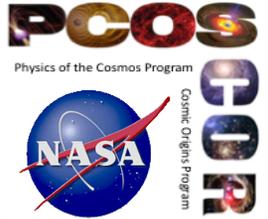




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Decadal 2020 – Flagship Studies

Thoughts; Context; Questions; Possible approaches

That will hopefully result in a

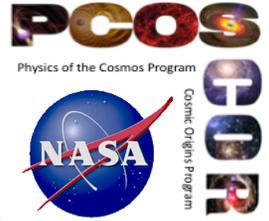
**A meaningful report contents
Decadal Studies Pause & Learn #2
June 1 & 2, 2017**

Mansoor Ahmed
Gary Blackwood



The final study deliverable (Management Plan)

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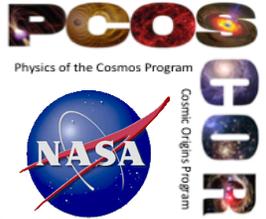


- ***Science case for the mission***
- ***Mission and observatory performance requirements that deliver these science capabilities***
- ***Design reference mission, including straw-man payload trade studies conducted to arrive at the final mission concept***
- ***Technology assessment:***
 - *Current status, at the time of submittal of the final report*
 - *Roadmap for maturation to both TRL-5 by the start of Phase-A and TRL-6 by the mission PDR*
 - *Phased resources needed to achieve the required technology maturity levels by the start of Phase A and by mission PDR*
- ***Cost assessment, major technical, and risk burn-down plans as a function of science capability.***
- ***Top-level schedule for major phases of development including a notional launch date (assuming entering phase-A as a post-WFIRST budget wedge opens) and top schedule risks.***
-



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Final Report Objectives

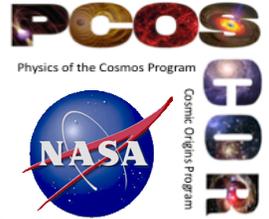


- **Teams have developed a compelling science case in a DRM**
- **Measurement requirements to meet science goal identified**
- **Driving payload & mission requirements are flowing down from the science case**
- **Mission architecture defined at a reasonable level to**
 - Assess feasibility
 - Identify technology shortfalls
 - Produce a cost estimate by the CATE process
- **Identified Science capability vs. changes in key assumptions**
 - LV
 - Technology availability
 - Etc
- ***Interim Report: Judge the progress and share info with other teams***
- ***Final Report: Compete to answer all potential questions the decadal committee may ask***



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Metrics Decadal 2020 May Use



- **To narrow down the content list, let's think about what we believe the Decadal committee needs in order to prioritize the concepts.**
 - If you were the decadal committee member, what questions would you have. For example:
- **What's the science case and how sensitive it is to the following:**
 - Budget: At what cost point is the science no longer worth doing for the money required to achieve it.
 - Would the minimum science still rank higher than the other 3.
 - Achieving the technology requirements: Is there a graceful degradation of science if the enabling technologies fall short
- **Is the best case science worth the cost of the mission.**
- **Is the cost estimate most conservative possible. Did the cost estimate account for all cost drivers.**
- **Any others?**