

## Future Solicitation Notice for Heliophysics Explorer AO

NASA's Science Mission Directorate (SMD) is releasing this Community Announcement concerning its intention to solicit investigations for the Heliophysics Explorer Program. The Heliophysics Explorer Program conducts Principal Investigator (PI)-led space science investigations to advance NASA's strategic objective in heliophysics, which is to "Understand the Sun and its interactions with the Earth and the solar system, including space weather." Additional information concerning these areas of investigation is provided through appropriate links found on the SMD homepage at <http://science.nasa.gov/heliophysics/>.

The current state of planning calls for NASA SMD to release an Announcement of Opportunity (AO) in the Spring/early Summer of 2016 that will solicit proposals for Small Explorer (SMEX) missions to accomplish Heliophysics Explorer Program science objectives. NASA also plans to simultaneously release a solicitation for Heliophysics Explorer Missions of Opportunity (MO) through a NASA Announcement of Opportunity, Second Stand Alone Missions of Opportunity Notice (SALMON-2). A draft SMEX AO and draft SALMON-2 Program Element Appendix (PEA) are expected to be ready for release for comment in late 2015.

The PI-managed mission cost cap for a Heliophysics SMEX mission is expected to be no greater than \$115M in Fiscal Year (FY) 2016 dollars, not including the cost of any contributions of the NASA provided launch services, either an Expendable Launch Vehicle (ELV) or transportation to the International Space Station (ISS). Standard launch services to the ISS or on an ELV will be provided for SMEX missions at no charge against the mission cost cap. The standard ELV launch services offered will be similar to the "ELV Launch Service Class Option B," described in the Explorer Program Library's launch services document (e.g., <http://explorers.larc.nasa.gov/APSMEX/SMEX>). The Explorer Program Library's launch services document will be updated for the 2016 Heliophysics SMEX AO.

The PI-managed mission cost cap for a Heliophysics Explorer MO is expected to be no greater than \$55M in Fiscal Year (FY) 2016 dollars. NASA expects to solicit MO science investigations that are defined in the SALMON-2 AO as Partner MOs or Small Complete Mission (SCM) MOs, including investigations requiring flight on the International Space Station. SCMs that are suborbital-class have a \$35M PI-managed mission cost cap; this includes missions on ultra-long duration balloons or suborbital reusable launch vehicles (sRLVs). Other (not suborbital-class) MOs will have a \$55M PI-managed mission cost cap, including SCMs that use Cubesats.

The currently approved Heliophysics Explorer Program planning budget is sufficient to select and execute one SMEX mission and one MO.

The current planning is for the selection process to be done in two stages. In Step 1, it is anticipated that two or three SMEX missions and one to three MO missions may be selected for one-year Phase A concept studies. Each SMEX concept study would be funded up to \$1M in real year dollars, and each MO concept study would be funded up to \$250K in real year dollars. For Step 2, NASA will conduct a detailed review of the Phase A concept study reports. As a result of this second evaluation, NASA expects to select one SMEX mission and one MO mission to

proceed into Phase B and subsequent mission phases. NASA desires to launch the SMEX mission by summer of 2022.

Proposals in response to this AO will be due 90 days after its formal release. Participation will be open to all categories of U.S. and non-U.S. organizations, including educational institutions, industry, not-for-profit organizations, Federally Funded Research and Development Centers, NASA Centers, and other Government agencies.

The schedule for the solicitation is intended to be:

Release of draft AO (target):	Late 2015
Explorer workshop:	~1 month after draft AO release;
Release of final AO (target):	Spring/early Summer 2016
Preproposal conference:	~3 weeks after final AO release;
Proposals due:	90 days after AO release;
Selection of Phase A studies (target):	early Spring 2017
Concept study reports due (target):	early Spring 2018
Down-selection (target):	late Summer/Fall 2018

The Heliophysics Explorer Program SMEX AO and SALMON-2 amendment may contain provisions that differ substantially from this preliminary notice, in which case the provisions in the AO and SALMON-2 amendment will take precedence. The Heliophysics Explorer AO will be based on the Standard PI-led Mission AO Template available at [http://soma.larc.nasa.gov/standardao/sao\\_templates.html](http://soma.larc.nasa.gov/standardao/sao_templates.html). Proposers should read the Draft Heliophysics SMEX AO and SALMON-2 amendment carefully when they are released.

NASA has not approved the issuance of the Heliophysics SMEX AO or SALMON-2 amendment and this notification does not obligate NASA to issue the announcements and solicit proposals. Any costs incurred by prospective investigators in preparing submissions in response to this announcement are incurred completely at the submitter's own risk.

Further information will be posted on the Explorer Program Acquisition website at <http://explorers.larc.nasa.gov/> as that information becomes available. Questions or comments about this intention to release a Heliophysics SMEX AO may be addressed in writing or by E-mail to the Heliophysics Explorer Program Scientist:

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