2023 Heliophysics Space Weather Vigil Focused Mission of Opportunity (Vigil FMO)
Draft Announcement of Opportunity Released for Review and Public Comment

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Direct URL: https://go.nasa.gov/VFMODraft

The National Aeronautics and Space Administration (NASA) Science Mission Directorate (SMD) has released for comment a Draft Announcement of Opportunity (AO) for 2023 Heliophysics Space Weather Vigil Focused Mission of Opportunity. This draft solicitation was generated by the SMD Heliophysics Division's Heliophysics Space Weather Program (SWxP) for an investigation for a remote sensing extreme ultraviolet (EUV) imager instrument to be hosted on the European Space Agency (ESA) Vigil mission and to:

- 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 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. The Heliophysics SWxP conducts Principal Investigator (PI)-led space investigations relevant to SMD's Heliophysics Space Weather Program and will manage this Announcement of Opportunity (AO). Heliophysics Space Weather investigations 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 "NNH23ZDA007J." 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 will be welcome to respond when the final solicitation is released. Specific categories of organizations and institutions that will be welcome to respond 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 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 Draft AO carefully. All proposals to the final AO must comply with the requirements, constraints, and guidelines contained within the final AO, as there may be changes from the draft.

The Science Office for Mission Assessments (SOMA) hosts the official "2023 Heliophysics 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 prior to the release of the final AO. No later than February, 17, 2023, questions and comments regarding the Vigil FMO Draft AO should be emailed to both James Spann, Space Weather Lead, jim.spann@nasa.gov and Washito Sasamoto, Acquisition Manager Vigil FMO AO, washito.a.sasamoto@nasa.gov. The email subject line must read "Vigil FMO" to be properly routed.

NASA has not approved the final issuance of an AO for Vigil FMO, and this email does not obligate NASA to issue the final AO text and solicit proposals. 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.