESS PARTICIPATION COMMITMENT DOCUMENT

The offeror shall provide Small Business Participation Commitment Document (SBPCD) IAW section 6.3. The SBPCD will be incorporated into the contract.

9.5.3 ATTACHMENT 7: MISSION REQUIREMENTS ANNEX STP-3

Any additional proposed performance or capability that is above the threshold must be included in the table in section 3.3 of the MRA at time of proposal submission.

9.5.4 ATTACHMENT 8: GOVERNMENT PROPERTY

If the Offeror requires the use of GP, the Offeror shall complete and submit Attachment 8, Government Property, IAW procedures and definitions detailed in DFARS 245.103-72 and 245.201-70. For more information, see the Department of Defense Procurement Toolbox at http://www.dodprocurementtoolbox.org/site/detail/id/26. Failure to complete each applicable data field in Attachment 8 may render the Offeror non-responsive and unawardable. For each item of GP requested, the "Use As Is" column shall be filled in as "true."

For each item of GP requested, the Offeror shall provide a written authorization of availability from the cognizant Administrative Contracting Officer (ACO). GP proposed without an authorization from the cognizant ACO may render the Offeror non-responsive and unawardable. All supporting documentation associated with GP shall be submitted outside of the model contract but within Volume IV.

9.5.5 ATTACHMENT 9: PAYMENT PLAN

The Offeror shall fill in the dollar amount associated with each payment milestone in Table 1 of Attachment 9, Payment Plan. This plan will become an attachment to the contract. IAW FAR 32.204 alternative financing terms shall not be accepted.

9.5.6 POTENTIAL ORGANIZATIONAL CONFLICT OF INTEREST (OCI)

1) IAW FAR 9.5, Organizational and Consultant Conflicts of Interest, the Contracting Officer has analyzed the planned acquisition and determined that no known actual or potential OCI

situations exist with respect to this solicitation.

2) The Offeror shall perform its own OCI analysis and submit the results of that analysis as part of its proposal. Specifically, the Offeror shall analyze the planned acquisition for actual or potential OCI situations associated with its or any of its teammate's or subcontractor's performance under any contract it or any of its teammates or subcontractors has been or may be awarded by any federal agency or other entity. The Offeror shall describe in detail the methodology used to identify actual or potential OCI issues. If the Offeror identifies any actual or potential OCIs with respect to the performance of itself or its subcontractors or teammates, the Offeror shall provide an OCI Mitigation Plan to be incorporated as Attachment 10 to any resulting contract. At a minimum, the plan shall address all of the items identified in the most current version of SMC's OCI Mitigation Plan Checklist provided in the Bidder's Library. Any proposed avoidance or mitigation techniques shall be consistent with FAR 9.5 and the most recent decisions of the Government Accountability Office and the United States Court of Federal Claims.

3) If award is made to the Offeror, the resulting contract may include an organizational conflict of interest limitation applicable to subsequent Government work, at either a prime contract level, at any subcontract tier, or both. During evaluation of proposals, the Government may, after interactions with the Offeror and consideration of ways to mitigate or avoid identified actual or potential conflicts of interest, insert a clause or term and condition in the resulting contract which disqualifies the Offeror from further consideration for award of future contracts.

4) Resolution of OCI issues are treated in a manner similar to the Contracting Officer's contractor responsibility determination. Any communications necessary to resolve OCI issues shall not be considered discussions. As such, the Contracting Officer may issue Evaluation Notices to the Offeror prior to any decision to enter into discussions in order to resolve questions or concerns with the Offeror's OCI analysis or mitigation plan.

9.6 SOLICITATION PROVISIONS

All representations and certifications must be completed IAW FAR 52.212-3 deviation (DEV) in the model contract, Offeror Representations and Certifications- Commercial Items.

9.7 SIGNATURE

The Offeror's signature on the SF 1449 constitutes an offer, which the Government may or may not accept. Proposals without manual wet signatures may warrant a rejection of the proposal submittal. Offerors are required to meet all solicitation requirements, including terms and conditions, representations and certifications, and technical requirements. Therefore, any tailoring to the solicitation is not allowed and may warrant a rejection of the proposal.

