



Ultra -Low Cost Access to Space (ULCATS)

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Agency: Department of the Air Force

Office: Air Education and Training Command

Location: Maxwell AFB Contracting Squadron

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Special Notice

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A -- Research & Development

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336 -- Transportation Equipment Manufacturing/336414 -- Guided Missile and Space Vehicle Manufacturing

Synopsis:

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ULTRA-LOW COST ACCESS TO SPACE (ULCATS)

REQUEST FOR INFORMATION (RFI)

(This is a request for information only. No acquisition is anticipated at this time.)

Description

A U.S. Government investment of financial and technical resources to stimulate efforts within the private sector could aid in the accelerated development and demonstration of new space transportation capabilities - Ultra-Low Cost Access To Space (ULCATS) systems - that are 1-2 orders of magnitude lower cost than today's existing launch systems, and at least one order of magnitude more reliable than today's systems. A U.S. government partnership with industry might increase the amount of innovation and accelerate the development of ULCATS systems by commercial industry. These systems might create new methods for delivering payloads to low-Earth orbit (LEO) with dual use benefits to both commercial industry and U.S. government, including national security. As the U.S. Air Force stimulates private industry investments to provide assured access to space, we also are interested in the ideas for how to stimulate faster development of the next generation of commercial space launch systems.

U.S. industry is already investing in, and developing, partially-reusable launch systems. Air University has been tasked with A) Evaluating even lower cost space access systems that are being conceived and/or in very early phases of development by U.S. industry, B) Assessing alternatives to stimulating their development in partnership with U.S. industry, C) Evaluating the potential military utility of those commercially-developed, -owned, and -operated systems, and D) Considering how the existence of ULCATS systems might influence and alter military theory and doctrine in the future.

The purpose of this RFI is to collect information from U.S. industry to help Air University assess future concepts being developed by industry, and how they might be integrated into the U.S. Air Force long term plans as specified in "Air Force Future Operating Concept (AFFOC) - A View of the Air Force in 2035" and "America's Air Force: A Call to the Future".

Air University is specifically requesting the following information:

- 1) Company or organization name, point of contact name, phone number, e-mail address, and nature of interest in ULCATS.
- 2) Sufficient information to determine if your company qualifies as a United States commercial provider of space transportation services as defined in Public Law 105- 303, Commercial Space Act of 1998.
- 3) What systems concepts and plans is your company is developing to achieve at least an order of magnitude reduction in cost, and at least an order of magnitude increase in reliability, over best in class launch systems that are operating today. What is the status of this development project, including development of critical path systems, and when do you anticipate that your system will be achieve a flight demonstration to orbit, and when will it become fully operational? What is the overall concept of operations? What is the technology readiness of your system, and how much have you invested in the development of the system to date? How much more capital is needed to complete development through the first orbital flight test? Do you have the capital in hand to complete development, or do you need to raise the remaining capital from other sources?

- 4) What key commercial markets and commercial businesses use cases is your ULCATS system being designed to serve? What civil space markets will your system effectively address? What national security markets do you anticipate your ULCATS system being able to serve, and what would be the benefits to U.S. national security?
- 5) What are the public benefits of ULCATS systems that the USG should consider when evaluating the merit of a potential USG investment in developing ULCATS systems?
- 6) How scalable is your baseline ULCATS system, and what are the limits on scalability? How do you anticipate your system will evolve over time?
- 7) The Air Force Future Operating Concept (AFFOC) - A View of the Air Force in 2035 discusses the concept of a Civil Space Reserve Fleet (CSRV) modeled after the aircraft civil reserve fleet. From your perspective, what are the pros, cons, and limitations of the CSRV concept?
- 8) The U.S Department of Defense (DOD) has previously entered into "other transactions authority" (OTA) agreements with U.S. commercial partners for the development and demonstration of innovative systems, such as the Evolved Expendable Launch Vehicles that resulted in the successful development of the Delta IV and Atlas V launch vehicles. Separately, NASA has entered into funded "Space Act Agreements" using NASA's OTA for its Commercial Orbital Transportation Services program to stimulate cargo delivery capabilities to the International Space Station using pay for performance milestones that resulted in the successful development of the Falcon 9 and Antares launch vehicles, and the Dragon and Cygnus spacecraft. From your perspective, what were the pros, cons, and limitations for each of these approaches for the initial development and demonstration phase? What changes or improvements do you suggest to this strategy, or its related terms and conditions, for development of ULCATS systems that are owned and operated by U.S. commercial providers?
- 9) What is the approximate dollar magnitude of the minimum U.S. Government investment necessary to ensure the success of your company's ULCATS development and demonstration effort? What is the approximate government fiscal year phasing of this investment from award to completion of an orbital flight demonstration? What percentage of the total development cost would the USG contribution represent?
- 10) What significant USG furnished resources (equipment, facilities, material, services) would your company likely request to complete the ULCATS development and demonstration?
- 11) If the USG created a program to partner with your company to develop an ULCATS system, how much might this accelerate the development of your planned ULCATS system(s), and/or reduce the risk of delays in development?
- 12) What advanced technologies does your company recommend the USG invest in now, to increase its technology readiness level, in order to accelerate and stimulate the development of future ULCATS systems?

