

Debriefing Policy

Debriefing Policy from NASA Far Supplement (NFS) 1872.505

It is the policy to debrief, if requested, unsuccessful proposers of investigations in accordance with FAR 15.5. The following shall be considered in arranging and conducting debriefings:

- (a) Debriefing shall be done by an official designated by the responsible Program AA. Any other personnel receiving requests for information concerning the rejection of a proposal shall refer to the designated official.
- (b) Debriefing of unsuccessful offerors shall be made at the earliest possible time; debriefing will generally be scheduled subsequent to selection but prior to award of contracts to the successful proposers.
- (c) Material discussed in debriefing shall be factual and consonant with the documented findings of several stages of the evaluation process and the selection statement.
- (d) The debriefing official shall advise of weak or deficient areas in the proposal, indicate whether those weaknesses were factors in the selection, and advise of the major considerations in selecting the competing successful proposer where appropriate.
- (e) The debriefing official shall not discuss other unsuccessful proposals, ranking, votes of members, or attempt to make a point-by-point comparison with successful proposals.
- (f) A memorandum of record of the debriefing shall be provided to the Chairperson of the Steering Committee.

Ground Rules

1. This debriefing is a service to the proposing teams to provide constructive feedback with on the findings of the evaluation process. No debate of these findings is expected/permitted.
2. The debriefing can ONLY cover what the Evaluation process found with respect to YOUR Concept Study Report (CSR) ...details of the Downselection will NOT be discussed.
3. We will not comment about findings with regards to other CSRs.
4. Questions may be asked at any time, however, the debriefing period is limited, therefore, to assure that all findings are covered, all will need to be disciplined about our pace of progress.
5. One and only one debriefing per team will be given and only in rare cases will questions be answered or actions be completed at any later time.
6. We will provide ALL findings, the TMC Risk Rating, and the rationale for your selection/non-selection.
7. Be aware that it is our intention that our debriefings (except for findings) be identical for all CSR teams in all respects to the extent possible.
8. These will be the findings of MANY people (not mine or the TMC Chair's findings): There were approximately 30 people involved in producing the findings that will be related to you.
9. This debriefing may not be recorded.