FA8811-16-R-0007

Attachment 5

Appendix A

Work Breakdown Structure

29 September 2016

APPENDIX A: Work Breakdown Structure

1.0	Launch Vehicle System (STP-3)
1.1	Mission Integration
1.1.1	Mission Standard Integration
1.1.2	Mission Unique Integration
1.2	Mission Assurance
1.3	Supplier Readiness
1.4	Mission Unique Development/Design
1.5	System Engineering, Integration, Test, Program Management
1.5.1	Program Management
1.5.2	System Engineering
1.5.3	Factory Support
1.5.4	Special Studies
1.6	Transportation
1.7	Launch Operations
1.7.1	Launch Support
1.7.1.1	Launch Crew (mate, checkout, launch)
1.7.1.2	P/L Encapsulation
1.7.2	Launch Operations SEPM
1.7.2.1	Launch Operations Program Management
1.7.2.2	Launch Operations System Engineering
1.7.3	Site Maintenance
1.7.3.1	Sustainment Propellants
1.7.3.2	Other Maintenance
1.7.4	Base Support
1.7.5	Range Operations Services
1.7.6	Propellants (Vehicle)

1.8	Launch Vehicle
1.8.1	Propulsion
1.8.1.1	Booster Engine
1.8.1.2	Upper Stage Engine
1.8.1.3	Solid Rocket Motors
1.8.2	Payload Accommodations
1.8.2.1	Payload Fairing
1.8.2.2	Payload Attach Fitting (Adapter)
1.8.2.3	Mission Unique Hardware
1.8.3	Core Vehicle
1.8.3.1	Booster Structure
1.8.3.2	Intertank Adapter & Skirts
1.8.3.3	Aft Transition Structure
1.8.3.4	Heat Shield
1.8.4	Upper Stage
1.8.4.1	Upper Stage Structure
1.8.4.2	Interstage Adapters, Stub Adapters, Forward Adapters
1.8.5	Mission Assurance Instrumentation
1.8.6	Guidance and Control (Avionics)
1.8.7	Integration, Assembly, Test & Checkout (IAT&C)
1.9	Training
1.10	Other

FA8811-16-R-0007

Attachment 5

Appendix B

Past Performance Information Form

29 September 2016

PAST PERFORMANCE INFORMATION FORM

Provide the information requested in this form for each contract/program (citation) being described. Provide frank, concise comments regarding your performance on the contracts you identify. Provide a separate completed form for each contract/program submitted. Limit the number of citations submitted and the length of each submission to the limitations set forth at Attachment 5, paragraph 7.1.1.1 of this solicitation.

A. Offeror Name (Company/Division): _____
CAGE Code: _____
DUNS Number**:** _____

B. Program Title: _____

C. Contract Specifics:

1.Contracting Agency or Customer: _____
2.Contract Number: _____
3.Contract Type: _____
4.Period of Performance: _____
5.Original Contract $ Value: _____ (Do not include unexercised options)
6.Current Contract $ Value: _____ (Do not include unexercised options)
7.If Amounts for 5 and 6 above are different, provide a brief description of the reason**.**

_____
_____
_____
_____
_____
_____

D. Brief Description of Effort as __Prime or __Subcontractor

Please indicate whether it was development and/or production, or other acquisition phase (or Service) and highlight the portions of this contract considered most relevant to current acquisition.

_____
_____
_____
_____
_____
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_____
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_____
_____

E. Completion Date:
1.Original date: _____
2.Current Schedule: _____
3.Estimate at Completion: _____
4.How Many Times Changed: _____
5.Primary Causes of Change: _____

F. Primary Customer Points of Contact: (For Government contracts provide current information on both individuals. For commercial contracts, provide points of contact fulfilling these same roles).

1.Program Manager and/or Site Manager:
Name: _____
Office: _____
Address: _____
Telephone: _____
FAX Number:_____

2.Contracting Officer:
Name: _____
Office: _____
Address: _____
Telephone: _____
FAX Number:_____

G. Address any technical (or other) area about this contract/program considered unique.
_____
_____
_____
_____
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H. For each of the applicable sub-factors under the Performance and Schedule factor in Attachment 5, illustrate how your experience on this program applies to that sub-factor.

I. Describe the nature or portion of the work on the proposed effort to be performed by the business entity being reported here. Also, estimate the percentage of the total proposed effort to be performed by this entity and whether this entity will be performing as the prime, subcontractor, or a corporate division related to the prime (define relationship).

