

Supporting "Test Like You Fly" with Simulators and Test Beds



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Agenda

- Introduction & Introductions
- Presentation – Eric Hollmeier
- Presentation – John Bowers
- Discussion – TLYF Drivers for Simulators & Test Beds
- Summary
- Recommendations



Notional Ground System Elements

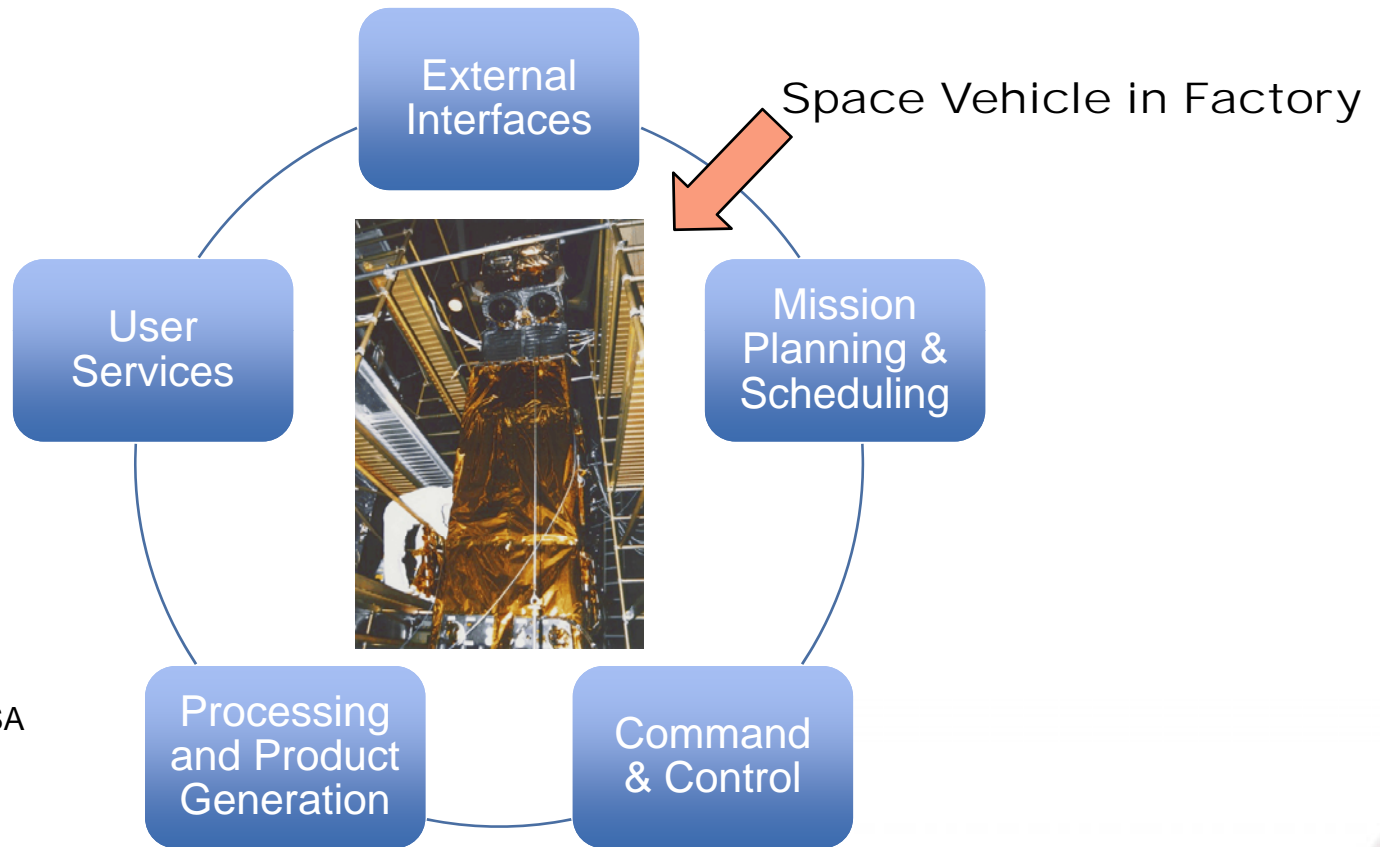


Photo Courtesy NASA

- What simulators / test beds are needed for each element?
 - *Are there other elements*



Goals / Objectives

- Determine top level simulators / test beds needs to support ground system “like you fly” testing
- Identify key requirements for needed simulators / test beds
- Capture lessons from past experiences
- Identify topics for future work

