

## 2023 Heliophysics Space Weather Vigil Focused Mission of Opportunity (Vigil FMO) Announcement of Opportunity Released

Number: NNH23ZDA0200

Release Date: June 22, 2023

Preproposal Conference Date: July 13, 2023

Mandatory Notice of Intent Due Date: August 9, 2023

Proposal Due Date: September 27, 2023

Short, Direct URL: <https://go.nasa.gov/VFMO2023>

The National Aeronautics and Space Administration (NASA) Science Mission Directorate (SMD) has released the Announcement of Opportunity (AO) final text for 2023 Heliophysics Space Weather Vigil Focused Mission of Opportunity (Vigil FMO). This AO was generated by the SMD Heliophysics Division's Heliophysics Space Weather Program to solicit an investigation that includes an instrument(s), e.g., extreme ultraviolet (EUV) imager, to be hosted on the European Space Agency (ESA) Vigil mission. A Vigil FMO investigation should:

- Advance understanding of solar variability manifested as “the sudden release of magnetic energy that enables both flares and coronal mass ejections (CME) to accelerate particles to high energy efficiently”;
- Enable the development “of advanced methods for forecasting and nowcasting of solar eruptive events and space Weather”;
- Make effective use of ESA’s Vigil instrument data in the proposed investigation; and
- Support objectives of the Vigil mission with the provision of low latency data for operational space weather applications.

[Vigil](#) is a European Space Agency (ESA) Space Safety Programme space weather mission to observe the Sun from the Sun–Earth Lagrange point L5. SMD's Heliophysics Space Weather Program conducts Principal Investigator (PI)-led space investigations and will manage this AO. All Heliophysics Space Weather investigations, including the Vigil FMO, must address NASA’s strategic heliophysics science goals:

- Explore the physical processes in the space environment from the Sun to the Earth and throughout the solar system;
- Advance our understanding of the connections that link the Sun, the Earth, planetary space environments, and the outer reaches of our solar system; and
- Develop the knowledge and capability to detect and predict extreme conditions in space to protect life and society and to safeguard human and robotic explorers beyond Earth.

The NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) is the official NASA source for the full text of the solicitation; therefore, please use the short URL provided or visit: <http://nspires.nasaprs.com/>, choose “Solicitations” at the top of the page, and

on the next page in the search box, input the number “NNH23ZDA0200.” In the event of any lapse in NASA operations, please visit NSPIRES for further information.

Prospective investigators from any category of U.S. organizations or institutions are welcome to respond. Specific categories of organizations and institutions include, but are not limited to, educational, industrial, and not-for-profit organizations; Federally Funded Research and Development Centers (FFRDCs), including the Jet Propulsion Laboratory (JPL); University Affiliated Research Centers (UARCs); NASA Centers; and other U.S. Government agencies. Non-U.S. organizations may participate on a no-exchange-of-funds basis. Both U.S. and non-U.S. participation are subject to China restrictions described in Sections *4.2.2 Restrictions Involving China* and *5.7.1 Overview of Non-U.S. Participation of the AO*.

All interested parties must read the Vigil FMO AO carefully. All proposals to this AO must comply with the requirements, constraints, and guidelines contained within the AO, as there are changes from the AO’s draft text.

The Science Office for Mission Assessments (SOMA) hosts the official “2023 Heliophysics Space Weather Vigil Focused Mission of Opportunity” website that provides further information, including Program Library and Question and Answer (Q&A) pages. SOMA will post inquiry responses at: <https://lws.larc.nasa.gov/vfmo/>.

Anonymity of persons/institutions who submit questions will be preserved. Proposers are encouraged to send comments and questions early so that they may be fully addressed at the optional, virtual Preproposal Conference (PPC) to be held three weeks after the release of the AO. Please consult the SOMA Vigil FMO website for forthcoming agenda and connection information. In order for questions to be addressed during the PPC, they should be submitted only by email one week prior to the event.

Vigil FMO AO questions or comments should be emailed to both James Spann, Space Weather Lead, [jim.spann@nasa.gov](mailto:jim.spann@nasa.gov), and Washito Sasamoto, Acquisition Manager Vigil FMO AO, [washito.a.sasamoto@nasa.gov](mailto:washito.a.sasamoto@nasa.gov). The email subject line must read “Vigil FMO” to be properly routed. Questions may be submitted until 14 days before the proposal due date. Answers will be posted on the Vigil FMO SOMA website no later than 10 days before the proposal due date.

Any costs incurred in preparing submissions in response to this email or to the full AO are incurred completely at the submitter's own risk.