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Attachment 5

Appendix C

Subcontractor Consent Letter

29 September 2016

SUBCONTRACTOR/TEAMING PARTNER CONSENT LETTER
FOR THE RELEASE OF PAST PERFORMANCE INFORMATION
TO THE PRIME CONTRACTOR

Past performance information concerning subcontractors and teaming partners cannot be disclosed to a private party without the subcontractor's or teaming partner's consent. Because a prime contractor is a private party, the Government will need that consent before disclosing subcontractor/teaming partner past and present performance information to the prime contractor during exchanges. In an effort to assist the Government's Past Performance evaluation team in assessing your recent past performance relevancy and confidence, we request that the following consent letter be completed by the major subcontractors/teaming partners identified in your proposal. The completed consent letters should be submitted as part of your Past Performance Volume.

SAMPLE

Dear "Contracting Officer:"

We are participating as a (insert "subcontractor" or "teaming partner") with (insert name of prime contractor or name of entity providing proposal) in responding to the Department of the Air Force, Space and Missile Systems Center (SMC), Request for Proposal FA8811-16-R-0007 for the Space Test Program-3 (STP-3).

In order to facilitate the performance confidence assessment process we are signing this consent letter to allow you to discuss our past performance information with the prime contractor during the source selection process.

_____

_____

(Signature and title of individual who has the authority to sign for and legally bind the company)

Company Name:

Address:

FA8811-16-R-0007

Attachment 5

Appendix D

Client Authorization Letter

29 September 2016

CLIENT AUTHORIZATION LETTER

Past performance information concerning private sector contractors, subcontractors and joint venture partners cannot be disclosed to the Government without their consent. Client authorization letters are required for each identified effort for each customer. This letter will authorize release to the Government of requested information on the offeror's performance. The Government will need that consent before contacting commercial customers to assess the offeror's past performance. In an effort to assist the Government's Past Performance evaluation team in assessing your past performance relevancy and confidence, we request that the following client authorization letter be completed by any commercial customers identified in your proposal. The completed client authorization letters should be submitted as part of your Past Performance Volume.

Offerors should send with their list of references a letter similar to the following authorizing the reference to provide past performance information to the Government.

SAMPLE

Dear "Client:"

We are responding to a Department of the Air Force, Space and Missile Systems Center (SMC), Request for Proposal FA8811-16-R-0007 for the Space Test Program-3 (STP-3).

The Government requires those clients of entities responding to their solicitation to be identified, and their participation in the evaluation process is requested. In the event that you are contacted for information on work performed, you are hereby authorized to respond to those inquiries.

We have identified Mr./Ms._____ of your organization as the point of contact based on his/her knowledge of our work. Your cooperation is appreciated. Any questions may be directed to _____.

Sincerely,

FA8818-16-R-0007

Attachment 5

Appendix E

Past Performance Questionnaire

29 September 2016

PAST PERFORMANCE QUESTIONNAIRE (PPQ)

WHEN FILLED IN THIS DOCUMENT IS SOURCE SELECTION SENSITIVE INFORMATION IAW FAR 2.101 & 3.104

SECTION 1: CONTRACT IDENTIFICATION

A. Contractor: _____

B. Contractor Cage Code: _____

C. Contract number: _____

D. Contract type: _____

E. Was this a competitive contract? Yes _____ No _____

F. Period of performance: _____

G. Initial contract cost: $_____

H. Current/final contract cost: $_____

I. Reasons for differences between initial contract cost and final contract costs:
_____
_____
_____
_____
_____

J. Description of service provided:
_____
_____
_____
_____
_____
_____

SECTION 2: CUSTOMER OR AGENCY IDENTIFICATION

A. Customer or agency name: _____

B. Procuring Contracting Officer name, e-mail, and phone number: _____
_____

C. Customer or agency description (if applicable): _____
_____

SECTION 3: EVALUATOR IDENTIFICATION

A. Evaluator's name: _____

B. Evaluator's title: _____

C. Evaluator's email address: _____

D. Evaluator's phone/fax number: _____

Length of time (number of years/months) evaluator worked on subject contract: _____

SECTION 4: EVALUATION

Please indicate your satisfaction with the contractor's performance by placing an "**X**" in the appropriate block using the scale provided to the right of each question. This scale is defined as follows:

PERFORMANCE RATING

ACCEPTABLE - During the entire period, the contractor met the requirements of the contract and consistently performed at an acceptable level. Performance was accomplished with some problems, and the contractor took effective corrective action for those problems that did occur. If rated acceptable, add comments to justify the rating.

