Acquisition Notice Posting

Headquarters Acquisition Division

ANNOUNCEMENT OF CUBESAT LAUNCH INITIATIVE

General Information

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Office Address

NASA/Goddard Space Flight Center, NASA Headquarters Acquisition Branch, Code 210.H, Greenbelt, MD 20771

Description

1.0 INTRODUCTION AND BACKGROUND

The National Aeronautics and Space Administration (NASA) Human Exploration and Operations Mission Directorate (HEOMD) anticipates making launch opportunities for a limited number of CubeSats available on launches, as well as deployments from the International Space Station, currently planned for 2016-2019. The CubeSat Launch Initiative provides launch opportunities for CubeSat payloads as auxiliary payloads on planned missions.

More information about the CubeSat Launch Initiative, including previously selected Respondents, is available at: http://go.nasa.gov/CubeSat_initiative.

A CubeSat is a type of space research nanosatellite. The base CubeSat dimension is 10x10x11 centimeters (one "Cube" or "1U"). CubeSats supported by this Launch Initiative include volumes of 1U, 2U, 3U, and 6U. CubeSats of 1U, 2U and 3U size typically have a mass of 1.33 kilograms per 1U Cube. A 6U CubeSat typically has a mass range from 12 to 14 kg. The final mass is dependent upon the selected dispenser.

NASA anticipates using its authority to enter into one or more collaborative Agreements with selected Respondents ("Collaborators") to support the CubeSat Launch Initiative. During the project, NASA will provide integration and other services as necessary to complete the launch activity.

The CubeSat Launch Initiative is open to NASA centers, U.S. not-for-profit organizations, and accredited U.S. educational organizations. Participation in the CubeSat Launch Initiative will be contingent upon selection by NASA and negotiation of an appropriate Agreement between NASA and the Collaborator.

Proposed CubeSat investigations must address an aspect of science, technology development, education, or operations encompassed by NASA's strategic goals and objectives as identified in the NASA Strategic Plan.

The NASA 2014 Strategic Plan is available at:
http://www.nasa.gov/sites/default/files/files/2014_NASA_Strategic_Plan.pdf

NASA will not transfer any funds to selected Collaborators under Agreements negotiated in response to this Announcement. Collaborators will be responsible for securing funding to support the development of their CubeSat payload and for all other costs incurred by the Collaborator to participate in the CubeSat Launch Initiative. Moreover, a Collaborator may be required to reimburse NASA for the direct costs of the integration and launch activities in the event the Collaborator terminates the Agreement.

2.0 GENERAL INFORMATION

Agency Name: NASA (National Aeronautics and Space Administration)

Opportunity Title: Announcement of CubeSat Launch Initiative

Response Date: Electronic Proposals may be received until the close date on November 24, 2015 at 4:30 P.M. EST via email to jason.crusan@nasa.gov.

Points of Contact:
If you have any questions concerning this opportunity please contact:

Anne Sweet
Telephone: 202-358-3784
Email: anne.sweet-1@nasa.gov

Jason Crusan
202-358-0635
jason.crusan@nasa.gov

Instrument Type(s): NASA may use Agreements negotiated under this Announcement in the form of Space Act Agreements (SAAs) or Cooperative Research and Development Agreements (CRADAs).

Evaluation Panel: Government personnel from NASA will participate in the evaluation of Proposals. All contractor personnel participating in the evaluation will be bound by conflict of interest provisions and appropriate non-disclosure requirements to protect proprietary information.

Selection Notification: Selection is anticipated by February 19, 2016.

Submission Instructions: All Proposals submitted in response to this Announcement must be emailed to jason.crusan@nasa.gov. Paper submissions will not be reviewed. Any material submitted in response to this Announcement will not be returned. Proposals may be submitted at any time before the response date. Proposals received by the Government after the response date and time will not be considered. If a Respondent is concerned about information security during transmission NASA has the ability to accept secure transmission. Contact the Point of Contact (Jason Crusan) for secure transmission requirements. Files must be submitted in a single bookmarked and searchable PDF of less than 10 Mb.

NASA will not issue paper copies of this Announcement. This Announcement does not constitute an obligation for NASA to begin negotiations or enter into agreements with any Respondents to carry out this activity. NASA reserves the right to select for negotiations all, some, or none of the Proposals submitted in response to this Announcement. NASA provides no funding for reimbursement of Proposal development costs.

It is NASA's policy to safeguard all Proposals as confidential and privileged information, as provided by law. NASA will not, without permission of the Respondent, use the Proposal contents for other than evaluation purposes.

It is not NASA's intent to publicly disclose proprietary information obtained during this solicitation. To the full extent that it is protected pursuant to the Freedom of Information Act and other laws and regulations, information identified by a Respondent as "Proprietary or Confidential" will be kept confidential.

