

Use of Excess ICBM Motors for Commerical Space Launches

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A -- Research & Development

NAICS Code:

336 -- Transportation Equipment Manufacturing/336415 -- Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing

Synopsis:

Added: Aug 04, 2016 4:26 pm

The Air Force (AF) Space and Missile Systems Center (SMC), Launch Systems Enterprise Directorate (LE), Rocket Systems Launch Program (RSLP), Kirtland AFB, Albuquerque, NM maintains the ICBM motors for Minuteman (MM) Stage 1 (M55A1), Stage 2 (SR19-AJ-1), Stage 3 (M57A1 and SR73), and Peacekeeper (PK) Stage 1 (SR118-TC-1), Stage 2 (SR119-AJ-1), and Stage 3 (SR120-HP-1). RSLP serves as the DoD single point of contact for launch of deactivated MM/PK and other ballistic missiles.

The official United States Government position remains to continue to comply with statute and national policy, until such time that both are modified, expected to occur no earlier than FY18. Currently, Federal Law requires the Air Force to maintain control of ballistic missile motors at all times. Therefore, the Air Force delivers refurbished ballistic missile motors only to support specific U.S. Military or U.S. Government launch missions. However, if Federal legislative changes are enacted, excess ballistic missile motors could be made available to U.S. commercial launch providers for fair market value for commercial launch missions from US-approved launch sites. No more than 15 excess ICBM motors would be are expected to be available per year for commercial launches. Commercial use of excess ICBM motors for the launch of international payloads could be allowed, where consistent with international treaties and U.S. Government Policy and Control Regimes. The intent of this RFI is to obtain information from the Spacecraft, Launch Vehicle, and Spaceport Communities regarding the effect of this proposed legislative change in the management of excess ballistic missile motors.

Questions:

In response to the House of Representatives passage of the National Defense Authorization Act for Fiscal Year

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2017, RSLP is gathering data from launch providers, satellite manufacturers and spaceports on the implications of allowing commercial use of excess Intercontinental Ballistic Missiles (ICBMs) motors for U.S. launch of payloads. The Government is seeking industry replies to the questions below (in priority order) and appreciates industry written input.

- 1. What is your assessment of any impact that expanded transfer of these ballistic missile motor assets to commercial launch providers could have on the ability of existing or planned U.S. commercial launch capabilities to meet national security requirements?
- 2. What is your assessment of the impact of minimum payload mass and payload aggregation restrictions to the fair market value of such assets and its effect on the U.S. commercial space transportation industrial base to include space vehicle providers?
- 3. What is your assessment of the methodologies for determining fair market value of excess ICBM motors and what do you believe is a fair price for each motor (include analysis and rationale)? (Please refer to the FASAB Handbook of Federal Accounting Standards and Other Pronouncements, as Amended as of June 30, 2015)
- a. Provide your assessment in the near term (by year, for the next five years) and long term (beyond 5 years).
- b. Provide your recommendation on the method of exchange of value between the Government and U.S. industry, from a transactional perspective.
- c. The Government anticipates that these ballistic missile motor assets would be transferred to the Commercial Launch Provider "as is," without any guarantee or warranty (express or implied) of fitness for any particular use, and provided that the Commercial Launch Provider expressly agrees to indemnify and hold harmless the Government and its agents from any liability as a result of such transfer and use of the ballistic missile motors. What is your assessment of these conditions of transfer?
- 4. What is your assessment of the potential impacts on private sector investment in the U.S. commercial space transportation industry?
- 5. What alternative uses or opportunities or options would you propose to utilize or not utilize the excess excess ICBM motors?
- 6. Are there alternative business models or arrangements that the government should consider if any, or would the status quo suffice?
- 7. How would commercial availability to domestic providers beginning in 2018 discourage / encourage future investment and innovation in your launch system and/or the small launch industry to include space vehicle providers?
- 8. Is there a limit to the number of excess ICBM motors per year that would hinder/help your current or future investment in the small launch industry to include space vehicle providers?