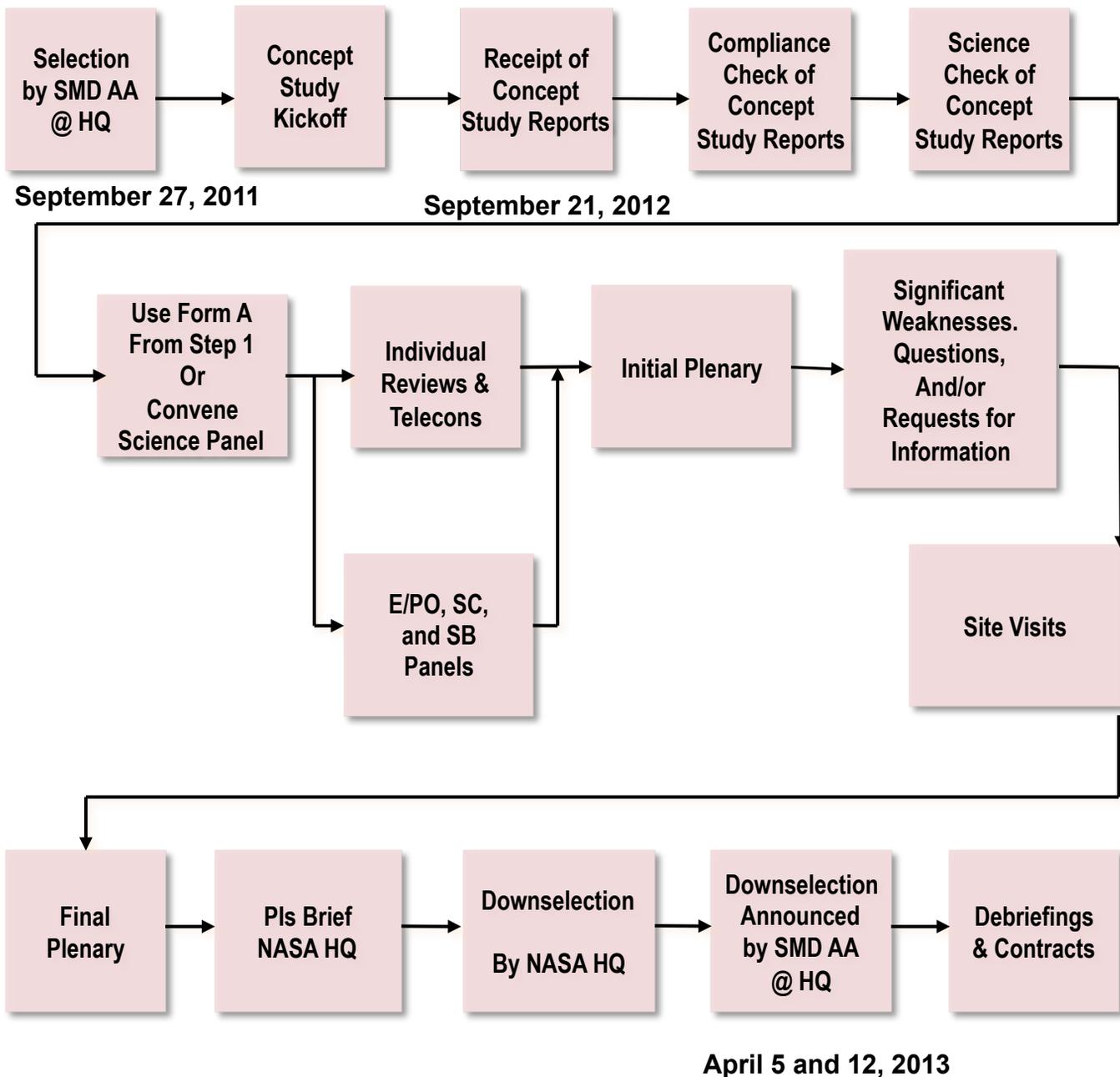
Guidelines

- Contact the Program Officer listed in the letter sent to you by NASA informing you of the disposition of your EX full mission or MO Concept Study Report, to schedule an oral debrief (either in person or by phone), should you desire one. Debriefs are offered as a service to the PI and are not required. Debriefs will be held either at NASA Headquarters, 300 E St. SW, Washington D.C., or at an off-site location in the neighborhood of NASA Headquarters.
- A maximum of two hours may be scheduled for a debrief.
- You may bring up to ten members of your team with you. Other members may join by telephone, but you must arrange the telecon and have your own meet me number. Please note that all expenses and arrangements for attending a debriefing are the responsibility of the attendee. Please send names of all members of your team to the Program Officer (PO) at least three days ahead of the meeting, so that visitor badges may be prepared for them in advance. If you plan to bring any non-US citizens with you, please consult the Program Officer at least a week ahead of the scheduled meeting. If the PO is planning to hold the meeting at NASA Headquarters, he/she will let you know what additional information is required to arrange for security clearance of the foreign national(s).
- Please visit the Explorer 2011 acquisition website: http://explorers.larc.nasa.gov/EX/ex_index.html for an overview of the debrief policy and process. The following items are covered.
 - Ground Rules for Debriefing
 - The Evaluation Process
 - Selection Process
 - The debrief process will be more efficient if you come prepared
- At the debrief meeting, the following process will be executed.
 - The Program Officer will review the evaluation and selection process for all concept study reports
 - The Program Officer will read the major findings of the Science Merit and Science Implementation merit.
 - The Explorer Acquisition Manager will read the major findings of the Technical, Management, and Cost (TMC) review, addressing the third evaluation criterion
 - The Program Officer will provide you a copy of the written debrief material consistent with SMD policy.
- The above process will be followed for a telephone debrief as well with the difference that the written debrief material will be provided to you in the form of a password protected PDF file or through the NASA Large File Transfer system. The Program Officer will give you the password by telephone.

Explorer 2011

Phase A Evaluation Process

CSR Evaluation Flow



Explorer 2011 CSR Evaluation Criteria

(Explorer 2011 AO §7.2.2 or SALMON AO PEA H7 §7.2.1, and Part I of the Explorer 2011 Guidelines and Criteria for the Phase A Concept Study)

