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# Technical, Management, and Cost (TMC) Requirements

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Discovery Program Concept Study Kickoff Meeting



# Guidelines and Criteria for the Phase A Concept Study

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- The DRAFT Discovery Guidelines and Criteria for the Phase A Concept Study is item 24 in the Discovery Program Library (DPL).
  - <http://discovery.larc.nasa.gov/dpl.html>
- The document contains instructions for the Concept Study Report for full Mission Investigations.
- Please send any questions or comments on Guidelines to Acquisition Manager with copies to Program Scientist.
- A final version will be released as soon as the lessons learned from New Frontiers can be incorporated.



# Guidelines and Criteria for the the Phase A Concept Study

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- The Guidelines and Criteria for the Phase A defines all Concept Study Report (CSR) preparation and submission requirements;
- Format of CSR specified in Sections A through M with page limits
- CD containing PDF version of CSR and specified cost tables.
- The CSR is to be a self-contained document. Do not reference original proposal.
- Appendices other than those specified are not allowed.



# Technical, Management, and Cost (TMC) Requirements

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- The Guidelines and Criteria for the Phase A Concept Study, contain instructions on required Technical, Management and Cost information in Sections G, H, J, K, L, and M.
  - Cost Sections K and L - Format of information specified but no page limit
  - Appendices on specific topics - no page limit, foldouts may be used.
- In addition to the instructions in the Guidelines document, note: All program constraints, guidelines, definitions, and requirements given in the AO are still valid for the CSR except as noted herein.



# Technical, Management, and Cost (TMC) Requirements

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- Science Implementation - Section F
  - If proposed, the technical approach of any SEO should also be addressed in this section.
- Management – Section H
  - Reference to NPR 7120.5D in this section and other places. Note that this reference will be changed to NM 7120-81, an interim directive issued for NPR 7120.5D until the 5D version is revised, which is available through NODIS at [http://nodis.hq.nasa.gov/policy\\_letters/NM\\_7120-81\\_C.pdf](http://nodis.hq.nasa.gov/policy_letters/NM_7120-81_C.pdf)



# Cost Plan

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- Cost Plan for Mission Phases A through F
- Cost included in the PI Mission Cost - within the cost cap
  - All costs unless specifically excluded.
  - Full cost (including CM&O) for NASA civil servants and facilities - same rules as step one costs.
  - Launch Service costs above the standard launch vehicle.
  - SC costs above incentive (1% of PI Mission Cost).
- Costs excluded from the PI Mission Cost - outside the cost cap
  - Contributed costs.
  - SC costs up to incentive.
  - Any SEO.



## Cost Caps and Constraints

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- Cost Caps have not changed
  - Mission cost cap \$425M (FY2010)
- Contribution limits have not changed
  - The sum of contributions of any kind to the entirety of the flight hardware for a Discovery Mission investigation may not exceed one third (1/3) of the PI Mission Cost cost in U.S. dollars.
- Proposal cost change limit for CSR
  - During the Concept Study, the PI Mission Cost shall not increase to exceed the total cost cap of \$425M (FY2010) or more than 20% of the proposal PI Mission Cost.



# Appendices – Section M - LOC

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## 1. Letters of Commitment (LOC)

- Contributed items: dollar value of contributions must be included in Total Mission Cost.
  - Any organization offering to contribute .... Goods or services, see list of items.
  - Any organization offering to contribute time and/or services of Co-Is including E/PO participants. Letter must include amount of FTE and signature of authorizing official.
- Any organization or participant named in the proposal that will provide critical hardware, facilities, good, or services, whether contributed or not.
  - The letter must include an acknowledgement of the work to be performed, a commitment to perform the work as proposed and for the cost proposed, and the signature of an authorizing official of the organization.
  - The dollar value of the contract or subcontract that is expected to be funded through NASA if the proposal is selected must be included in the PI Mission Cost.



## Appendices – Section M - LOC (continued)

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### 1. LOC (continued)

NASA or Government providers for services and/or facilities offered in the AO for which resources are limited.

