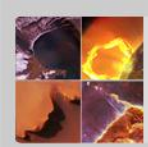


The Explorer Program

Presentation to the Astrophysics Subcommittee

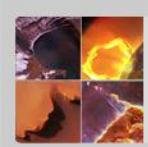
Wilton Sanders
Explorer Program Scientist
Astrophysics Division
NASA Science Mission Directorate

March 27, 2014



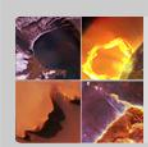
Astrophysics Explorer Program

- Current Astrophysics Explorer Missions:
 - Operating (and will be included in the 2014 Senior Review)
 - Swift (MIDEX), launched 2004 November 20
 - Suzaku (MO – partnered with JAXA), launched 2005 July 10
 - NuSTAR (SMEX), launched 2012 June 13
 - In Implementation
 - ASTRO-H (MO – partnered with JAXA), scheduled for launch in 2015
 - NICER (MO), targeted for transportation to ISS in 2016
 - In Formulation
 - TESS (EX), targeted for launch in 2017
- Future AOs
 - SMEX and MO in late summer/early fall 2014 for launch ~ 2020
 - EX and MO NET 2016 for launch ~ 2022



2014 Astrophysics Explorer AO

- Community Announcement released on 2013 November 12 that NASA will solicit proposals for SMEX missions and Missions of Opportunity.
- SMEX to be solicited via the Standard AO, MO to be solicited via a SALMON-2 Program Element Appendix (PEA), and U.S. Participating Investigators (USPI) are solicited separately through ROSES.
- Categories of MO:
 - Partner Mission of Opportunity (PMO)
 - Small Complete Mission (SCM) including ISS & suborbital-class (Ultra-Long-Duration Balloons (ULDB), Suborbital Reusable Launch Vehicles (sRLV), CubeSats)
 - New Missions using Existing Spacecraft (NMES)
- Draft AOs targeted for spring 2014, with Explorer Workshop ~ 2 weeks later.
- Final AOs targeted for late summer/early fall 2014, with Pre-Proposal Conference ~ 3 weeks after final AO release. Proposals due 90 days after AOs release.



2014 Astrophysics Explorer AO

- PI Cost Cap in FY2015 dollars for Phases A-E:
 - \$125M for SMEX; \$65M for MO, except for suborbital class MOs, which are capped at \$35M.
 - CAA discussion on February 11 did not result in any change to AO cost cap
- ISS is allowed for full mission SMEX
- Access to space provided by NASA for ISS or expendable launch vehicle (ELV) SMEX and for ISS or ULDB MO
- Science enhancement options (SEOs) are allowed
- Missions are Class D except for PMO, which depends on host mission
- Two-step process. Step 1 selects 2-3 SMEX missions and 1-2 MOs for 1-year Phase A concept studies, funded at \$1M for SMEX and \$250K for MOs. After detailed review of the Phase A Concept Study Reports, Step 2 down-selects 1 SMEX and 1 MO for Phase B and subsequent phases.
- Anticipate SMEX launch readiness date no later than December 2020
- More info at <http://explorers.larc.nasa.gov/APSMEX/>