- **Scientific Merit of the Proposed Investigation – 25%**
 - Compelling nature and scientific priority of the proposed investigation's science goals and objectives
 - Programmatic value of the proposed investigation
 - Likelihood of scientific success
 - Scientific value of the Threshold Science Mission
- **Scientific Implementation Merit and Feasibility of the Investigation – 20%**
 - Merit of the instruments and mission design for addressing the science goals and objectives
 - Probability of technical success
 - Merit of the data analysis, data availability, and data archiving plan
 - Science resiliency
 - Probability of science team success
 - Merit of any science enhancement options (SEOs) or science/technology enhancement options (STEOs), if proposed
 - Likelihood of scientific success
 - Maturity of proposed Level 1 science requirements and Level 2 project requirements
- **Feasibility of the Mission Implementation, Including Cost Risk – 50%**
 - Adequacy and robustness of the instrument implementation plan
 - Adequacy and robustness of the mission design and plan for mission operations
 - Adequacy and robustness of the flight systems
 - Adequacy and robustness of the management approach and schedule, including the capability of the management team
 - Adequacy and robustness of the cost plan, including cost feasibility and cost risk
 - Adequacy of the risk management plan
 - Ground systems
 - Approach and feasibility for completing Phase B

Explorer 2011 CSR Evaluation Criteria

(Part I of the Explorer 2011 Guidelines and Criteria for the
Phase A Concept Study)

Quality and Merit of the Education and Public Outreach, Student Collaboration, and Small Business Contracting Plans – 5%

- **Criteria D:** Quality of Plans for Core E/PO Program.
 - Intrinsic Merit
 - Relevance to NASA's Objectives
 - Cost
 - Program Balance Factors
- **Criteria E:** Overall Merit of Student Collaboration (SC), if proposed
 - Is it separable from the main mission
 - Meritorious or not?
 - SC Implementation Merit
 - Technical, management, and cost feasibility
 - Educational merit
- **Criteria F:** Merit of the Small Business Subcontracting Plans
 - Acceptable or Needs Work?

TMC Evaluation Sub-Factors

- **Instrument**
 - Maturity and technical readiness
 - Ability to meet mission requirements
 - Design, accommodation, interface, and heritage
 - Hardware and software designs, heritage, and margins
 - Development and integration processes, products and activities
 - Instrument systems engineering
 - Environmental concerns
 - New technology and backup plans
- **Mission Design and Operations**
 - Spacecraft design margins
 - Concept for mission operations
 - Launch services
 - Mission resiliency
- **Flight Systems**
 - Hardware and software designs, heritage and margins
 - Development and integration processes, products and activities
 - Spacecraft systems engineering, qualification, verification, mission assurance, launch operations, and entry/descent/landing
 - New technology and backup plans
 - Maturity and technical readiness of the spacecraft, subsystems, and operations systems
- **Management and Schedule**
 - Organizational structure and WBS
 - Project level systems engineering
 - Commitment, education, spaceflight experience and past performance of key team members and implementing organizations, partners and contributors
 - Schedule interdependencies and margins
 - Project and schedule management tools
- **Cost**
 - Risk, realism and completeness
 - Basis of estimate (BOE)
 - Reserves by phase
 - Comparison with TMC estimates
- **Risk Management**
 - Recognition of risks and mitigation plans for retiring those risks
 - Descope plan and decision milestones
- **Ground Systems**
 - Operations plans, facilities, hardware and software, processes and procedures
- **Phase-B**
 - Activities and products, organizations and schedule
- **Comments to Selection Official**
 - International participation/ITAR
 - SC, is it separable from the main mission?

Notes:

For MOs, NASA evaluated only the portions of the investigation that are funded by NASA including interface to the Sponsoring Mission. Not all Factors or Sub-Factors are applicable to MOs.

Science Evaluation Process

- The evaluation criteria of **Scientific Merit of the Proposed Investigation** was **not** reevaluated unless it is determined that the science has changed from that described in the Step 1 proposal
- **Scientific Implementation Merit and Feasibility of the Investigation** were evaluated by a panel of experts that are scientific peers of the proposers.
- CSRs were evaluated in two rounds of plenary sessions, with Site visits occurring in between.
 - The Initial Plenary is used to identify significant issues related to Criterion B based on the initial evaluation of the CSR. Initial Form Bs are reviewed.
 - The Significant Weaknesses (SWs), questions, and/or requests for information will be sent to each study team 6 days prior to its Site Visit
 - Site Visits with Oral Briefings will be used to clarify implementation details and commitments. The study team may address weaknesses identified in the concept study and provide updates on the concept study since submission of the Concept Study Report

Science Evaluation Process (2)