NASA reserves the right to amend or withdraw this Announcement at any time.

3.0 ELIGIBILITY INFORMATION

3.1 Eligible Applicants

U.S. organizations meeting the following requirements are eligible to submit Proposals in response to this Announcement.

- The Respondent must be from a NASA center, a U.S. not-for-profit organization, or U.S. accredited educational organization.

- The Respondent is responsible for securing funding to support the development of the CubeSat payload prior to submitting the Proposal and for all other costs incurred by the Respondent to support its participation in the project. For a NASA CubeSat, a Respondent must have secured funding or identified a NASA solicitation for which a submittal is planned prior to January 1, 2016.

- The Respondent may be required to provide NASA reimbursement of direct costs of the integration and launch activities in the event the collaborator fails to meet its obligations under the collaboration agreement, or terminates the agreement.

3.2 Eligible Payloads

Benefit to NASA. Each CubeSat investigation must demonstrate a benefit to NASA by addressing goals and objectives of the NASA Strategic Plan. More specifically, each CubeSat investigation must address an aspect of science, technology development, education, or operations encompassed by NASA's strategic goals and outcomes as identified in the NASA Strategic Plan.

Merit Review. Prior to submission of the Proposal, each CubeSat investigation must have passed an intrinsic merit review. In the review, goals and objectives of the proposed investigation must be assessed to determine the scientific, educational or technical quality of the investigation. The review will assess the overall alignment of the proposed investigation in addressing one or more of the science, technology, education, or operations goals or objectives identified in the NASA Strategic Plan. The merit review panel should be comprised of individuals not on the project team.

Feasibility Review. Prior to submission of the Proposal, each CubeSat investigation must have passed a feasibility review in which the technical implementation, including feasibility,

resiliency, risk and the probability of success, was assessed. The feasibility review panel should be comprised of individuals not on the project team.

Launch Services Requirements. To enhance compatibility with a Primary payload, each CubeSat payload should fully comply with the Launch Services requirements as described in "Launch Services Program, Program Level Dispenser and CubeSat Requirements Document (LSP-Req-317.01)." If a Respondent is unsure of compliance or would like to pursue a waiver to a requirement, the proposal should identify the requirement needing clarification or identify the specific requirement(s) you seek to have waived, and clearly state the rationale for waiver in the proposal. Detailed Launch Services requirements are available at: http://www.nasa.gov/pdf/627972main_LSP-REQ-317_01A.pdf.

3.3 Project Focus Area

Proposals must identify a primary and, if appropriate, secondary focus for their CubeSat effort, i.e., whether the Investigation addresses a scientific research question, a technology development/demonstration objective, or an education objective. Additional post-flight NASA-required Collaborator deliverables will depend on the CubeSat project focus and will be specified in the negotiated Agreement.

4.0 PROPOSAL EVALUATION AND SELECTION

4.1 Evaluation and Selection Process

All Proposals will be screened to determine their compliance with the Eligibility (Section 3.0) and Proposal Instructions (Section 5.0) of this Announcement. Proposals that do not comply may be declared noncompliant and rejected without further review. A submission compliance checklist is provided in Section 5.0. This checklist provides Respondents a list of the items that NASA will check for compliance before releasing a Proposal for evaluation.

Proposals deemed compliant with this Announcement will be assessed by the Selection Recommendation Committee against the Evaluation Criteria outlined in Section 4.2. Respondents should be aware that NASA may request clarification of a specific point or points in a Proposal during the evaluation and selection process. Such a request and the Respondent's response shall be in writing.

The Selection Recommendation Committee members will independently assess the Proposals according to Evaluation Criteria outlined in Section 4.2. Afterwards, the Selection Recommendation Committee will develop a final prioritization based on their assessments of the Proposals.

4.2 Evaluation Criteria

4.2.1 Overview

The Evaluation Criteria below will be used to assess and prioritize the Proposals as described in Section 4.1. The Evaluation Criteria (which are defined more fully in the sections below) are as follows:

- Relevance to one or more NASA Strategic Goals or Objectives;
- Outcome of Scientific, Educational, or Technical Merit Review(s); and
- Outcome of Feasibility Review.

Standard evaluation factors for each of these criteria are described below. The Proposal prioritizations discussed in Section 4.1 will be based on these criteria. Relevance to one or more NASA Strategic Goals or Objectives is weighted 40%, Outcome of Scientific, Educational, or Technical review(s) is weighted 30%, and Outcome of Feasibility Review is weighted 30%.

4.2.2 Relevance to one or more NASA Strategic Goals or Objectives

Each CubeSat investigation must demonstrate a benefit to NASA by addressing goals and objectives of the NASA Strategic Plan.

