

# 2014 Astrophysics SMEX Concept Study Q & A

<b>Change Log</b>		
<b>Rev.</b>	<b>Date</b>	<b>Description of Changes</b>
01	12/10/2015	Added Q&A 1 and 2
02	02/03/2016	Added Q&A 3
03	02/09/2016	Added Q&A 4 and 5
04	03/09/2016	Added Q&A 6 and 7
05	03/11/2016	Added Q&A 8
06	04/28/2016	Added Q&A 9 through 11
07	05/12/2016	Added Q&A 12
08	06/15/2016	Added Q&A 13 and 14
09	06/23/2016	Added Q&A 15 and 16
10	06/24/2016	Added Q&A 17
11	06/28/2016	Added Q&A 18, made correction to Q&A 16: "2 hardcopies of the signed original," not "1 signed, original hardcopy."

**Q-1 The Astrophysics Explorer Guidelines for the Phase A Concept Study refers to 'a sample International Agreement' being available in the Explorer Program Library (from requirement CS-83). I am unable to find this within the library. Can you point me to this item?**

Two sample international agreements have been posted the program library (Juno with Belgium and MSL with France). A full agreement has not been posted because they are becoming country/partner unique and one is not the same as another. Additionally, the legal language is constantly changing and NASA does not want proposers to waste time on parts of the agreement that have changed (or worse share with a partner what they think the language is and thus make it all the more difficult for NASA to change it later).

**Q-2 The NASA-provided launch vehicle performance characteristics and payload envelope dimensions that are listed in the "ELV Launch Services Program Information Summary" are those of the Pegasus launch vehicle. Should the teams assume that Pegasus launch vehicle will be used and design their missions accordingly?**

The launch vehicle for Astrophysics SMEX 2014 has not been chosen. The contract to procure the SMEX 2014 launch vehicle will be competed and selected in the future, and the launch vehicle may or may not be Pegasus. Launch vehicle constraints stated in the "SMEX AO ELV Launch Services Program Information Summary" are minimum capabilities that NASA commits to deliver in support of the downselected SMEX proposal. The proposers may not assume any specific launch vehicle at this time.

**Q-3 Bottom of page 2 of the Astrophysics Explorer Guidelines for the Phase A Concept Study says only 1 signed, original hardcopy of the CSR is to be submitted by the due date, but requirement CS-5 specifies two hardcopies. Please clarify this inconsistency.**

Two hardcopies of the CSR are required to be submitted by the CSR due date.

**Q-4 Requirement CS-12 Requires a 300-word summary on the cover page. (Note that CS-12 implies that this summary is “on” the cover page.) However, on page 14 of the Phase A Guidelines where page limits are defined there appears to be a contradiction for section A (Cover Page and investigation Summary) “No page limit, but be brief”. Which is it? I.e. do we put a 300-word summary on the cover page or may we follow the cover page with a “brief” investigation summary?**

The Cover Page in its entirety has no page limit and needs to be brief, however, a summary of the investigation is not to exceed 300 words.

**Q-5 Table on Page 14 of the CSR guidelines indicates that a number of the Appendices should be in the electronic version only, yet Requirement CS-6 states that the PDF files must be identical to the hardcopy original. Given that we are only submitting two hardcopies of the CSR, should these hardcopies include all appendices, or should the hardcopies and pdf files actually be different?**

Follow directions in the table on Page 14 to determine what sections are to be excluded from the printed version.

**Q-6 In Requirement CS-81, we assume that the “Data” in Data Management Plan refers to documentation and not scientific data. Is this a correct assumption?**

“Data” in Data Management Plan refers to the science data. Requirement CS-81 is closely linked to Requirement CS-23, and Data Management Plan in both requirements refers to the proposer’s plan to disseminate the science data.

**Q-7 Section 1.1 of the SMEX Mission Assurance Requirements (MAR) states that “Developer Mission Assurance Implementation Plan (MAIP) and Compliance Matrix drafts are due with AO response”. However, these are not listed as requirements in the Concept Study Guidelines. Can you please clarify what is expected?”**

Requirement CS-45 states that the Small Explorers *Mission Assurance Requirements – Mission Risk Classification for Class D Payloads* document will apply. The MAR documents should state, “MAIP and Compliance Matrix drafts are due with CSR response.”

**Q-8 Can I get a clarification on page limits for the SMEX 2014 Concept Study Report? If we have a single instrument, do we have 98 or 100 pages for Sections FGHIJ? This relates to the number of pages for 'each instrument'. In Step 1, the analogous question came up (the wording regarding page for each instrument the in the guidelines is the same). There, Q&A #7 answered it: A *single-instrument* proposal gets zero additional pages.**

The rules for page allocations for multiple instruments for step-2 are analogous to the rules for step-1. Therefore, a single-instrument proposal gets no additional pages; a two-instruments proposal get two additional pages, and so on.

**Q-9 The content description refers to a Mission Definition Requirements Agreement (MDRA) examples in the Program Library. As of this date there are no such examples. By when do you anticipate having examples?**

A sample MDRA document has been posted to the program library.