- This includes the JPL Deep Space Network (DSN) office, Multimission Ground Systems and Services (MGSS) office, and others as applicable. The letter must include an acknowledgement of both the quantity and timing of resources required for the proposed effort, as well as the estimated cost of these resources and the signature of an authorizing official of the organization. The cost of the services and/or facilities must be included in the PI Mission Cost.
- See NASA’s Mission Operations and Communications Services document in the DPL.
  - DSN/Advanced MultiMission Operations System (AMMOS) services/tools letter of commitment or a preliminary Detailed Mission Requirements (DMR) document.
  - Space Network (SN) - preliminary Project Service Level Agreement (PSLA).



## Appendices – Section M

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### 2. Relevant Experience and Past Performance

- Proposals must include a discussion of *relevant* experience and past performance by the major team partners in meeting the requirements of projects *similar* to the subject of the CSR.
- ... must include a description of each project; its relevance to the subject of the CSR; the proposed performance and the actual performance; the planned delivery schedule of data to the PDS and the actual delivery schedule of data to the PDS, the proposed cost and actual cost; the proposed schedule and actual schedule; an explanation of any differences between proposed performance, cost and schedule and what was actually achieved; and points of contact for the past project's customer.
- If the customer ... United States government, then the contract number must be included along with current technical point(s) of contact and phone number(s).
- For projects that are not yet complete, the current projected performance, cost, and schedule must be used in place of actual values.



## Appendices – Section M

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### 2. Relevant Experience and Past Performance (continued)

- In addition, NASA may review, the major team partners past performance on other NASA and/or non-NASA projects or contracts that provide insight into those institutions past performance on airborne or space-based instrument development and investigations and associated development processes including engineering processes, management process, operations, data analysis and delivery of data to the PDS or other appropriate data archives. In conducting the evaluation, **NASA reserves the right to use *all* information available.**

### 3. Resumes

### 4. Phase B Contract Implementation Data



## Appendices – Section M

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### 5. Data Management Plan

- **Proposers must discuss all plans (schedules, costs, and deliverables) and their approach and commitment to delivering project data to the appropriate NASA data archives** and indicate such in the plans and schedules for Phase B. In addition, **this discussion must provide assurance that that all activities (womb to tomb) have been considered and included with appropriate resources separately allocated and budgeted.** To ensure PDS compatibility, the Archive Preparation Guide, available at <http://pds.nasa.gov/tools/archiving.shtml/>, should be used as a guideline. Close coordination with a Project's designated Lead Node is necessary during development of the Data Management Plan to ensure that appropriate PDS formats and standards are adhered to.



## Appendices – Section M

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6. Any Incentive Plan(s)
7. Technical Content of Any International Agreements
8. Discussion on Compliance with U.S. Export Laws and Regulations
9. Planetary Protection Approach
10. Sample Curation Plan
11. End of Mission Plan
12. Compliance with Procurement Requirements by NASA PI Proposals
13. Master Equipment List
14. Heritage
15. SDB Subcontracting Plan
16. Additional Cost Data to Assist Validation



## Appendices – Section M

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### 17. Science Change Matrix

- Should the Phase A effort result in any science change (including a science implementation change) from that originally proposed, provide the new requirement, the old requirement, the rationale for the change, and the section/paragraph where the change occurs in the CSR.

