Lagrange-V Solar Observatory International Cooperation Opportunity Announcement

Schedule

LOI Due	June 30, 2026
Initial Selection	July-August 2026
Proposal Due	September 30, 2026
Approval	December 2026

China National Space Administration (CNSA)

Lagrange-V Solar Observatory International Cooperation Opportunity Announcement

I. Mission Overview

1.1 Background

The Lagrange-V Solar Observatory (LAVSO) mission is expected to be the first artificial spacecraft in the world stationed at the Sun-Earth L5 Lagrange point. It will serve as a high-resolution space observation platform integrating ultra-high precision and ultra-high stability, with a planned launch in early 2029. Approximately 140 days after launch, the spacecraft–Sun–Earth elongation reaches 10°, and solar stereo exploration is carried out. Approximately 790 days after launch, it will enter its target orbit around the L5 point.

1.2 Scientific Objectives and Proposed Payloads

The scientific objectives of the LAVSO mission are: to achieve, for the first time, stable solar scientific exploration from the Sun-Earth L5 point; to investigate the characteristics and evolution of magnetic fields in solar active regions; to reveal the three-dimensional structure and physical mechanisms of solar eruptions; to clarify the propagation patterns of solar eruptions and their impacts on Earth; and to provide theoretical foundations and key data for advancing precise space weather warning and forecasting technologies.

The LAVSO mission is equipped with five scientific payloads, including: a Spectro-Magnetograph Telescope, a Coronagraph and Heliospheric Imager Package, an Extreme Ultraviolet Imager, a High-Energy Solar Telescope, and an In-Situ Measurement Package.

II. International Collaboration Opportunities

This cooperation opportunity is open to the international community. Participating payloads will be accommodated on the spacecraft platform in a piggyback configuration to conduct space science exploration and research.

Piggyback payloads shall be instruments or equipment capable of independent operation. They may be developed independently by a single party or collaboratively by multiple parties. Foreign research institutions are encouraged to participate in the selection through joint development with Chinese payload developers.

2.1 Technical Requirements

a. The total mass of all cooperative piggyback payloads shall not exceed 15 kg.

b. The total power consumption of all cooperative piggyback payloads shall not exceed 30 W (bus voltage: 25 V – 32 V).

c. Maximum envelope dimensions for equipment: 200 mm × 200 mm × 120 mm.

d. Operating temperature range for internal (cabin) equipment: -50°C to +70°C. External equipment must meet the environmental requirements for operations at the Sun-Earth L5 point.

e. Communication interface: RS422.

f. Requirements for ground testing of piggyback payloads and other relevant information will be further defined during the technical coordination process.

2.2 Collaboration Requirements

a. Proposals for piggyback payloads shall, while meeting the technical requirement constraints, specify the detailed technical demands on the spacecraft platform, including but not limited to mounting configuration, mass, volume, power, and data transmission schemes.
b. The cooperation shall proceed under the following principles: launch accommodation provided free of charge, data sharing, and payload development costs borne by the proposing party.

2.3 Priority Considerations

Priority consideration will be given to cooperation projects that:

a. Extend the scientific objectives of the LAVSO mission or provide capabilities complementary to the existing scientific payloads.
b. Exhibit significant innovation.

2.4 Delivery Schedule for Cooperative Payloads

Flight model hardware for cooperative projects shall be delivered by April 2028.

3.1 Submission of Expressions of Interest

Upon the release of this Announcement of Opportunity, institutions interested in cooperation shall submit a Letter of Intent to the China National Space Administration. The submission deadline is June 30, 2026. Letters of Intent must be submitted as a PDF file in either Chinese or

English.

The Letter of Intent shall describe the necessity and advanced nature of the proposed cooperative project, performance specifications and technical approach, development plan, and team composition (refer to the Appendix for the outline of the Letter of Intent).

3.2 Preliminary Selection, Technical Exchanges, and Confirmation of Intent

Based on the Letters of Intent received, the Chinese side will conduct a preliminary selection process. Preliminary selection feedback will be provided to proposing teams between July and August 2026. Further technical coordination will be undertaken with the preliminarily selected project teams to confirm cooperation intentions.

3.3 Submission of Proposals and Final Selection

Preliminarily selected project teams shall submit formal Proposals by September 30, 2026 (specific requirements to be provided separately). The final selection and approval of cooperative projects will be completed in December 2026.

IV. Contact Information

CNSA Website: www.cnsa.gov.cn
Mr. Lin SUN: +86-10-87999895
cnsaico@email.cn

Attachment:

Project LOI Outline

I. Project Summary

Briefly describe the necessity and advancement of the project, performance parameters and technical design approach, development plan and team composition, etc.

II. Body Content

1. Necessity of the Project

1.1. Aim: Describe scientific or engineering objectives, exploration tasks, and expected outcomes.

1.2. Advancement: Compare the technical performance with international similar payloads.

1.3. Development foundation: Describe project development foundation, and team's experience and capabilities participated in similar missions/projects.

2. Performance and Technical Approach

2.1. Technical Approach: Describe operational principles, technical approach, and working modes.

2.2. Parameters: List specific parameters, e.g., exploration metrics, mass, power, lifespan, etc.

2.3. Interface requirements: Identify the interface requirements, including layout, mechanical, electrical, thermal, TT&C and other relevant items.

3. Development Plan

Describe work plan and milestones for different phases, including design, development, integration, and testing, etc.

4. Project Team

Describe the main development institutions and task allocations of the cooperative project.

Provide the information on submitting entities, project principal investigators, contact persons, as well as the name, address, telephone number, e-mail address and fax number of core team members.