- A Final plenary round was held to evaluate Forms based on the information in the CSRs and clarifications.
 - Both Major and Minor, Strengths and Weakness will be considered in the Grade for all Forms
 - Polling will be held twice on the Criterion B grade. The final polling is recorded. For the final polling, the individual grades are recorded and the median grade is calculated and recorded as the final polling.
 - If there is a divergence of opinion, there may be additional rounds of discussion and polling.
 - SWs, questions, and/or requests for information generated during the Final Plenary may result in an additional rounds at or after the Final Plenary.
- Each CSR evaluation was chaired by a highly experienced Scientist, with HQ Program Manager (CS) serving as the Discipline Scientist Lead.
- Each proposal received at least four rounds of presentation and discussion.
- For each CSR, this process resulted in:
 - A Scientific Merit adjectival rating.
 - A Scientific Implementation Merit adjectival rating.
 - Supporting documentation for these ratings.

TMC Evaluation Process

- The Technical, Management, and Cost (TMC) review of criteria **Feasibility of the Mission Implementation, Including Cost Risk** was accomplished with 1 panel.
 - The Acquisition Manager and his Backups, all civil servants at the Science Office of Mission Assessments (SOMA), oversaw the process and co-chaired the review.
 - SOMA is an HQ office located at LaRC and is firewalled off from the rest of LaRC
 - Each CSR evaluation was led by a highly experienced spacecraft engineer.
- TMC evaluators were a mixture of contractors, consultants and civil servants who were experts in their respective fields.
 - Evaluators read all CSRs.
 - Evaluators participated in rating all CSRs.
 - Additionally, specialist reviewers were called upon when highly specific technical expertise, not otherwise represented on the panel, was needed.
 - Specialists only read the relevant sections of the proposals for which their expertise was necessary.
 - Specialists only provided findings to the appropriate panel and did not participate in rating any proposals.

TMC Evaluation Process (2)

- Evaluators and specialists participated in weekly, secure, teleconferences to develop preliminary findings (strengths/weaknesses).
- When all CSRs had been initially evaluated, the review met in initial plenary sessions to finalize findings and risk ratings.
 - The Initial Plenary is used to identify significant issues related to Criterion C based on the initial evaluation of the CSR. Initial Form Cs are reviewed.
 - The Significant Weaknesses (SWs), questions, and/or requests for information will be sent to each study team 6 days prior to its Site Visit
- Site Visits with Oral Briefings will be used to clarify implementation details and commitments. The study team may address weaknesses identified in the concept study and provide updates on the concept study since submission of the Concept Study Report
- A Final plenary round was held to evaluate Forms based on the information in the CSRs and clarifications.
 - Both Major and Minor, Strengths and Weakness will be considered in the Grade for all Forms
 - Form C will be reviewed three times. Polling will be held twice on the Form C risk rating. The final polling is recorded. For the final polling, the individual grades are recorded, the median calculated and the final grade recorded which reflects the Form C Risk rating of the median of the polling.

TMC Evaluation Process (3)

- Ratings and findings were normalized during the plenary meetings to ensure that all CSRs were evaluated fairly and held to the same standards.
- For each CSR this process resulted in:
 - A Feasibility of Mission Implementation adjectival rating (low-LOW, medium-LOW, high-LOW, low-MEDIUM, medium-MEDIUM, high-MEDIUM, low-HIGH, medium-HIGH, or high-HIGH Risk).
 - Supporting documentation for this rating.

Intellectual Property Protection

- All CSR and evaluation materials were considered proprietary.
- Viewing of CSR materials was only on a need-to-know basis.
- Each reviewer (except civil servants) signed a Non-Disclosure Agreement prior to any proposals being distributed to that reviewer.
- All CSR materials were numbered and controlled, and a record was maintained as to which reviewer had what materials.
- Reviewers were not permitted to discuss CSRs with anyone outside their review team (science or TMC).
- All proprietary information exchanged between reviewers was exchanged *via* the secure NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES), *via* the secure Explorers collaboration wiki site, *via* the secure Science Office of Mission Assessments (SOMA) collaboration site, or *via* encrypted email, FedEx, fax, or regular mail. Non-plenary discussions among more than three reviewer parties was conducted via controlled teleconferencing services.

