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**Carbon Phenolic (CP) Heat-shield:  
Challenges to Ensuring Future Availability**

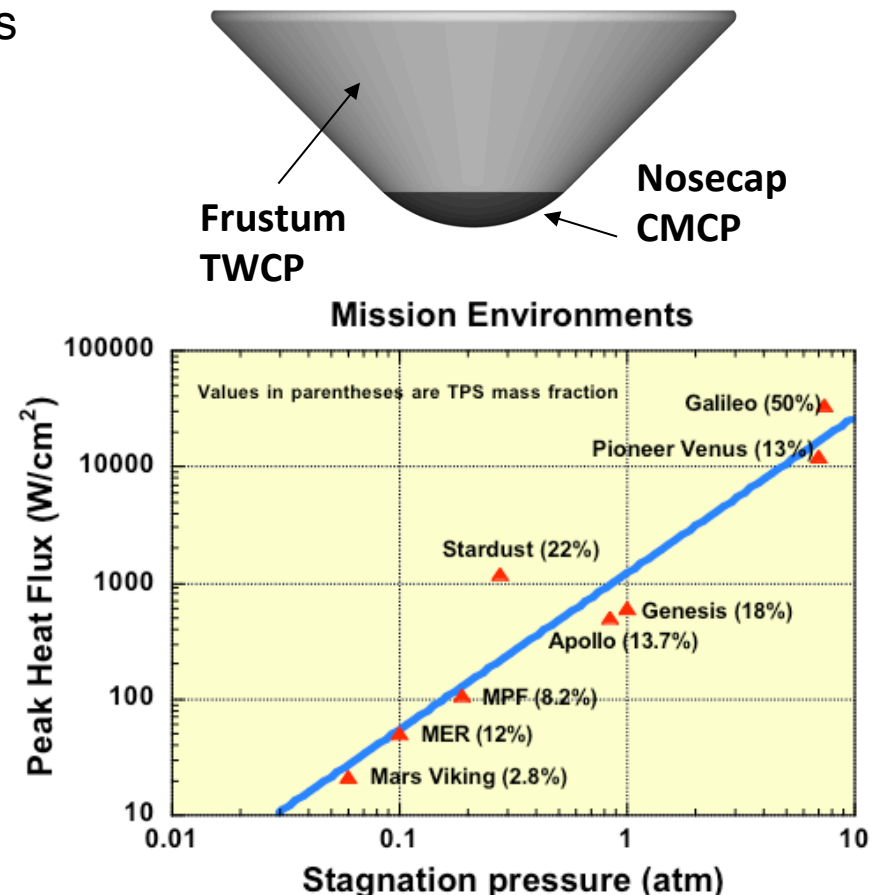
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**VEXAG Meeting #9  
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# Carbon Phenolic (CP) Heat-shield: Challenges to Ensuring Future Availability



- CP is needed for the direct entry to Venus (& OP); refer to the White paper to the to Decadal Survey - Very brief history
- Current status: manufacturing and raw materials:
  - Primary raw material (Rayon)
  - End of Shuttle program has begun to impact the manufacturing capability
- Recent actions and investments by SMD
  - Mars program funded the carbonization of the Heritage (Avtex) rayon
  - ISPT funded carbonization of small quantity of alternate rayons
  - Manufacturing capability, current and future gaps are being evaluated



**SMD, OCT and OCE are sponsoring a Workshop “ Carbon Phenolic and Beyond” – Feb.’ 2012**

- Seeking participation from communities like VEXAG and OPAG
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