**Q-10 According to the CSR guidelines and Criteria document, the Phase B contract implementation data is due at the time of the CSR submission. Would it be possible to delay the submission of the Phase B contract implementation data until the site visit?**

The answer is institution dependent, and also affects Bridge Phase proposals:

- Because the Explorer Program Office does not issue contracts to NASA Centers, these institutions are not required to address the Bridge Phase proposal or Appendix M.4 Phase B Contract Implementation Data.
- Because of constraints on modifications to JPL task orders, missions for which the Explorer Program Office awarded the institution Phase A task orders are not required to provide Bridge Phase proposals for JPL's role in Phase B. Draft Phase B contract implementation data, which will facilitate modification of the applicable JPL task order(s) upon downselection, are not required until each mission's site visit.
- Institutions to which the Explorer Program Office awarded a Phase A contract will be required to provide Bridge Phase proposals at the time of the CSR submission. However, provision of Appendix M.4 Phase B Contract Implementation Data may be delayed from CSR submission to each mission's site visit.

All other Phase B requirements (e.g., Section J. Preliminary Design and Technology Completion [Phase B] Plan) remain in effect.

**Q-11 Can investigations that reside at institutions that have NASA-approved Safety and Mission assurance standards use their own institutional practices in lieu of "The Small Explorers Mission Assurance Requirements (MAR) – Mission Risk Classification for Class D Payloads?"**

No, the SMEX MAR for Class D is the standard against which quality assurance and all other mission assurance related processes are evaluated. In this manner, all CSRs will be evaluated in the same manner against the same mission assurance standards.

**Q-12 How long in advance of the site visits will the draft Significant Weaknesses, questions, and requests for information be sent to the CSR study teams?**

The draft Significant (*i.e.*, likely to affect the risk rating) Weaknesses, questions, and requests for information will be sent to the CSR study teams exactly 8 days before the start of your site visit. For example, if a site visit is to start at 8 am PT, this milestone will also occur at 8 am PT (11 am ET).

**Q-13 Part of requirement CS-75 asks for personal letters of commitment from all the Co-Is. We believe that NSPIRES will automatically request a confirmation of their commitment. If correct, may we so indicate in M1 and not include copies of the personal letters of commitment in our CSR?**

Letters of commitment from the Co-Is shall be included in Appendix M1 as specified in Requirement CS-75.

**Q-14 For the purpose of evaluating figures of merit for the two x-ray polarimetry missions, how is the net observing time defined, specifically, is there an agreed upon fraction of time for earth occultation?**

You may assume a value that you deem to be reasonable for your proposed instrument and orbit, but clearly state the value that you have assumed.

**Q-15 Requirement CS-60 says “the rows shall be standard WBS elements”, yet the Template for Table 1 indicates that they should be “organizations” ... which one do you want for Template 1?**

**Requirement CS-60 says “The columns in the table shall be grouped and subtotaled by mission phase and shall be labeled with the appropriate fiscal years. Fiscal years that span more than one mission phase shall be split into two columns by mission phase.” It is not shown this way in the template. In the template, the Phases are rows.**

This confusion is, unfortunately, due to an error in the Concept Study Guidelines. The first sentence of Requirement CS-60 should refer to Cost Table Template 3a and 3b, **not** Cost Table Template 1. Also, Requirement CS-72 should **not** refer back to Requirement CS-60. Cost Table Template 1, which is discussed in Requirement CS-72, is intended to be a cost summary of organizations by phase.

**Q-16 The address and the phone number for delivering the CSRs is listed as TBD in the Astrophysics Explorer Guidelines for the Phase A Concept Study. Can you provide an address and phone number for delivery of the CSRs?**

CDs/DVDs containing the CSRs and all required files, along with 2 hardcopies of the signed original, are due July 19, 2016, at:

Astrophysics Explorer 2014 SMEX CSR  
NASA Research and Education Support Services (NRESS)  
Suite 500  
2345 Crystal Drive  
Arlington, VA 22202

Telephone for commercial delivery: 202-479-9030

**Q-17**      **The AO states “Mission data will be made fully available to the public ... in the minimum time necessary but, barring exceptional circumstances, within six months following its collection.” As all-sky survey data takes 6 months to obtain, releasing data from the time the first data in the survey arrives would require team to release partially completed surveys. We would like to ask if all-sky survey data can be considered “collected” starting from the time when each survey is completed. This would allow us to release data in a natural cadence of completed surveys a few months after each survey finishes.**

The Concept Study Report should demonstrate that the proposed data release schedule is in accordance with the AO requirements. If there are "exceptional circumstances" that call for a data release schedule that is not in accordance with the AO requirements, then the CSR needs to explain and convincingly justify the proposed data release schedule.

**Q-18**      **What requirements, if any, are levied on NASA missions proposed for bandwidth restriction in the S- and X-band regardless of ground system provider?**

Please review the *Spectrum Data Space Communications Bands* document and the *S-Band Overview* document located in the Program Library.