



SMEX

Concept Study & Downselect

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Major Changes from the Draft SMEX CSR Guidelines

- CSR due June 18, 2004 by 4 p.m. Eastern time
- Each paper copy of the CSR must include a CD that:
 - Doesn't have a paper label
 - It & its files are compatible with both PC's & Mac's
 - Includes the following in separate files:
 - o The entire CSR in a single PDF file, identical to the hardcopy, that is searchable & has bookmarks
 - o The Fact Sheet in a PDF file
 - o The Cost Tables, with headings for rows & columns, in files that are:
 - Tab delimited text
 - Optionally, also in Excel

Major Changes from the Draft SMEX CSR Guidelines (cont.)

- Subsystem descriptions must include a description of on orbit operations
- Contributions will need to include:
 - Letters of commitment that are clear on the funding source & explicit on the contribution, from all the organizations involved, signed by an official authorized to commit the organization
 - Mitigation plans in the event that the contribution is not delivered or a statement saying no mitigation is possible
 - Acknowledgement of the complexities & risks involved with the contributions & plans to handle them

Major Changes from the Draft SMEX CSR Guidelines (cont.)

- NASA Software IV&V Facility
 - Projects must still negotiate use but don't pay for it
 - It is to be considered as a provider of extra IV&V not a replacement for project IV&V
- Once a mission is confirmed into Phase C, no rephasing of Phase E costs to Phase C/D will be permitted
- URL's are now allowed & encouraged in the references
- No page limit on the Table of Contents but it must include Figures & Tables
- Explorer Program Library
 - Updated the Space Science Enterprise Strategic Plan
 - Updated the OSS E/PO Annual Report
 - Added NASA Lessons Learned Database
 - Added link to NPG 8000.4, Risk Management Procedures and Guidelines

Major Changes from the Draft SMEX CSR E/PO Guidelines

- The planning should be at a comparable level of detail & maturity as the rest of the proposed investigation
- The budget tables should be filled out to the extent that requested details are known
- The narrative & the budget tables should provide sufficient information to evaluate the adequacy of the effort as well as the resources applied
- There should be good & clear correspondence between activities & the funding requested or contributed
- The E/PO narrative & budget tables should show a good correspondence with each other, both for the total program & for the phased schedule of proposed activities
- Information should be provided in the narrative and/or the letters of endorsement that show where contributed resources offset requirements & provide leverage
- New point of contact for questions

SMEX CSR Guideline Overview

- All program constraints, guidelines, definitions, & requirements in the AO are still valid unless otherwise noted
- The CSR is to be a self-contained document
 - Do not assume that evaluators have read or have access to the original proposal
- Launch Services
 - Those proposing launches where there is known risk of launch delays beyond the project's control (e.g. Space Shuttle launch, shared ELV launch) must address how they will manage that risk within the proposed cost & schedule
 - If the proposed launch opportunity is a secondary or co-manifested payload on an ELV, the proposer must identify the opportunity & provide evidence that the launch service provider agrees to manifest the investigation

SMEX CSR Guideline Overview (cont.)

- Freedom of Choice for Space Operations
 - Proposers are free to use services from sources other than NASA
 - NASA services include communications, tracking mission operations, flight dynamics, & data processing
 - Costs for these services whether provided by NASA or other sources must be included in cost estimate
 - Project must conduct trade studies on use of NASA versus any alternative
 - Trade study may be in Phase A or no later than Phase B
 - Must use NASA services if they meet mission objectives at a life-cycle cost to the project or to the OSS that is less than or equal to any proposed alternatives
 - If OSS determines that the proposed approach does not result in the lowest life cycle cost, OSS may direct the Explorer project to modify its approach
 - See “NASA’s Mission Operations & Communications Services” in the SMEX Library

SMEX CSR Guideline Overview (cont.)

- In Phase 1, Science was prioritized; in Phase 2 implementation details & commitments will be emphasized; therefore definitized, final planning will be expected in the Report
- If Project is chosen at Downselection, the proposed costs submitted with the Concept Study Report are final unless NASA elects to renegotiate them during the Project Kickoff
- No cost growth after selection is allowed, therefore, best possible cost estimates with margins should be proposed
- For government provided services (launch services, Mission ops, comm., etc) get latest revised estimates & letters of commitment from POC's in reference documents
- Full cost accounting

SMEX CSR Guideline Overview (cont.)

- If obligation authority in excess of identified costs is required, indicate the authority needed by year
- Detailed cost proposal with cost or pricing data as defined in FAR 15.401 is required for Phase B through E
- *Guidelines & Criteria for the Concept Study Report*, defines the preparation & submission requirements
- Reports are single volumes to be organized as outlined in the Guidelines document
- Page formats & limitations are defined: note foldout = 1 page, no more than 7 foldout pages
- No reference to proposals; evaluation only of material from (1) Concept Study Report & (2) Briefing materials from Site Visits

SMEX CSR Guideline Overview (cont.)

- Letters of endorsement must be provided from all organizations participating in & critical to the investigation including contributions & all E/PO partners (see Part II Section M 1 of the CSR)
- Technical Approach & Management plan must be finalized
- A draft Mission Definition & Requirements Agreement (MDRA) is a required Appendix (see Part II Section M 5 of the CSR)
- Definitized planning for E/PO, New Technology, & SDB
- Appendices other than specified are NOT allowed

SMEX CSR Guideline Overview (cont.)

- Technical, Management, Cost & Other (TMCO) factors
 - TMCO evaluation defined in *Guidelines & Criteria for Concept Study Report* document in SMEX library (<http://explorer.larc.nasa.gov/explorer/sel.html>)
 - In Stage 1, TMC Risk was evaluated in only 3 degrees each: Low, Medium, or High
 - In Stage 2/Downselect, 9 degrees for TMCO will be used for evaluation
 - Cost Realism will be an important risk consideration
 - Proposals with insufficient cost margins will likely be considered High Risk
 - New technology will add risk unless flight qualified (TRL 8) or have flight qualified/demonstrated backups
 - All pertinent criteria for Other factors (E/PO, SDB, & New Technology) must be addressed

SMEX CSR Guideline Overview (cont.)

- Safety, Reliability, & Quality Assurance Requirements (SR&QA)
 - We will evaluate you against the requirements in the current version of the SR&QA document in the Explorer Program Library
 - After downselection, the projects that proceed into Phase B will have to adapt to evolving SR&QA requirements