UNACCEPTABLE – During the entire period, the contractor did not meet the requirements of the contract and performance was at an unacceptable level. There were a number of serious problems that required extensive oversight and involvement, and corrective actions were either ineffective or non-existent. If rated unacceptable, add comments to justify the rating.

N/A NOT APPLICABLE - Unable to provide a rating. Contract did not include performance for this aspect, or information was not available. Do not know. Add comments as appropriate.

	A	U	N/A
Performance			
P1. How well did the contractor meet the technical requirements of the specification? Comment:_____ _____ _____			

	A	U	N/A
P2. How was the quality/integrity of technical data/report preparation efforts? Comment:_____ _____ _____			
P3. How successfully did the contractor manage and conduct requirements management and flow-down? Comment:_____ _____ _____			
P4. How well did the contractor conduct/support the Government's required technical reviews, Mission Assurance or Independent Readiness Review Teams? Comment:_____ _____ _____			
P5. How did the contractor implement quality processes, standard practices for computer hardware and software design, operation, maintenance, upgrades and configuration control? Comment:_____ _____ _____			
P6. How effective were the contractor's methodologies used for software/hardware qualification and flight testing? Comment:_____ _____ _____			
P7. How effective were the contractor's hardware procurement and fabrication control processes in proactively assuring that installed parts meet design criteria? Comment:_____ _____ _____			

	A	U	N/A
P8. How successfully did the contractor execute orbital payload insertion mission(s)? Comment:_____ _____ _____			
P9. How complete and structured was the contractor's design in terms of meeting technical requirements and presenting rigorous analysis of designs and design alternatives? Comment:_____ _____ _____			
P10. How cooperative and responsive was the contractor when dealing with other Mission Partners (i.e., Range, Space Vehicle Contractor, Encapsulation Facility Contractor, etc.)? Comment:_____ _____ _____			
P11. How effectively did the contractor manage integration of the primary payload and secondary payload (e.g. EELV Secondary Payload Adapter [ESPA] or similar rideshare capability) into an integrated payload stack? Comment:_____ _____ _____			
P12. How successfully did the contractor accommodate changes to the secondary payload configuration (e.g. ESPA and APL configuration) during the integration cycle? Comment:_____ _____ _____			
P13. How effectively/successfully did the contractor manage and execute integration of classified payloads? Comment:_____ _____ _____			

	A	U	N/A
P14. How complete and adequate was the contractor's support of payload processing for multiple payloads? Comment:_____ _____ _____			
Schedule			
S1. How accurately did the contractor forecast the schedule? Comment:_____ _____ _____			
S2. How well did the contractor perform against the contract and/or delivery schedule? Comment:_____ _____ _____			
S3. How successfully did the contractor alert the Government of unforeseen schedule changes (accelerations and/or delays) before they occurred? Comment:_____ _____ _____			
S4. How successfully did the contractor respond to emergency and/or surge situations? Comment:_____ _____ _____			
S5. How effectively did the contractor manage scheduling and communicate issues that may affect other stakeholders and/or project completion? Comment:_____ _____ _____			

2. Please provide any specific strengths that provided value to the government in the contractor's execution in their responsibilities.

3. Please discuss each and every response for which you indicated as Unacceptable (U) in response to the questions above (use additional sheets, if necessary).

4. **Government Contracts Only**: Was this contract partially or completely terminated for default or convenience or are there any pending terminations?

Yes___ Default___ Convenience___ Pending Terminations___ No ___

If yes, please explain (e.g., inability to meet cost, performance, or delivery schedules).

_____
_____
_____
_____

SECTION 5: NARRATIVE SUMMARY

Would you have any reservations about soliciting this contractor in the future or having them perform one of your critical and demanding programs?

_____
_____
_____
_____
_____
_____
_____

Please provide any additional comments concerning this contractor's performance, as desired.

_____
_____
_____
_____
_____
_____
_____

_____ _____

Evaluator's Signature Date

Please return this completed questionnaire to:

Los Angeles Air Force Base
Attn: SMC/LE, Ms. June Dom
483 N. Aviation Blvd
El Segundo, CA 90245
E-Mail to: dzung.dom@us.af.mil