Adapting Mission Assurance for Small Satellites

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Adapting Mission Assurance: Key Takeaways

1

Adaptive mission assurance is harder than full mission assurance, not easier

- *"Not for beginners" - requires good judgement and good mentoring – no safety net*
- *Need workforce training that is open to all*

2

There is a systemic mismatch of expectations

- *Customers say they want Class D when they really want Class A at Class D cost and schedule*
- *Asking for alternative grade parts but requiring upscreening – which can induce failure*

3

Information firewalls do not contribute to mission success

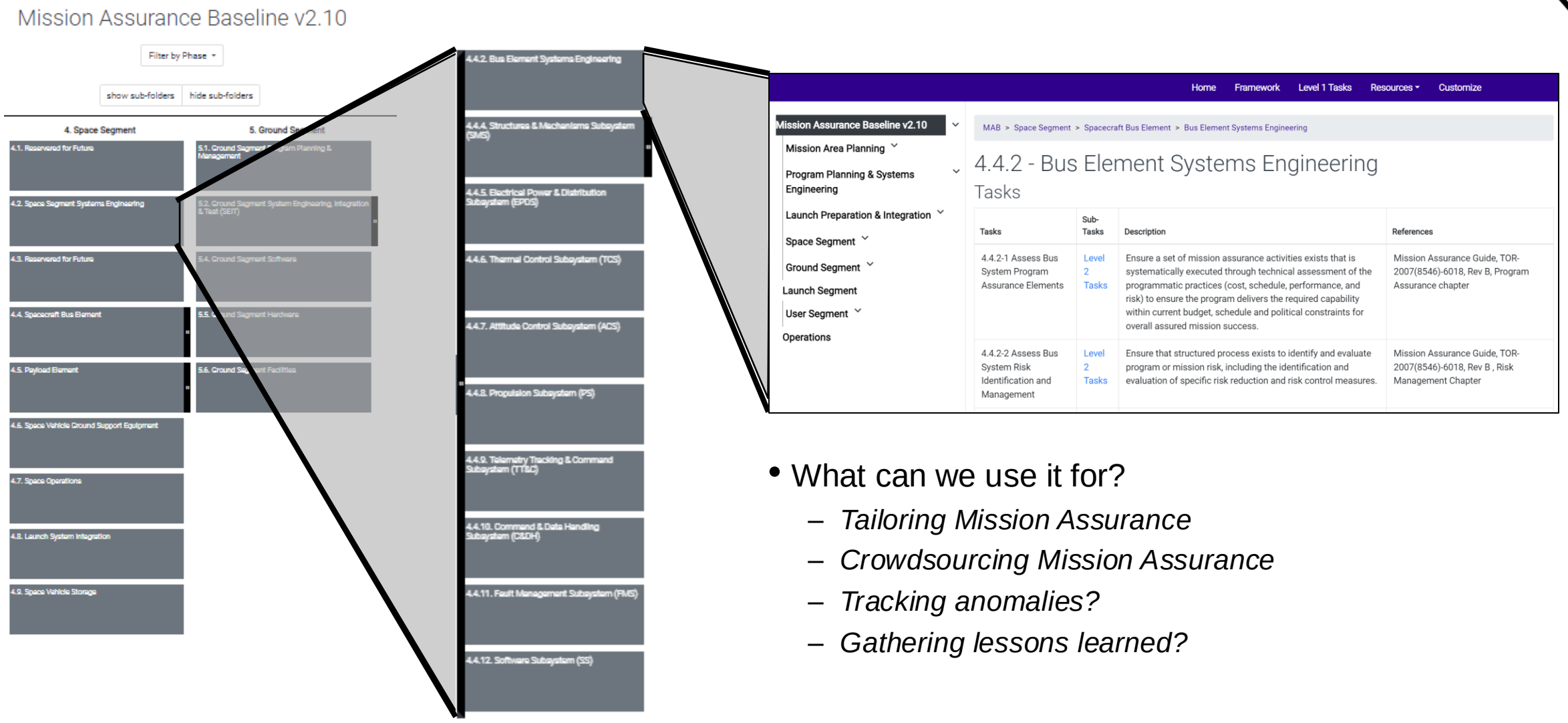
- *Data sharing is necessary but needs to be coupled with protection of reputation*
- *Philosophy is fine, but tools and techniques should be more widely circulated*

4

Culture change is happening… slowly

- *Tendency to miscommunicate risk and confuse decisions and outcomes*
- *Need a forward-looking (not retrospective) "just culture" – no one wants to make a mission fail*
- *Seeds of enterprise thinking are starting to grow*

Mission Assurance Baseline Matrix



- What can we use it for?
  - *Tailoring Mission Assurance*
  - *Crowdsourcing Mission Assurance*
  - *Tracking anomalies?*
  - *Gathering lessons learned?*

Adapting Mission Assurance Workshop

Next Workshop
November 13-14, 2024
NASA Ames Research Center
https://cvent.me/0Q973B

In the meantime,

https://www.nasa.gov/smallsat-institute/