Conflicts of Interest

- All NASA conflict of interest policies were followed for both individual and organizational conflicts of interest.
- Members of Evaluation Panels are cross checked against the list of organizations listed in the selected Step 1 proposals to ensure no individual or organizational COI exists with the planned evaluators. Evaluators are required to raise any potential COIs.
- After the Concept Study Reports (CSRs) are received, all members of the Evaluation Panels will again be cross checked against the lists of personnel on each CSR and organizations mentioned in each CSR to ensure no individual or organizational COI exists on the list of evaluators.
- In addition, all evaluators will review the final list of conflicted organizations and be required to divulge whether they have any financial, professional, or personal potential conflict of interest and whether they work for a profit making company that directly competes with any profit making proposing organization.
- Any potential COI issue is discussed with the Explorer Program Acquisition Scientist and/or the Heliophysics Program Scientist, and the SMD Deputy Associate Administrator for Research, and documented in the Heliophysics Explorer or Astrophysics Explorer Downselect COI Mitigation Plan.

Export Control

- All proposals could have contained information that could not be “exported” according to US law.
- “Export” here means communicating the information to non-US persons:
 - Citizens of the US or those with Resident Alien status (Green Card) are “US Persons”
- All reviewers were admonished not to disclose, either physically, visually, or verbally, the content of those redacted sections to the foreign participants on the panel.
 - NASA HQ Program Acquisition and Discipline Scientists possessed lists of export-controlled materials in each proposal and policed panel discussions.

Selection

(Explorer 2011 AO §7.1.3 or SALMON AO §7.1.3)

- Selection Official: Associate Administrator for SMD
- Selection Board including AAA, DAAs, DDs, and representatives from OGC, OCE, and Procurement
- Selection Factors (Explorer 2011 AO §7.3 or SALMON AO §7.3) include
 - Evaluations and selection rationales
 - Past performance of proposers
 - Cost to NASA
 - Other programmatic factors (e.g., balance, funding, policy)

Finding Definitions

Science

Major Strength: A facet of the response that is judged to be well above expectations and substantially contributes to the Scientific Merit or Scientific Implementation Merit.

Minor Strength: A strength that substantiates the Scientific Merit or Scientific Implementation Merit.

Major Weakness: A deficiency or set of deficiencies taken together that are judged to substantially detract from the Scientific Merit or Scientific Implementation Merit.

Minor Weakness: A weakness that detracts from Scientific Merit or Scientific Implementation Merit.

TMC

Major Strength: A facet of the response that is judged to be well above expectations and can substantially contribute to the ability to meet technical commitments on schedule and within cost.

Minor Strength: A strength that is substantial enough to be worthy of note and brought to the attention of study team in debriefings.

Major Weakness: A deficiency or set of deficiencies taken together that are judged to substantially affect the ability to meet the proposed technical objectives within the proposed cost and schedule.

Minor Weakness: A weakness that is substantial enough to be worthy of note and brought to the attention of study team in debriefings.

Grade Definitions – Criterion C

- The Criterion C evaluation serves to determine, for each proposed investigation, the level of risk of implementing the investigation, as proposed, on time and within cost.
- The Criterion C Risk Ratings of **LOW Risk**, **MEDIUM Risk**, and **HIGH Risk** will each be subdivided into 3 categories for a total of 9 Risk Rating categories. In general:
 - **LOW Risk:** There are no problems evident in the CSR that cannot be normally solved within the time and cost proposed. Problems are not of sufficient magnitude to doubt the study team’s capability to accomplish the investigation well within the available resources. “Envelope adequate”. (low-LOW Risk, medium-LOW Risk, or high-LOW Risk)
 - **MEDIUM Risk:** Problems have been identified, but are considered within the study team’s capabilities to correct within available resources with good management and application of effective engineering resources. Mission design may be complex and resources tight. “Envelope tight”. (low-MEDIUM Risk, medium-MEDIUM Risk, or high-MEDIUM Risk).
 - **HIGH Risk:** One or more problems are of sufficient magnitude and complexity as to be deemed unsolvable within the available resources. “Does not fit within the Envelope”. (low-HIGH Risk, medium-HIGH Risk, or high-HIGH Risk)

TMC Risk Envelope

Envelope: All TMC Resources available to handle known and unknown development problems that occur.

LOW Risk: Required resources fit well within available resources.