The following factors will be assessed for the benefit to NASA. Proposals must include sufficient information and supporting details to allow assessment of these factors.

- Does the Proposal demonstrate that the CubeSat investigation provides benefits to NASA by addressing one or more of the goals and objectives of the NASA Strategic Plan?
- Are these the benefits that were reviewed in the merit review?
- Why is an orbital flight opportunity necessary or advantageous for providing these benefits to NASA?

4.2.3 Outcome of Scientific, Educational, or Technical Merit Review(s)

Each CubeSat-supported investigation must have passed an intrinsic merit review in which the goals and objectives of the proposed investigation were assessed to determine the scientific, educational or technical quality of the investigation and the overall alignment of the proposed investigation to addressing one or more of the science, technology, education, or operations goals or objectives identified in the NASA Strategic Plan.

Reviewers will assess the following factors. Proposals must include sufficient information and supporting details to allow reviewers to assess these factors. The merit review panel should be comprised of individuals external to the project team.

- What was the merit review process?
- Was the merit review competitive or non-competitive?
- What were the qualifications of the merit review committee members (if possible identify by name, title, and expertise)?
- What factors did the merit review use to assess merit?
- What was the outcome of the merit review?
- How did the Respondent respond to and/or address the findings of the merit review?

NASA is not specifying how the merit review should be conducted. NASA is, however, requiring that a determination of the merit of the CubeSat investigation be conducted **prior** to the Proposal being submitted.

Any supporting documentation from the merit review that is useful in supporting this assessment may be included in the Proposal as an Appendix.

4.2.4 Outcome of Feasibility Review

Each CubeSat investigation must have passed a feasibility review in which the technical implementation, including feasibility, resiliency, and the probability of success, was assessed.

Reviewers will assess the following factors. Proposals must include sufficient information and supporting details to allow reviewers to assess these factors. The feasibility review panel should be comprised of individuals external to the project team.

- What was the feasibility review process?
- What were the qualifications of the feasibility review committee members (if possible identify by name, title, and expertise)?
- What factors did the feasibility review use to assess feasibility?
- How were the management team roles, experience, expertise, and the

organizational structure of the team assessed?

- How was the technical development risk associated with the overall CubeSat mission assessed?

- If the CubeSat investigation requires critical technology development for flight readiness, how were the areas assessed, and how were the plans for completing technology development assessed?

- Concerning the development of the CubeSat for flight, how was the probability of success assessed?

- What was the outcome of the feasibility review?

- How did Respondent respond to and/or address the findings of the feasibility review?

- Is there sufficient financial support for the development of the CubeSat payload and for all other costs incurred by Respondent to support its participation in the project?

NASA is not specifying how the feasibility review should be conducted. NASA is, however, requiring that a determination of the feasibility of the CubeSat investigation be conducted **prior** to the Proposal being submitted.

Any supporting documentation from the feasibility review that is useful in supporting the assessment, including project schedules, risk management plans, and/or project development plans, may be included in the Proposal as an Appendix.

4.3 Selection Factors

As described in Section 4.1, the results of the Proposal evaluations based on the criteria above and the subsequent Selection Recommendation Committee deliberations will be considered in the selection process.

The Selection Recommendation Committee may take into account a variety of programmatic factors in deciding whether or not to select Proposals, including, but not limited to, available launches, Launch Service requirements waiver requests, and maintaining a programmatic and scientific balance across the sponsoring organizations. In support of the White House Maker Initiative, special consideration may be given to proposals that geographically broaden program participation to states that have not previously been selected by the CubeSat Launch Initiative. Those states include: Arkansas, Delaware, District of Columbia, Georgia, Idaho, Iowa, Kansas, Maine, Minnesota, Mississippi, Nebraska, Nevada, New Hampshire, New Jersey, North Carolina, Oklahoma, Oregon, South Carolina, South Dakota, Washington, Wyoming and Puerto Rico. Previous CubeSat Launch Initiative selectees are encouraged to

partner with and/or mentor organizations from these states.

The Selection Authority shall be the Associate Administrator for Human Exploration and Operations.

4.4 Selection Notification

The Selection Recommendation Committee will produce a prioritized list of proposed CubeSat investigations. NASA will negotiate agreements with respondents recommended for selection as manifest opportunities are available. Selection recommendation does not guarantee the availability of a launch opportunity.

Selected Proposals from any prior announcements that resulted in a prioritization for a launch opportunity will generally take precedence over the results of this Announcement. Manifest order will generally be in priority order unless critical needs dictate an earlier launch or available flight opportunities enable an earlier launch.