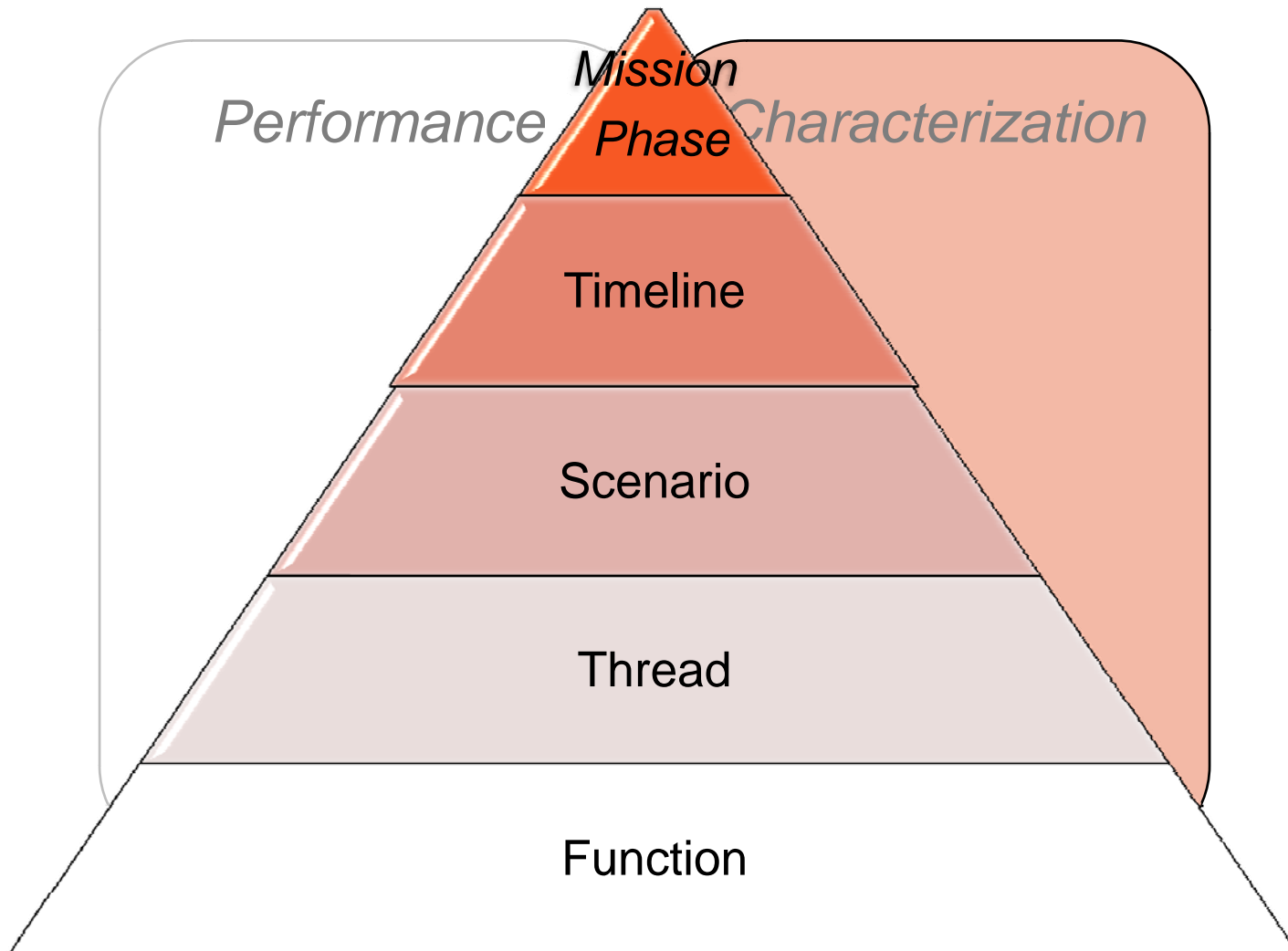


What is “Like You Fly” Testing?

- Fly the Mission on the Ground (Days-in-the-Life Tests)
 - *Fly Long & Aggressively Enough to Let The System Fail*
- Using Representative Mission Timelines and Sequences
- Nominal and Stressing Days
- Use all elements involved in the mission during the timeline period
- Include applicable mission characteristics



Progression of LYF Tests



Discussion Topics

- Space vehicle simulators
- Other simulators for each element in ground system
- Fidelity & other requirements
- Validating simulators for TLYF