Box defines envelope of available (Technical, Management, Cost Resources)

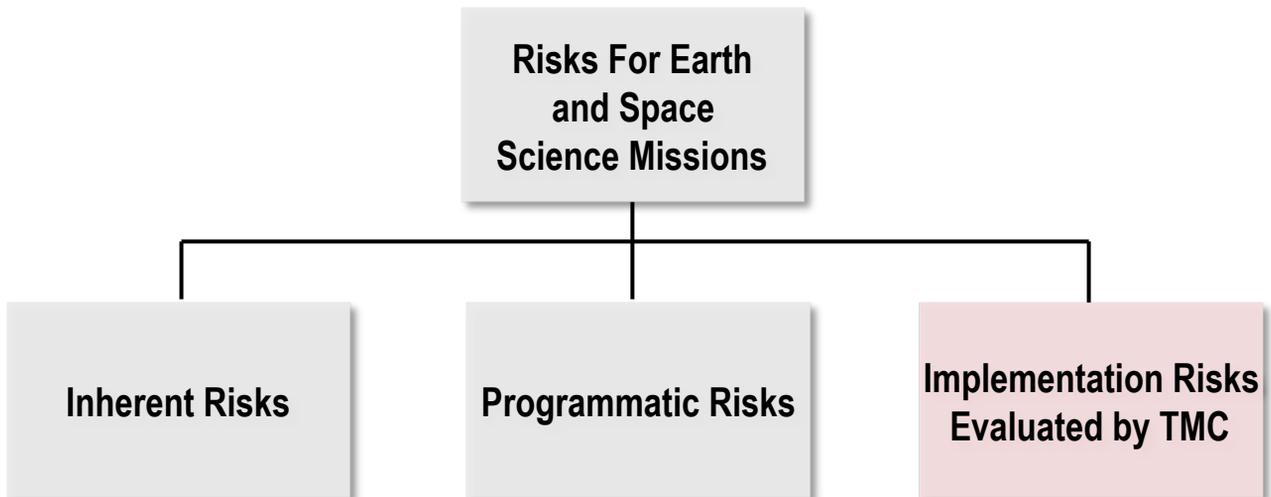
MEDIUM Risk: Required resources just barely inside available resources.



HIGH Risk: Required resources DO NOT fit inside available resources.



Mission Risks



Risks that are unavoidable to do the mission:

- Launch environments
- Space environments
- Mission durations

Risks that are uncertainties due to matters beyond project control:

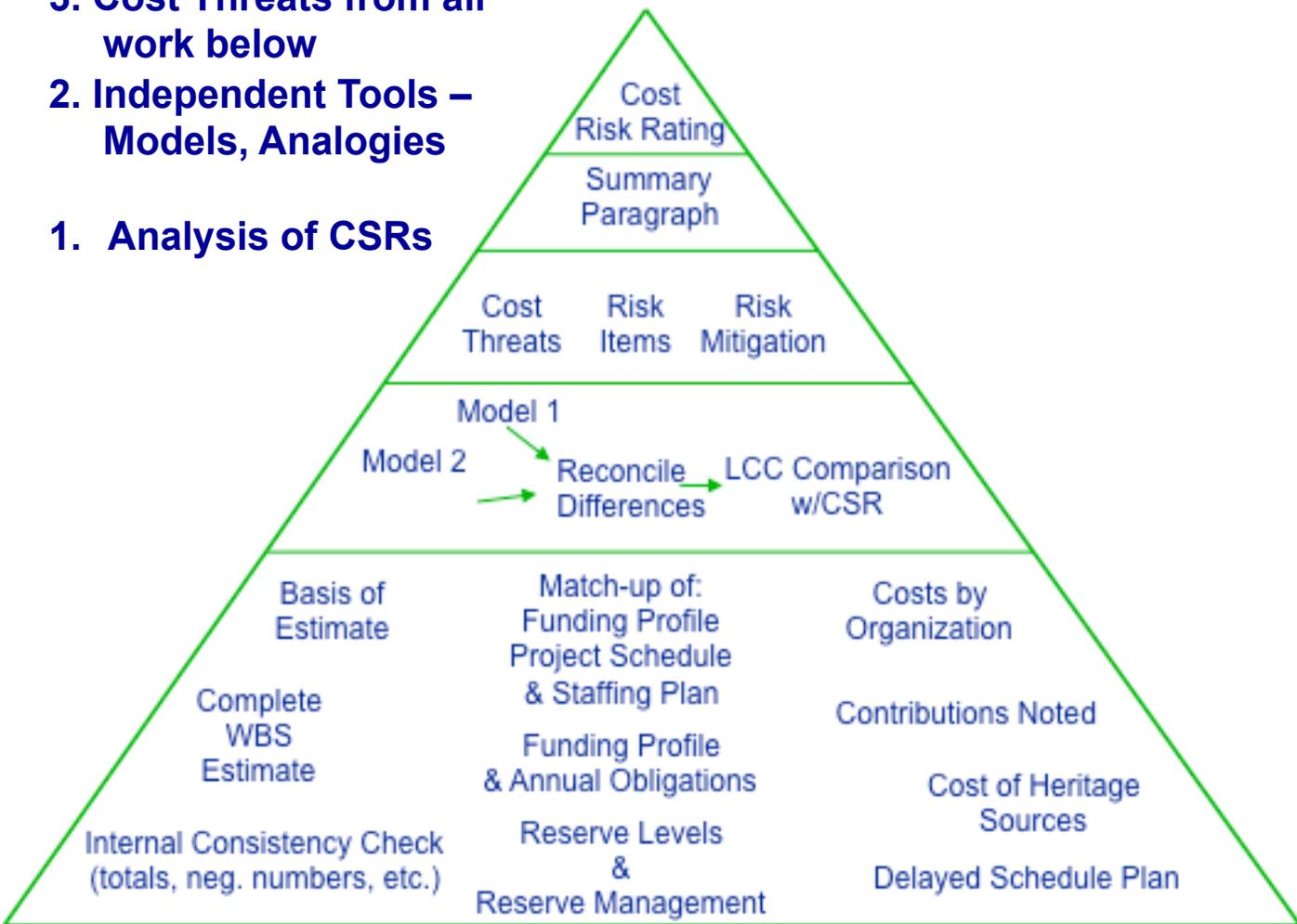
- Environmental Assessment approvals
- Budgetary uncertainties
- Political impacts
- Late/non-delivery of NASA provided project elements
- Stability and reliability of proposed partners and their contributions