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- a. How would releasing 0, 3, 6, 9, 12, or 15 motors per year for commercial use affect your current or future business case?
- b. Address the business case pros and cons with the government being responsible for motor processing and the commercial company being responsible for motor processing.
- 9. Would commercialization of excess ICBM motors provide an incentive or disincentive for you to pursue designs or utilize other motors or related propulsion technologies?
- 10. What type of launch system(s) is your company producing/using (air, land, sea based)?
- a. What type of propulsion system (Liquid Rocket Engine, Solid Rocket Motor, other)?
- b. When is your expected date of initial operational capability to place a satellite on orbit?
- c. What is your expected weight/mass capability to Low Earth Orbit/Sun Sync Orbit?
- 11. What is your assessment of the impact that expanded transfer of these assets has on state-owned and operated and other U.S. Spaceports?
- 12. What is your assessment of the potential economic impact that expanded transfer of these assets has could have on providing commercial launch services to international users?
- 13. What private sector investments have been/are being made in small launch provider vehicles/systems?
- a. Are any contingencies assigned to these investments? (i.e. time limitations, demonstrated performance, price point)
- b. What additional investment dollars are required to achieve an initial operational capability?
- c. Do you believe that release of these motors could negatively impact your ability to continue to attract further investment?
- 14. What is the anticipated price per launch to LEO for your launch system?
- a. How many launches per year are required to meet this price?
- b. What percentage of these launches is expected to be domestic vs foreign payloads?
- c. Do you currently have contracts for launching foreign owned payloads? If so, please describe (#, mass,

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timeframe).

15. Please provide any other comments, concerns, or suggestions that the government should consider regarding proposed commercialization of excess ICBM motors.

Submittal Information

Interested parties may email their written responses to contracting points of contact Mr. Kerem Ar at kerem.ar@us.af.mil and Ms. Cassandra Way at cassandra.way@us.af.mil. Industry responses must be received no later than 4:00 PM, Local Time (Mountain), Albuquerque, N.M., 15 days after posting to FBO. Any response after this time will be accepted, but may not assist in the timelines required to complete market research. All inquiries (technical, contractual, administrative), questions, or clarifications of any kind must be submitted via email to the Contracting POCs. No telephone inquiries will be accepted.

All responses should be unclassified and for general access by the Government. The Government will be using FFRDC and other contractor support staff to review and consolidate any responses received. The support staff contractors are made up of the following companies: The Aerospace Corporation, Aero Thermo Technology, MCR Federal, TASC Inc. (an Engility Company), Falcon Research, and Integrity Applications Incorporated. Any proprietary information submitted must be clearly marked. In order to appropriately protect the data, the Government recommends respondents identify proprietary information in a separate attachment. The Government will NOT be responsible for any proprietary information not clearly marked. Each of these contractor companies has associate contractor agreement responsibility. Therefore, responders are encouraged to work directly with these contractors to obtain any additional safeguard agreements that responders may require.

Responses from small and small disadvantaged businesses are encouraged. Firms responding should indicate if they are a small business, an 8(a) firm, etc. For this RFI, the definitions in FAR 19.001 and small business size standard (1250 employees) for NAICS 336415 or closely related NAICS apply.

Please include a point of contact, telephone, fax, e-mail address, CAGE, and DUNS number. The Government intends to use these statements for reference in answering Congressional inquiries into Commercial Use of Government Surplus ICBMs.

This announcement is for information and planning purposes only. It does not constitute a Request for Proposal (RFP) and is not to be construed as a commitment by the Government to issue a solicitation, award a contract, nor is it an agreement to transfer Government property. The Government will not pay any costs associated with the submittal of information solicited herein.

Contracting Office Address:

483 North Aviation Blvd El Segundo, California 90245-2808

Place of Performance:

TBD

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United States

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Opportunity History

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