NASA will notify all Respondents of the results of the evaluation and prioritization process. After the completion of the evaluation and prioritization process, NASA will begin negotiations with the selected Respondent in priority order from the Selection Recommendation Committee. The purpose of the negotiations is to define the terms and conditions of the Agreement supporting Collaborators' participation in the project and to align the recommended Proposals with the anticipated launch manifest. The Selection Authority will make the final selection of those approved for this opportunity after the completion of negotiations, depending on the outcome of the negotiations.

5.0 PROPOSAL INSTRUCTIONS

Proposals must comply with the following requirements.

Page Limitations

Proposal Section	**Total Pages**
Proposal Cover Page	1
Proposal Title Page	1
Points of Contact	1
Proposal Abstract	750 words
Proposal Detail	10
Appendix	
Resumes	No Page Limit
Compliance Documents	No Page Limit

Additional Documentation No Page Limit

Pages in excess of the page limitations for each section will not be evaluated. A page is defined as one (1) sheet of 8½ x 11 inches using a minimum of 12-point font size for text and 8-point font size for graphs.

Files must be submitted in a single bookmarked and searchable PDF of less than 10 Mb.

There is no limit on appendix documentation. The intent is to allow Proposals to include current documentation in its current format without having to alter or create any documents.

The Proposal must include the following sections, in this order:

Proposal Cover Page: Title of Announcement and Proposal Contact Information. An optional graphic image may be included.

Proposal Title Page: Title and Notice of Restriction on Use and Disclosure of Proposal Information, if any; CubeSat Mission Parameters and CubeSat Project Details Tables (see below for Table format)

Points of Contact: List contact information for all Points of Contact (POCs), including a Technical Point of Contact. For each POC, provide:

a. Name
b. Title
c. Address
d. Phone
e. Fax
f. Email

Proposal Abstract: Executive summary describing the prominent and distinguishing features of the proposed CubeSat.

Proposal Detail: The Proposal shall contain sufficient information to enable reviewers to determine whether the Proposal complies with the Eligibility Information (Section 3.0) and to assess the Proposal based on the Evaluation Criteria (Section 4.2). The proposal shall also include:

- CubeSat primary and, if appropriate, secondary focus area: scientific research question, technology development/demonstration, or education.
- CubeSat Development: schedule for remaining CubeSat development that supports a launch in 2016-2019.
- Summary of Requirement compliance or required potential waivers.

- A CubeSat Mission Parameters Table using the following format:

CubeSat Mission Parameters								
Mission Name	Mass	Cube Size	Desired Orbit		Acceptable Orbit Range	400 km @ 51.6 degree incl. Acceptable – Yes or No	Readiness Date	Desired Mission Life
			Altitude					
			Inclination					

- A CubeSat Project Details Table using the following format:

CubeSat Project Details						
Focus Area(s) (e.g. science, technology, education)	Student Involvement Yes or No	NASA Funding		Sponsoring Organization(s)	Collaborating Organization(s)	
		Yes or No	Organization		List	International – Yes or No

- Funding Commitment: letter(s) demonstrating sufficient financial support for remaining CubeSat development. For a NASA CubeSat planning to submit a proposal under a NASA solicitation, provide a statement identifying the solicitation and its required response date.

- Note for Proposals identified with an Education Focus Area: If the proposed CubeSat includes outreach components, the proposal must include a description of the education plan.

Proposal Appendix:

- **Resumes**
  - Resumes shall be included for key personnel. In general, resumes should be limited to no more than 1-2 pages each.

- **Compliance Documents**
  - Include any documents necessary to supplement the Proposal text and satisfy the requirements of the compliance checklist (see below).

- **Additional documentation**
  - Include any documentation in the appendix that validates or supports the Proposal, such as plans for the remaining CubeSat development, and technical risks and their mitigation plans.

Compliance checklist and required documents

- Respondent is a NASA center, a U.S. not-for-profit organization, or an accredited U.S. educational organization
- Proposal includes demonstration of the benefits to NASA based upon the 2014 NASA Strategic Plan
- Proposal identifies a project focus area
- Proposal includes a description of the merit review process and outcome including review committee membership
- Proposal includes a description of the feasibility review process and outcome including review committee membership
- Proposal fully complies with the Launch Services requirements and identifies any potential waivers
- Proposal includes a completed Mission Parameters Table
- Proposal includes a completed Project Details Table
- Proposal includes a schedule for remaining CubeSat development that supports a launch in 2016-2019.
- Proposal includes funding commitment information.

Points of Contact

Name: Ms. Anne E Sweet
Title: Launch Services Program Executive
Phone: 202-358-3784
Fax: 202-358-2818
E-mail: anne.sweet-1@nasa.gov

Name: Mr. Jason C Crusan
Title: Director, Advanced Exploration Systems
Phone: 202-358-0635
Fax: 202-358-3530
E-mail: jason.c.crusan@nasa.gov