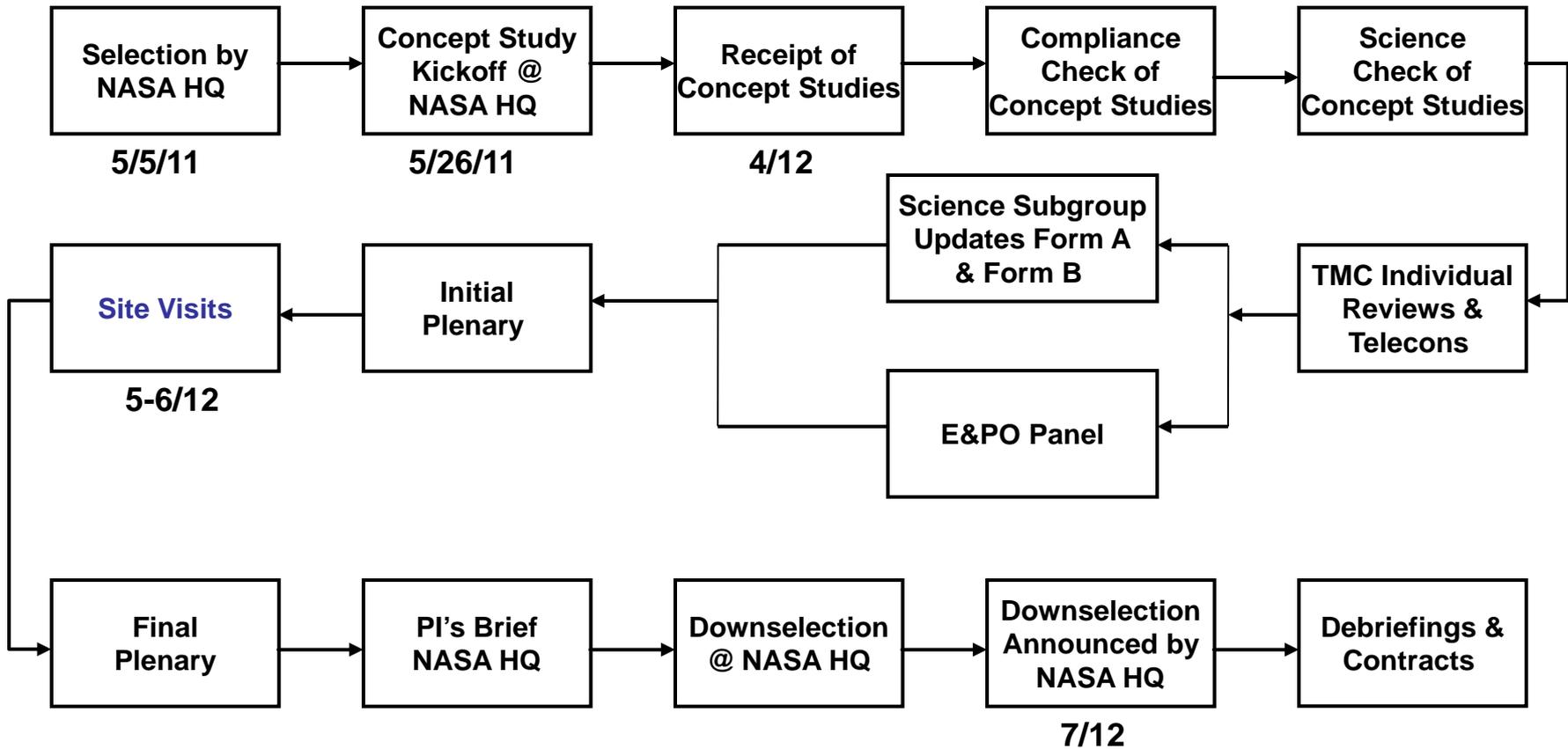
### 18. Communications Design Data

### 19. Acronyms and Abbreviations

### 20. References (optional)



# Discovery CSR Evaluation Flow





## Site Visits

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- Site Visits with Oral Briefings will be used to clarify implementation details and commitments and show additional work done since the CSR.
- Site Visits may start as early as April 2012 for Mission Investigations at location sites to be determined by the PI/Proposal Team and coordinated with the Discovery TMC Chair, Carlos Liceaga by email at [Carlos.A.Liceaga@nasa.gov](mailto:Carlos.A.Liceaga@nasa.gov) or by telephone at 757-864-6191
- Briefings at each Site Visit will be limited to 8 hours with 1 additional hour for a site tour. (Suggest a schedule of 8:00 a.m. - 6:00 p.m. including 1 hour lunch).
- All Site Visit presentations/briefings should be in a plenary session with all TMC Evaluation Team members attending - no splinter sessions.
- Written questions and/or requests for information will be submitted to the PI/Proposal Team approximately 7 days before the Site Visit. All teams will have the same lead time.
- Only the information presented during the Site Visit and contained in the CSR will be considered during the evaluation.
- The Site Visit Team will require a private room to have lunch and caucus.