Risks that are associated with implementing the mission:

- Adequacy of planning
- Adequacy of management
- Adequacy of development approach
- Adequacy of schedule
- Adequacy of funding
- Adequacy of Risk Management (planning for the known and unknown)

TMC Independent Cost Assessment Pyramid

5. Overall Cost Risk Rating
4. Cost Assessment Summary
3. Cost Threats from all work below
2. Independent Tools – Models, Analogies
1. Analysis of CSRs



Cost Risk Definitions

Cost Risk	Definition
LOW	<p align="center"><i>Cost Envelope is adequate – expect success.</i></p> <ul style="list-style-type: none"> - The proposer's estimate (<i>with reserves</i>) agrees closely with the work, staffing, and schedule proposed, fits within the program cap and any other budget constraints, and is verified by TMC independent analysis. - The proposed cost reserve is adequate to address cost threats identified by TMC, and to fund unexpected needs. - The resource management plan indicates strong, active management of resources throughout implementation.
LOW/ MEDIUM	<p align="center"><i>Cost Envelope is somewhat tight, but project should succeed.</i></p> <ul style="list-style-type: none"> - TMC identified one or more significant cost threats or weaknesses with regard to the proposer's estimate, cost reserves, and/or resource management. Overall impact of identified threats and weaknesses should be manageable. - TMC independent analysis verifies proposer's costs.
MEDIUM	<p align="center"><i>Cost Envelope is tight. Success requires diligent oversight of resources.</i></p> <ul style="list-style-type: none"> - TMC identified one or more significant cost threats or weaknesses with regard to the proposer's estimate, cost reserves, and/or resource management. Cost impact of threats may be underestimated by proposer. Overall impact of identified threats and weaknesses should be manageable. - TMC independent analysis verifies some or most of proposer's costs.
MEDIUM / HIGH	<p align="center"><i>Cost Envelope is very tight. It is likely the project will require more funding.</i></p> <ul style="list-style-type: none"> - TMC identified one or more major cost threats or weaknesses with regard to the proposer's estimate, cost reserves, and/or resource management. Cost impact of threats appears underestimated by proposer. Overall impact of identified threats and weaknesses will be challenging to manage within funding and/or schedule constraints. - TMC independent analysis could not verify significant elements of proposer's costs.
HIGH	<p align="center"><i>Project exceeds the Cost Envelope and is expected to require substantially more funding.</i></p> <ul style="list-style-type: none"> - TMC identified one or more major cost threats or weaknesses in the proposer's estimate, cost reserves, and/or resource management. Overall impact of identified threats and weaknesses exceeds proposed resources and/or available resources to cover them. Threats are not acknowledged, or are underestimated by proposer. - TMC independent analysis could not verify proposer's costs.