- 13) What non-financial and non-technical barriers to ULCATS - including policy, legal and regulatory - should the USG be aware of that your company would like to see addressed? What would your company recommend as a solution to this barrier?
- 14) What other recommendations does your organization have for the USG to accelerate the development of privately-owned and -operated ULCATS systems?
- 15) Questions must be submitted prior to 1300 CSDT. on 17 May 2016 to allow sufficient time for the government to respond. Questions should be sent via email to Ms. Gail Vendel, gail.vendel@us.af.mil, Contracting Officer and A1C Bobby Ballow, bobby.ballow@us.af.mil, Contract Specialist.
- 16) Responses should not exceed twenty (20) pages in length and are due by 27 May 2016 @ 1300 CSDT. Send responses via email to Gail Vendel, gail.vendel@us.af.mil, Contracting Officer and A1C Bobby Ballow, bobby.ballow@us.af.mil, Contract Specialist.

This is a request for information only. It is not a procurement commitment to procure services, or request for proposals. Responses to this notice are not offers and cannot be accepted by Air University, or the Department of Defense, to form a binding agreement or contract. The U.S. Department of Defense is under no obligation to issue a solicitation or to enter into any agreement or award any contract on the basis of this RFI. Air University will not pay for any information solicited. No evaluation letters and/or results will be issued to the respondents.

No solicitation exists; therefore do not request a copy of the solicitation.

Although it is not Air University's intent to publicly disclose proprietary information obtained during this RFI, Air University reserves the right to share the information received in response to this RFI within the U.S. Government. Any information submitted in response to this RFI that is marked as "Proprietary" or "Confidential Commercial or Financial Information" will be treated as labeled. Additionally, any International Traffic in Arms Regulations (ITAR)-restricted information should be appropriately labeled in responses to the RFI.

ULCATS Q&A's

Type: Other (Draft RFPs/RFIs, Responses to Questions, etc..)

Posted Date: April 8, 2016

[ULCATS_RFI_QAs.docx](#) (15.07 Kb)

Description: ULCATS Q&A's

Revised Responses to Questions

Type: Other (Draft RFPs/RFIs, Responses to Questions, etc..)

Posted Date: April 12, 2016

[ULTRANS Revised Q&As.docx](#) (13.51 Kb)

Description: Revised Responses to ULCATS RFI Q&A's

Contracting Office Address:

50 LeMay Plaza South

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Place of Performance:

50 S. Lemay Plaza

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United States

Primary Point of Contact.:

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ALL FILES

[ULCATS Q&A's](#) 

Apr 08, 2016

[ULCATS_RFI_QAs.docx](#)

[Revised Responses to Questions](#) 

Apr 12, 2016

[ULTRANS_Revised_Q&](#)

Opportunity History

- Original Synopsis
Special Notice
Mar 25, 2016
4:18 pm
- Changed
Mar 29, 2016
8:34 am
- Changed

Apr 08, 2016

5:10 pm

■ Changed

Apr 12, 2016

5:06 pm